

## TRAINING OF EDUCATIONAL SOCIAL SKILLS IN MOTHERS OF PREADOLESCENTS WITH HEARING IMPAIRMENT

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**ABSTRACT.** A Parental Social Skills Program was conducted with mothers of preadolescents with hearing impairment. Two mothers were included in the Experimental Group (EG) and two in the Control Group (CG). The study evaluated the effects of the Program on the repertoire of behaviors of mothers and children using the Interview Script for Parental Social Skills (IS-PSS) and the Child Behavior Checklist (CBCL). The Jacobson Truax method was applied to analyze data of the RE-HSE-P, achieving reliable changes concerning the increment of positive educational social skills and child social skills for the EG. Data of the CBCL indicated internalizing behavior disorders in the EG and in one participant of CG, and externalizing behavior disorders in one participant of the CG before and after intervention and on the follow-up evaluation (for the EG). It is believed that the development of programs like this may constitute an important aid in auditory rehabilitation.

**Keywords:** Hearing impairment; preadolescents; parent training.

## TREINAMENTO DE HABILIDADES SOCIAIS EDUCATIVAS COM MÃES DE PRÉ-ADOLESCENTES COM DEFICIÊNCIA AUDITIVA

**RESUMO.** Desenvolveu-se um Programa de Treinamento de Habilidades Sociais Educativas com mães de pré-adolescentes com deficiência auditiva. Duas mães constituíram o Grupo Experimental (GE) e duas, o Controle (GC). Buscou-se avaliar os efeitos do Programa no repertório de comportamentos das mães e dos filhos por meio do Roteiro de Entrevista de Habilidades Sociais Educativas Parentais (RE-HSE-P) e o do *Child Behavior Checklist* (CBCL). Foi utilizado o método *Jacobson Truax* para análise dos dados do RE-HSE-P, obtendo mudanças confiáveis em relação ao incremento das habilidades sociais educativas positivas e das habilidades sociais infantis para o GE. Os dados do CBCL indicaram problemas de comportamento internalizantes no GE e em um participante do GC e problemas de comportamento externalizantes em um participante do GC na pré e na pós-intervenção e na avaliação *follow up* (para o GE). Acredita-se que o desenvolvimento de Programas nestes moldes pode se constituir em um importante aliado da fonoterapia.

**Palavras-chave:** Deficiência auditiva; pré-adolescentes; treinamento de pais.

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## ENTRENAMIENTO DE HABILIDADES SOCIALES EDUCATIVAS CON MADRES DE PREADOLESCENTES CON DEFICIENCIA AUDITIVA

**RESUMEN.** Se desarrolló un Programa de Entrenamiento de Habilidades Sociales Educativas con madres de preadolescentes con deficiencia auditiva. Dos madres constituyeron el Grupo Experimental (GE) y dos el Grupo Control (GC). Se buscó evaluar los efectos del Programa en el repertorio de comportamientos de las madres y de los hijos por medio de la Guía de Entrevista de Habilidades Sociales Educativas Parentales (GE-HSE-P) y de la *Child Behavior Checklist* (CBCL). Se utilizó el método *Jacobson Truax* para análisis de los datos del GE-HSE-P, obteniéndose cambios confiables en relación al incremento de las habilidades sociales educativas positivas y de las habilidades sociales infantiles para el GE. Los datos del CBCL indicaron problemas de comportamiento internalizantes en el GE y en un participante del GC y problemas de comportamiento externalizantes en un participante del GC en la pre y en la postintervención y en la evaluación *follow up* (para el GE). Se cree que el desarrollo de estos modelos de Programas pueda constituirse en un importante aliado de la fonoterapia.

**Palabras clave:** Pérdida de audición; pre adolescentes; entrenamiento de padres.

### Introduction

Parental social skills in the context of parent-child interaction are related to the set of social skills of parents applicable to their children's educational practice, whose function is to promote development and learning. Behavior problems, in turn, are characterized by behaviors that hinder the child access to new reinforcement contingencies, hindering the acquisition of relevant learning repertoires (Del Prette & Del Prette, 2011). Achenbach (2001) proposed to classify behavior problems into externalizing (agitation, aggressiveness, impulsiveness, defiant and antisocial characteristics) and internalizing (withdrawal, depression, anxiety and somatic complaints).

Thus, the repertoire of parental social skills has been the target of intervention programs with the aim of developing and/or improving parenting practices considered positive, since such practices are protective factors for the development of behavior problems in children (Bolsoni-Silva, Rodrigues, Abramides, Souza, & Loureiro, 2010; Bolsoni-Silva, & Silveira, 2018, Rodrigues, Carrara, Palamin, & Bolsoni-Silva, 2010). Among these programs, the Parental Social Skills Training (PSST) stands out, which has had positive effects on non-clinical populations or with specific complaints (Orti, Bolsoni-Silva, & Villa, 2015; Rocha, Del Prette, & Del Prette, 2013).

In this context, the application of PSST to parents of children and adolescents with hearing impairment (HI) has been discussed. Defined as total or partial hearing loss, HI can be congenital or acquired and classified into sensorineural, conductive or mixed and, depending on the degree, as mild, moderate, severe or profound (Pena, Lemos, & Alves, 2015). Studies in the area demonstrate that HI, by itself, can negatively interfere with parent-child interaction, as the social-emotional development of children with HI depends on communication strategies developed, mainly, by family members (Bolsoni-Silva et al., 2010; Guijo & Delgado-Pinheiro, 2016; Ketelaar, Wiefferink, Frijns, & Rieffe, 2017; Rodrigues et al., 2010). This issue, however, has been little addressed in other age groups, such as pre-adolescence and adolescence. Nevertheless, in a study about parenting styles with this population, a discrepancy was observed between the perception

of parents and that of adolescents with HI (Toshioka, Abramides, Prado, & Yamada, 2019), which may indicate the need for research covering this age group.

The advancement of technology and the complexity of interventions via cochlear implant devices (IC) or hearing aid (HA) requires specialized multi/interdisciplinary follow-up to which participants and their parents have access (Li, Bain, & Steinberg, 2004; Zugliani, Motti, & Castanho, 2007). In order to enhance the effective use of these devices and achieve the goals of hearing rehabilitation for its users, it is necessary to integrate various subjects (Otorhinolaryngology, Speech Therapy, Psychology, Neuropsychology, Pedagogy, Social Work, Engineering, Nanotechnology, Informatics, etc.). This study highlights the interface between Speech Therapy and the field of Social Skills, in the field of Psychology, regarding evidence indicating the potential benefit of educational programs, for this population, of promoting a positive parental repertoire integrated with the goals of speech therapy (Bolsoni-Silva et al., 2010).

In this sense, the present study aimed to check the effects of a PSST program with mothers of pre-adolescents with HI, to evaluate the performance of each of the participants according to indicators obtained in the pre- and post-intervention and in the follow-up assessment, identify possible reliable positive changes in the components of social skills and PSS in the group and individually, for both mothers and pre-adolescents, and analyze the implications of carrying out this intervention model for the chosen context.

## Method

### Participants

Four mothers of pre-adolescents with HI, two of whom constituted the experimental group (EG) in a convenience sample because they were available to attend the sessions at the same time as their child's auditory rehabilitation, and two were the control group (CG), which included mothers of individuals of an age group similar to that of the EG. Mothers of pre-adolescents who presented comorbidities identified in their medical records were excluded.

Mothers in the EG were called ME1 and ME2 and their children with HI, respectively, PE1 and PE2. Mothers in the CG, in turn, were called MC1 and MC2, as well as their children with DA, PC1 and PC2. Participants were aged between 40 and 55 years, being ME1 46 years old, ME2 55 years old, MC1 42 years old and MC2 40 years old. As for profession and education, ME1 was a Housewife, with Higher Education, ME2 was a Housewife, with no level of study (illiterate), MC1 was a University Teacher, with Higher Education and MC2 was Hairdresser, with High School. As for family income, ME1 and MC1 reported being above six minimum wages, ME2 reported two minimum wages and MC2 reported up to six minimum wages.

The pre-adolescents were two boys, attending the 5th (PE1) and 6th grade of elementary school (PC1), and two girls, attending the 6th (PC2) and 7th grade of elementary school (PE2). Age ranged between 10 and 12 years, PE1 12 years old, PE2 and PC2 11 years old and PC1 10 years old. Three of them had profound bilateral hearing loss and used cochlear implants (PE1, PE2 and PC2) and the other had moderate hearing loss and used hearing aid (PC1).

## **Instruments**

### ***Interview Script for Parental Social Skills (IS-PSS) (Bolsoni-Silva, Loureiro, & Marturano, 2014)***

This is a structured interview script that investigates parental educational social skills, their frequency of occurrence and antecedent and consequent variables. To correct the behavior frequency items, the answers “often” receive a score of 2, “sometimes” a score of 1 and “never/almost never” a score of 0. For correction of the content items, which correspond to categories “parental social skills”, “context”, “social skills”, “negative educational practices” and “behavior problems”, the tables in the instrument manual are consulted and, after coding, the categories are classified as clinical (C), non-clinical (NC) and borderline (L), and it is possible to establish which skills are impaired (classified as C or L). In Spearman’s test, the instrument obtained significant correlations for mothers (equal to 0.76, significant at 5%) and the alpha value obtained for validation was 0.846.

### **Child Behavior Checklist (CBCL) – Inventory of Childhood and Adolescence Behaviors for preschool and school children (Achenbach, 2001):**

In this study, the version for children and adolescents from 6 to 18 years of age was used, which investigates the frequency of behavioral problems, suggesting the diagnostic classification as normal (N), borderline (L) or clinical (C) for externalizing, internalizing behavior problems and their respective subtypes. This version contains 138 sentences, 118 of which are related to behavior problems and 20 to social skill. For its correction, the Software Assessment Data Manager (ADM) is used.

## **Procedures**

### **Ethical aspects**

Initially, the study was approved by the Ethics Committee for Research with Human Beings (opinion 918578 of 09/12/2014) of the institution where it was developed, in accordance with Resolution 466/12, and all participants in each group signed the informed consent form.

### **Data collection**

A quasi-experimental design was adopted, used in evaluations of programs that aim to cause some positive effect on a group of individuals, with the formation of two groups, EG and CG, and carried out pre- and post-test in both (Cozby, 2003). Mothers who showed interest in participating in the research were scheduled a time for pre-test evaluation and, in a second moment, individual feedback on the results was performed. The CG participants were contacted again at the end of the Program to respond, also individually, to the same instruments previously applied. Mothers in the EG attended the Intervention Program, which contained 10 sessions lasting approximately 1 hour and 30 minutes each, according to the adaptations for the group, and developed over a period of six months. Procedures were organized in stages and modules: Stage 1 – Pre-intervention and contract evaluation; Step 2 – Selection of target behaviors and establishment of

criteria for the sequence of the program; Step 3 – Feedback interview and final definition of target behaviors; Stage 4 – Intervention Program (Module 1 – Awareness; Module 2 – Everyday Social Skills; Module 3 – HSE); Step 5 – Post-intervention evaluation; Step 6 – Follow up evaluation four months, after the end of the Program.

The Intervention Program was adapted from the models of Bolsoni-Silva (2007) and Rocha, et al. (2013), given their relevance in terms of evidence-based practice. As general strategies, dialogued oral exposition, support material (Bolsoni-Silva, Marturano & Silveira, 2006; Weber, 2014), commercial video film scenes, behavioral rehearsal with alternatives to the exemplified situation, and scenarios (house, classroom, outdoor area) and characters from an educational tool called My World to assist in PSST related to everyday life (Prado & Abramides, 2018). This tool was created by professionals affiliated with the IDA Institute that helps hearing health professionals address the psychological and social challenges of hearing loss and apply patient-centered care methods.

## Data analysis

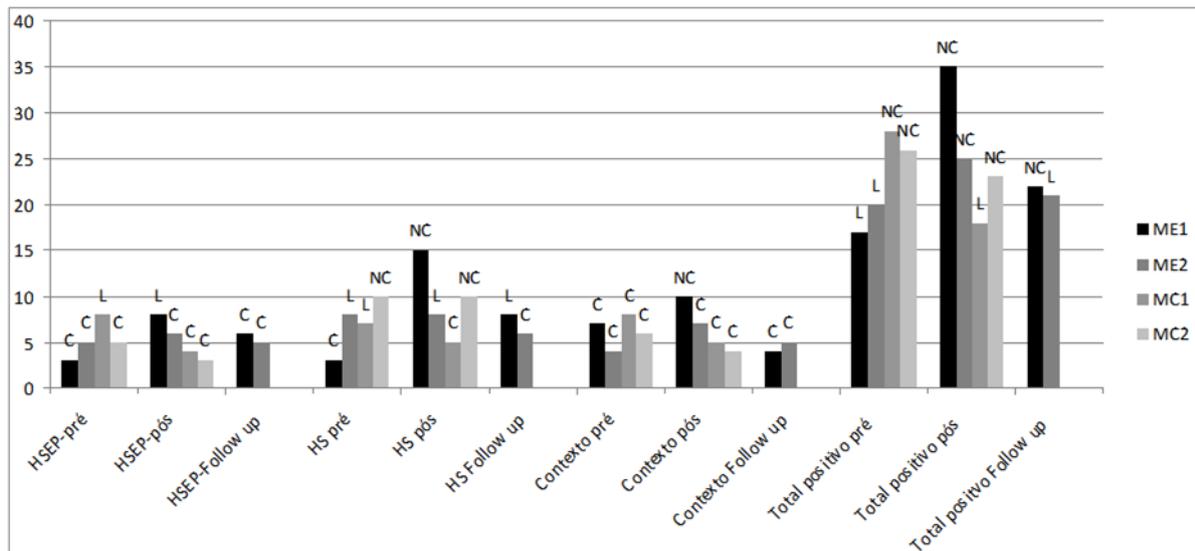
To assess the effects of the intervention in relation to the IS-PSS content data, the Jacobson Truax (JT) Method (Jacobson, & Truax, 1992) was used, which supports the analysis of reliable and clinically significant change in small samples, with which it is difficult to carry out randomized and experimental clinical studies. For the other measures, it was not possible to use this method, as the instruments (IS-PSS in relation to the analysis by frequency and the CBCL) do not include the necessary information for this analysis.

## Results

### IS-PSS – Analysis by content items

Figure 1 illustrates the measures related to the repertoire of positive behaviors, with both the EG and the CG showed a deficit in the pre-intervention in relation to parental social skills (HSE-P). In the post-intervention, there was an improvement in the ME1 repertoire, from clinical (C) to borderline (L), as well as in the ME2 repertoire, however, it remained in condition C. As for the CG, it was observed a decreasing repertoire for condition C. At follow-up, there was a decrease in the ME1 repertoire in relation to the post measurements, but this remained better than in the pre-intervention. ME2 pointed out the same value as post-intervention. Both remained in condition C.

Regarding the Social Skills (HS), which correspond to the pre-adolescents' repertoire from the perception of their mother, Figure 1 shows that in the pre-intervention measures C and L were obtained in the EG, and in the CG, measures L and NC (non-clinical). In post-intervention, PE1 changed from condition C to NC, while PE2 demonstrated the same measure. In CG, PC1 went to condition C while PC2 pointed to the same repertoire. In the follow up, PE1 and PE2 showed a decrease in relation to the post-intervention, but still with better performance than the measures before the Program.



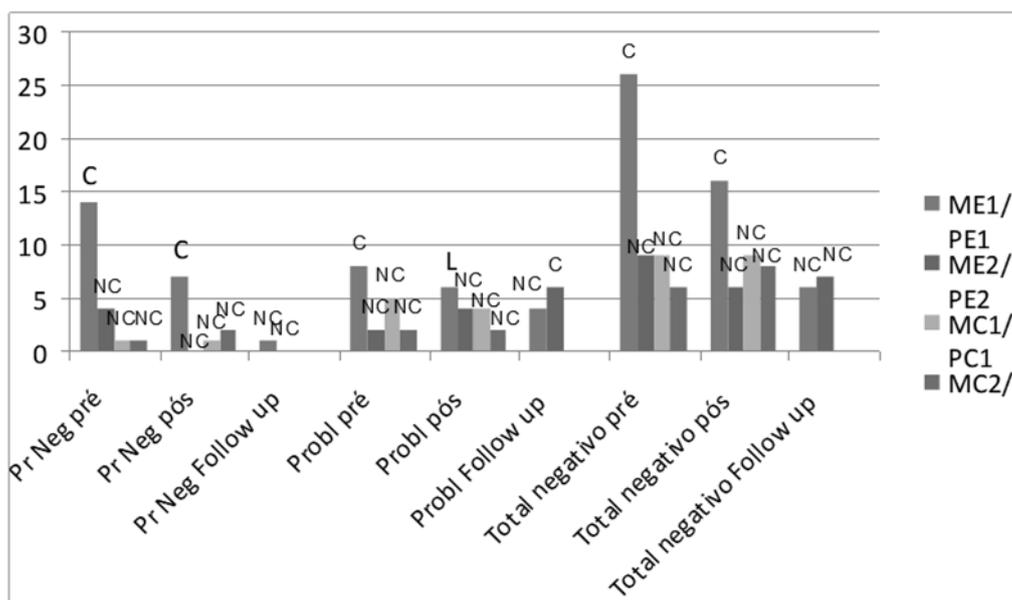
**Figure 1.** Positive Practices - Content Analysis (RE-HSE-P)

The same figure shows measures referring to contextual variables (context). In post-intervention, there was an improvement in ME1 measures (from condition C to NC) and ME2 remained in the same condition. In the CG, there was decreasing repertoire of mothers who remained in condition C. In the follow-up evaluation, condition C was observed in both, which presented worse performance both in relation to post-intervention and pre-intervention.

It is also observed in Figure 1 the measures referring to the Total Positive, indicating that the EG showed an improvement in their repertoire in post-intervention (condition L). In the CG, both participants showed a decrease in relation to the pre-intervention, with MC1 in the L condition and MC2, despite the decrease, remaining in the NC condition. In the follow up, comparing to the pre-intervention, both ME1 and ME2 showed worse performance, but remained in the same condition observed in the post-intervention and presented with a better repertoire than in the pre-intervention.

Figure 2, referring to the negative practices of mothers (PR NEG), shows that post-intervention ME1 showed a decrease in these practices, but remained in condition C and ME2 stopped presenting these behaviors. In the CG, MC1 maintained her repertoire and MC2 increased, but remained in the NC condition. Comparing with the follow-up evaluation, ME1 decreased even more the use of negative practices (from C to NC) and ME2 remained without behaviors in this category.

Another variable represented in Figure 2 was pre-adolescent behavior problems (PROBL). In the post-intervention, there was a decrease in the occurrence of these behaviors in relation to PE1, which changed to the L condition, and in PE2, there was an increase in their frequency, but the pre-adolescent remained in the NC condition, as well as the pre-adolescents in the CG. In the follow up, PE1 further reduced the behaviors of this category and moved to the NC condition, while PE2 entered the C condition.



**Figure 2.** Negative Practices - Content Analysis (IS-PSS)

In the same Figure, the category Total Negative was highlighted, and in the post-intervention, there was a decrease in the repertoire of EG participants, and in the CG, the increase in scores, however, they remained in the NC condition. In the follow-up, the mothers further reduced their repertoire, both classified in the NC condition.

With regard to the frequency of behaviors, both of mothers and children, it was observed that they occurred at low frequency (condition L or C), with no variation between the three evaluation moments.

### Analysis by JT Method of IS-PSS content items

Table 1 lists, in relation to the HSE-P, a reliable positive change between the pre- and post-intervention evaluation for ME1, no change in ME2, a reliable negative change in relation to MC1 and no change in MC2. Comparing the pre-, post-intervention and follow-up measures, both ME1 and ME2 indicated the absence of reliable change.

In HS, there was a reliable positive change between pre- and post-intervention only in PE1. In the follow-up, there was a reliable negative change in relation to the post-intervention in PE1 and no reliable change in PE2, but, compared to the pre-intervention, in the follow-up, PE1 showed a reliable positive change. PE2 remained with the same result.

There was no reliable change between pre- and post-intervention in all participants in the context measures. In the follow-up, there was a reliable negative change compared to post-intervention in ME1 and no change in ME2, and in relation to pre-intervention, there was no change in both.

**Table 1.** Reliable changes pointed out by the JT Method – IS-PSS - Content Analysis.

Variables	ME1/PE1		ME2/PE2		MC1/PC1		MC2/PC2	
	1	2	1	2	1	2	1	2
Reliable pre and post change - HSE-P	+						-	
Reliable post and follow up change - HSE-P								
Reliable pre and follow up change - HSE-P								
Reliable pre and post change - HS	+							
Reliable post and follow up change - HS	-							
Reliable pre and follow up change - HS	+							
Reliable pre and post change - context								
Reliable post and follow up change – context	-							
Reliable pre and follow up change - context								
Reliable pre and post change - Total Positive	+						-	
Reliable post and follow up change - Total Positive	-							
Reliable pre and follow up change - Total Positive								
Reliable pre and post change - PR NEG	+		+					
Reliable post and follow up change - PR NEG	+							
Reliable pre and follow up change - PR NEG	+		+					
Reliable pre and post change - PROBL								
Reliable post and follow up change - PROBL								
Reliable pre and follow up change - PROBL	+		-					
Reliable pre and post change - Total Negative	+							
Reliable post and follow up change - Total Negative	+							
Reliable pre and follow up change - Total Negative	+							

As for the Total Positive, there was a reliable positive change in ME1 and no change in ME2, and a reliable negative change in relation to MC1 and no reliable change in MC2 between pre- and post-intervention. In the follow-up, ME1 showed a reliable negative change and ME2 had no change, but when compared to the repertoire evaluated in the pre-intervention, both ME1 and ME2 showed no change.

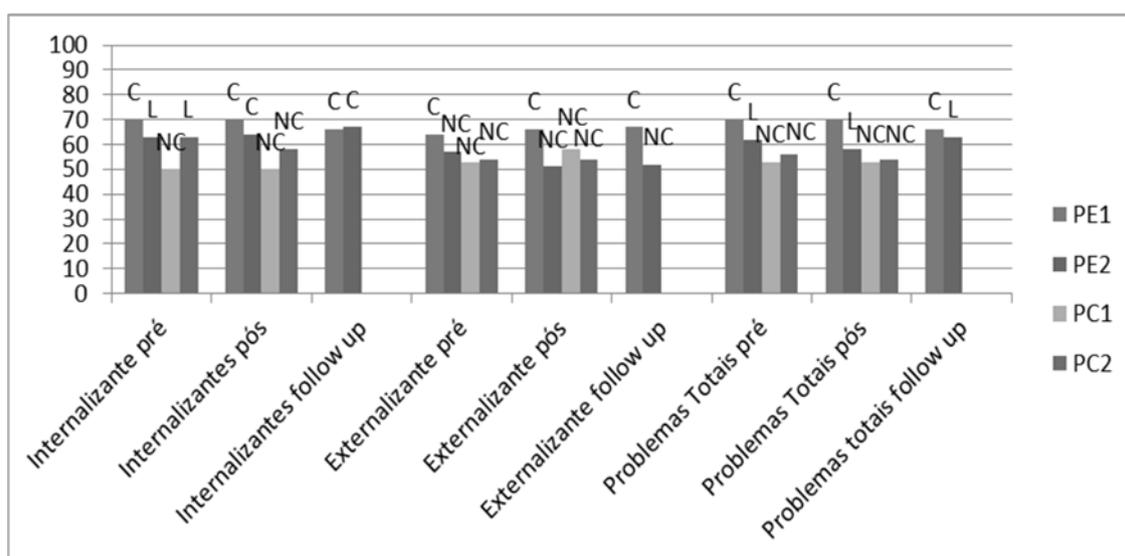
In the EG, there was a reliable positive change and, in the CG, there was no reliable change between the pre- and post-intervention regarding the PR NEG. In the follow-up, there was a reliable positive change in ME1, both in relation to pre- and post-intervention, and in ME2, there was a reliable positive change compared to pre-intervention and no reliable change to post-intervention.

For PROBL, between pre- and post-, in both groups, it was identified the absence of reliable change as well as in the comparisons between the post-intervention and follow-up evaluation. Between the pre- and follow-up evaluation, a reliable positive change was found in PE1 and a negative change in PE2. Regarding the Total Negative, in the comparisons between all evaluations, ME1 showed a reliable positive change and the others showed no reliable change.

## Childhood Behavior Checklist (CBCL)

Figure 3 shows the measures related to behavior problems, and in relation to internalizing problems, in the pre-intervention, PE1 showed condition C and PE2, condition L. In CG, PC1 was in the NC condition and PC2 in the L condition. In the post-intervention, both PE1 and PE2 characterized condition C, and PC1 and PC2, condition NC. In the follow-up evaluation, for the EG, condition C was indicated for PE1 and PE2.

As for externalizing behavior problems, Figure 3, in all pre-, post-intervention and follow-up measures, PE1 showed condition C and the other pre-adolescents, condition NC. In the evaluation of total problems, PE1 was in condition C, and PE2, in condition L, in the pre-intervention evaluation. The CG showed condition NC. In the post-intervention and follow-up, the same conditions were obtained.



**Figure 3.** Behavior problems – CBCL.

In the evaluation of skills, as can be seen in Figure 4, in the pre-intervention, PC1 evidenced condition C for the item activities and other pre-adolescents, condition NC. In the post-intervention evaluation, PC2 remained in the NC condition and the others, in the C condition. In the follow-up, PE1 and PE2 improved the repertoire, returning to the NC condition.

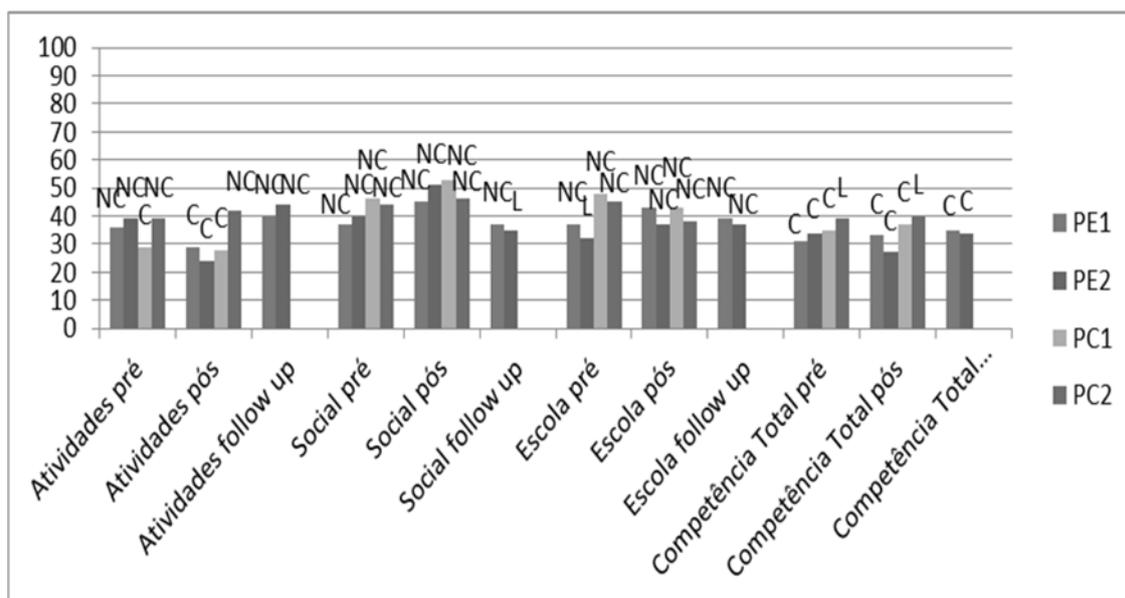


Figure 4. Skills – CBCL.

As for social interaction, Figure 4 illustrates that all pre-adolescents were in NC condition, both in the pre- and post-intervention evaluations. In the follow up, PE1 evidenced NC condition, and PE2, condition L. In the evaluation of skills related to the school, in the pre-intervention stage, PE2 was in condition L and other pre-adolescents, in condition NC. In the post-intervention and in the follow-up, with the EG, the NC condition was highlighted. In the evaluation of total skills, the same pattern of responses was observed in all stages, with PC2 in condition L, and the others, in condition NC.

## Discussion

The present study aimed to evaluate the effects of a semi-structured intervention program carried out with mothers of pre-adolescents with HI. For the development of the program, we sought, initially, to investigate the participants' parental HSE-P repertoire and the existence of behavior problems in pre-adolescents to enable the development and/or improvement of more outdated skills.

The literature has shown, when investigating the parenting practices of parents of individuals with HI, a deficit in the repertoire of social skills for both parents and children, in addition to pointing out the use of negative parenting practices and the occurrence of behavior problems (Bolsoni-Silva et al., 2010; Guijo & Delgado-Pinheiro, 2016; Ketelaar et al., 2017; Rodrigues et al., 2010). With regard to research participants, there was a loss in HSE, which were in condition C (ME1, ME2 and MC1) or L (MC2). The same could be observed in relation to the category of children social skills in the EG (both in condition C) and in the responses of MC1 and regarding the context variables (all in condition C).

With respect to negative maternal practices and children's behavior problems identified through the participants' responses to RE-HSE-P, ME1 and PE1 were in condition C, while the other participants and their children presented themselves with an adequate repertoire. In this sense, with the exception of ME1 and PE1, participants and pre-adolescents had better responses than the literature points out in relation to parents of children with HI. Nevertheless, when analyzing the data obtained through the CBCL, which

investigates the child's behavior problems more specifically, it is highlighted that in the EG and in responses of MC1 about PC1 there was evidence of the presence of internalizing behavior problems in level C or L, with PE1 also having externalizing problems in level C. Such data are in line with what is emphasized by studies by pointing out that children with HI may present behavioral problems more frequently than the normative population (Bolsoni-Silva et al., 2010; Guijo & Delgado-Pinheiro, 2016; Ketelaar et al., 2017; Rodrigues et al., 2010).

As highlighted by Orti, et al. (2015), internalizing behavior problems, characterized by isolation, somatic complaints, depression and anxiety, are often related to parenting issues, such as the use of negative parenting practices and the presence of psychopathology. In the studied population, this relationship can be inferred in ME1, since the pre-intervention evaluation pointed to the use of negative parenting practices in the clinical level. However, the same did not occur in relation to the other participants, who already presented low scores in the pre-intervention regarding negative parenting practices. As for the occurrence of externalizing behavior problems, which are characterized by irritability, disobedience and aggressiveness, among other behaviors, its relationship with the use of negative parenting practices, such as inconsistent discipline, has also been shown in relation to PE1, in the ME1 perception.

As for skills, evaluated through the CBCL, although the pre-adolescents presented behavioral problems in the pre-intervention, this does not seem to reflect on the skills. However, in relation to total skills, all pre-adolescents had deficient scores (C and L), which is more in line with the literature (Bolsoni-Silva, 2007; Orti, et al., 2015; Rocha, et al., 2013).

Thus, from the data collected in the pre-intervention evaluation, the intervention Program was carried out with the EG, focusing on the development of HSE-P and social skills in children and on the reduction of negative maternal parenting practices and the child's behavior problems. When analyzing the effects of the Program, it was possible to verify in the post-intervention evaluation and in the follow-up, an improvement in the repertoire of positive practices and a decrease in negative practices, even in relation to ME2, which already had a NC score in the pre-intervention. These changes, on the other hand, were not verified in the CG, which maintained a similar repertoire to the pre-intervention evaluation, and MC1 showed a reliable negative change in relation to parental social skills and total positive behaviors. Such data corroborate research in the area, pointing out a positive effect on the training of parental social skills (Bolsoni-Silva, 2007; Orti, et al., 2015; Rocha, et al., 2013).

On the other hand, regarding the behavior problems and skills of pre-adolescents measured through the CBCL, similar results were observed in the evaluations, different from those found in the reported studies (Bolsoni-Silva, 2007; Orti, et al., 2015; Rocha, et al., 2013). It is emphasized that, due to the multi-determined nature of behavior problems, in which negative parenting practices are only one of its risk factors, Herman, Borden, Reinke and Webster-Stratton (2011) and Rocha, et al. (2013) emphasize that the combination of interventions that involve other agents, such as the child and their teachers, provide more promising results, as they seek to reach other variables that can be related to the development and maintenance of behavior problems. However, in the present study, no intervention encompassed the school context. Thus, it is believed that it is important to carry out intervention studies with this population that cover other variables as a strategy to obtain better results in relation to the reduction of behavior problems.

To assess the effects of the intervention, the JT Method was applied in relation to the IS-PSS. In the EG, a higher number of reliable positive changes was observed in ME1/PE1 than in ME2/PE2. However, the discrepancy between the educational levels of the participants is noteworthy, and during the evaluations and even during the sessions, it was observed, by ME2, with no educational level, a very impaired verbal repertoire, when compared to ME1. This fact may have limited their responses to the instruments, resulting in more deficient scores. It is noteworthy that, however, during the sessions it was possible to notice a great engagement of ME2 in the activities. Noteworthy, for example, is her report at the end of the program that she would like to attend a Youth and Adult School to learn to read and be able to read the booklets used during the meetings. In the follow-up evaluation, the participant stated that she was already enrolled in a Youth and Adult School. Another issue to be emphasized is that, as she does not know how to read, the participant involved her family members a lot in the tasks, which, according to her, was widely accepted and mobilized changes in the posture of other family members as well. In this sense, Ribas-Prado, Calais and Cardoso (2016) emphasize the difficulty of including the population with low education and income in systematized studies that make use of standardized instruments for data collection. On the other hand, it raises the need for strategies to be created so that this population is not excluded from this type of research.

Still regarding the evaluation of the effects of the Program, it is observed that the follow-up evaluation presents some worse scores than those obtained soon after the end of the Program, such as those related to HSE-P, children's social skills and context variables. This result has also been put forward by researchers in the area, who emphasize the need to plan maintenance sessions after the end of the Program (Rocha, et al., 2013). However, in the present study, such a procedure was not possible, as the period from the post-intervention to the follow-up evaluation coincided with the vacation of the clinic where data were collected and, therefore, the mothers could not attend the local.

Thus, the development of studies with experimental and quasi-experimental designs in the field of social skills training has been considered by the literature as having great relevance due to the possibility of contributing to the demonstration of its effects in order to consider it an evidence-based psychological practice (Leonardi & Meyer, 2015). However, some authors have emphasized the difficulty in conducting research with this format (Bolsoni-Silva, et al., 2010; Rocha, et al., 2013). Despite having been developed with a very small sample, it is seen that, by adapting the Program to the characteristics of the population studied, it was possible that even in sessions lasting one hour and thirty minutes it was possible that activities could be developed in depth.

## **Final Considerations**

The present study sought to fill a gap in the literature by developing a semi-structured intervention program, based on programs recognized for their scientific evidence, with mothers of individuals with HI. The age group covered is also noteworthy, as specific studies with pre-adolescents are also rarely found. From the quasi-experimental design, two groups were formed, control and experimental, which is a need that is also raised by different researchers in the area.

The implementation of interventions that seek to improve the interaction of hearing parents with their child with HI is seen as promising, in order to favor the social-emotional condition of the child and/or adolescent with HI. However, some limitations were found in this research, signaling the need for further studies that can solve them. Thus, it is

essential to carry out programs with an increase in the number of participants. Another issue concerns the involvement of other agents in the program, such as teachers, speech-pathology and audiologist therapists and individuals with HI, which could contribute to the generalization of the skills worked on.

In this way, it is expected that this study can signal the conduction of further research that will remedy the difficulties encountered, helping to improve the interaction between the child/adolescent with HI and their families.

## References

- Achenbach T. M. (2001). *Manual for the Child Behavior Checklist/6-18 and 2001 profile*. Burlington: University of Vermont.
- Bolsoni-Silva, A.T. (2007). Intervenção em grupo para pais: descrição de procedimento. *Temas em Psicologia*. (Vol. 15, 2, p. 217-235). DOI: <http://pepsic.bvsalud.org/pdf/tp/v15n2/07.pdf>
- Bolsoni-Silva, A.T., Rodrigues, O.M.P.R., Abramides, D.V.M., Souza, L.S., & Loureiro, S.R. (2010). Práticas educativas parentais de crianças com deficiência auditiva e de linguagem. *Revista Brasileira de Educação Especial*, (Vol. 16, 2, p. 265-282). DOI: <https://doi.org/10.1590/S1413-65382010000200008>
- Bolsoni-Silva, A.T., Loureiro, S.R., & Marturano, E.M. (2014). RE-HSE-P-Roteiro de Entrevista de Habilidades Sociais Educativas Parentais. *Manual Técnico*. São Carlos: Suprema Gráfica e Editora.
- Bolsoni-Silva, A. T., Marturano, E.M., & Silveira, F.F. (2006). *Cartilha informativa. Orientação para pais e mães*. São Carlos: Suprema Editora.
- Bolsoni-Silva, A. T., & Silveira, F.F. (2018). Promove-Pais.Treinamento de Habilidades Sociais Educativas: guia teórico e prático. São Paulo: Hogrefe.
- Cozby, P.C. (2003). Delineamentos quase-experimentais, delineamentos com sujeito único e delineamentos de pesquisa sobre desenvolvimento. In *Métodos de pesquisa em ciências do comportamento*. (pp.237-256), São Paulo: Atlas.
- Del Prette, A., & Del Prette, Z.A.P. (orgs.) (2011) Habilidades sociais. Intervenções efetivas em grupo. São Paulo: Casa do Psicólogo.
- Guijo, L.M., & Delgado-Pinheiro, E.M.C. (2016). Caracterização da interação comunicativa entre pais de crianças e adolescentes deficientes auditivos que utilizam comunicação oral. *Revista CEFAC*.(Vol. 18, 5, p. 1061-1068). DOI: <http://dx.doi.org/10.1590/1982-0216201618523515>
- Herman, K.C., Borden, L.A., Reinke, W.M., & Webster-Stratton, C. (2011). The impact of the Incredible Years parent, child, and teacher training programs on children's co-occurring internalizing symptoms. *School Psychology Quarterly*.(Vol. 26, 3, p. 189-201). DOI: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4156159/>
- Ida Institute [Internet] (2014). [citado em 2014 Nov 20]. Disponível em: <http://idainstitute.com>.

- Jacobson, N.S., & Truax, P. (1992). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. In A.E., Kazdin. *Methodological issues and strategies in clinical research* (pp.521-238). Washington: Copyright.
- Ketelaar, L., Wiefferink, C.H., Frijns J.H.M., & Rieffe, C. (2017). Children with Cochlear Implants and Their Parents: Relations Between Parenting Style and Children's Social-Emotional Functioning. *Ear and Hearing*. (Vol. 38, 3, 321-333). DOI: <https://pubmed.ncbi.nlm.nih.gov/28002081/>
- Li, Y., Bain, L., & Steinberg, A.G. (2004). Parental decision making in considering cochlear implant technology for a deaf child. *International Journal of Pediatr. Otorhinolaryngology*. (Vol. 68, 8, p. 1027-1038). DOI: <https://www.sciencedirect.com/science/article/pii/S0165587604001028>
- Leonardi, J.L., & Meyer, S.B. (2015). Prática Baseada em Evidências em Psicologia e a História da Busca pelas Provas Empíricas da Eficácia das Psicoterapias. *Psicologia Ciência e Profissão*. (Vol. 34, 4, p. 1139-1156). DOI: <https://doi.org/10.1590/1982-3703001552014>
- Orti, N.P., Bolsoni-Silva, A.T., & Villa, M.B. (2015). Assessment of the Effects of a Parental Intervention with Mothers of Children with Internalizing Problems. *Advances in Research*. (Vol. 4, 5, p. 279-292). DOI: <http://hdl.handle.net/11449/135802>
- Pena, L.M., Lemos, S.M.A., & Alves, C.R.L. (2015). Auditory and language skills of children using hearing AIDS. *Brazilian Journal of Otorhinolaryngology*. (Vol. 81, 2, p. 148-157). DOI: <https://doi.org/10.1016/j.bjorl.2014.05.034>
- Prado, M.C.R., & Abramides, D.V.M. (2018). The use of everyday scenarios based on the educational tool "My World" in mothers of children and adolescents with hearing loss. *Audiology Communication Research*. (Vol. 23, p. 1-5). DOI: <https://doi.org/10.1590/2317-6431-2017-1939>
- Ribas-Prado, M.C., Calais, S.L., & Cardoso, H.F. (2016). Stress, depressão e qualidade de vida em beneficiários de programas de transferência de renda. *Interação em Psicologia*. (Vol. 20, 3, p. 330-340). DOI: <http://dx.doi.org/10.5380/psi.v20i3.35133>
- Rocha, M.M.R., Del Prette, Z.A.P., & Del Prette, A. (2013). Avaliação de um programa de habilidades sociais educativas para mães de crianças com TDAH. *Acta Comportamental: Revista Latina de Análisis de Comportamento*. (Vol. 21, 3, p. 359-375). DOI: <https://www.redalyc.org/pdf/2745/274528346006.pdf>
- Rodrigues, O.M.P.R., Carrara, M., Palamin, M.E.G., & Bolsoni-Silva, A.T. (2010). Práticas educativas parentais: a deficiência auditiva pode fazer a diferença? *Revista Pensando Famílias*. (Vol. 14, 1, p. 141-162). DOI: <http://hdl.handle.net/11449/133844>
- Toshioka, A.M., Abramides, D.V.M., Prado, M.C.R., & Yamada, M.O. (2019). Adolescentes com implante coclear e seus pais: caracterização dos estilos parentais. *EIA – Anais Científicos* (pp. 5024),

[https://www.audiologiabrasil.org.br/34eia/anais-34eia/trabalhos\\_select.php?id\\_artigo=5024&tt=SESS%C3%83O%20DE%20P%C3%94STERES](https://www.audiologiabrasil.org.br/34eia/anais-34eia/trabalhos_select.php?id_artigo=5024&tt=SESS%C3%83O%20DE%20P%C3%94STERES)

Weber, L. (2014). *Eduque com carinho*. Curitiba: Juruá, 5ª Edição, 16ª Tiragem.

Zugliani, A.P., Motti, F.G., & Castanho, R.M. (2007). O autoconceito do adolescente deficiente auditivo e sua relação com o uso do aparelho de amplificação sonora individual. *Revista Brasileira de Educação Especial*. (Vol. 13, 1, p. 95-110). DOI: <https://doi.org/10.1590/S1413-65382007000100007>

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