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### **DISTINGUISHING BETWEEN CONSEQUENCES OF NEGLECT AND POVERTY ON PROBLEM BEHAVIOR AMONG PRESCHOOL CHILDREN**

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# Distinguishing between Consequences of Neglect and Poverty on Problem Behavior among Preschool Children

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## Abstract

The aim of this study is to distinguish between consequences of neglect and poverty on problem behavior among preschool children. 72 children randomly chosen from the city of Granada (Andalucía, Spain), have been classified in three homogeneous groups according to demographic variables. Children in Group 1 (24 subjects) lived in slums (poverty) and suffered from neglect. Children in Group 2 lived in the same slums but did not suffer from neglect. Group 3 consisted of children from other neighborhoods of the city and did not suffer from neglect. Behavioral problems were evaluated with the Inventory for Client and Agency Planning (ICAP) behavioral problems scale. 50% of the subjects in Group 1 (neglected children) showed internalized behavior problems, and 0% in groups 2 and 3. Also 46% of Group 1 showed the externalized one, and 12.5% of Group 2 and 8% of Group 3. It is concluded that neglected pre-school children (1-5 years) showed many behavior problems, mainly internalized and also externalized. However, neither the non-neglected children from a socially deprived environment (poverty), nor the children from the control group showed behavior problems. As a result, we can relate the behavior problems to neglect and not to social status or sociocultural environment.

*Keywords:* neglect, poverty, externalizing behavior problems, internalizing.

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## Introduction

Child neglect is the most prevalent form of child maltreatment, which has been repeatedly identified in many studies (Slack et al., 2011). It is defined as the failure of a parent or other person with responsibility for the child to provide needed food, clothing, shelter, medical care, or supervision to the degree that the child's health, safety, and well-being are threatened with harm (Child Welfare Information Gateway, 2011; USDHHS, 2012). Child neglect is a worldwide problem widespread in families around the globe (Farah, Amara & Glyn, 2010). In the United States, about 7.4 out of every 1000 children in the general population experience neglect and as is shown in the most recent National Incidence Studies (NIS-4), child neglect constituting 61% of all identified child maltreatment victims (Sedlak et al., 2010). In Europe we find similar numbers (Stoltenborgh, Bakermans-Kranenburg, van Ijzendoorn & Alink, 2013; WHO, 2007). As Nikulina, Widom, & Czaja, (2011) or Sinha, Trocmé, Fallon, & MacLaurin, (2013) assert, although neglect is the most frequent subtype of maltreatment, the amount of attention devoted to it by public child welfare agencies and researchers is low.

Today it is broadly accepted that childhood victimization has significant consequences on physical and mental health across the lifespan (WHO, 2007). Despite the difficulty of the study of pure typologies, neglect has been associated with negative social, behavioral, and cognitive consequences (Spratt et al., 2012; Schumaker, 2012) in the short, medium and long term, especially with a trajectory of worsening problem behavior (Woodruff & Lee, 2011).

During childhood, slow development problems have been especially pointed out, and most behavioral areas are affected (e.g. Pino, Herruzo & Moya, 2000) with attention deficit and cognitive problems, communicative and expressive skills difficulties, lower academic achievement, altered emotional behavior, less social skills such as empathy and interpersonal relationships, and more difficulties in social interaction with distorted patterns of interaction with caregivers and with peers (Nikulina, et al., 2011; Wright, Masten & Narayan, 2013) and also, potentially causes child neurobiological deficits, impairment of executive functions, as well as elevation of the stress hormone cortisol (De Bellis, 2005).

According to numerous reports, children who grow up in neglectful or abusive homes suffer from impairments in their basic trust, self-esteem, and ability to form and maintain relationships, in the development of the attachment, and are prone to serious personality disorders and other psychopathology as adults. Their school achievement tends to be poor and their cognitive development delayed. They are at heightened risk for severe behavior problems, from non-compliance and temper tantrums through delinquency, violence, and other forms of anti-social behavior (LaPota, Donohue, Warren & Allen, 2011; Manly, Lynch, Oshri, Herzog & Wortel, 2013; Stith, et al., 2009; Wright, et al., 2013). In contrast to

physically abused children, neglected children have more serious cognitive deficits, socialization problems, and appear to exhibit more internalizing behaviors instead of externalizing behaviors (Chen, Propp, DeLara & Corvo, 2011; Dubowitz & Bennet, 2007; Hildyard & Wolfe, 2002).

Neglected children were found by both parents and teachers to display more internalizing behavior problems than comparison children (Fantuzzo, Weiss, Atkins, Meyers & Noone, 1998). Kotch et al (2008) found that children who have been abused or neglected are at high risk for exhibiting externalizing behavior problems, and can continue to aggressive and criminal behaviors (Gilbert et al., 2009) especially if it occur prior to age of 5 (Kosch et al., 2008). Woodruff & Lee (2012) found that children who had internalizing behavior problems and neglect, showed a worsening trajectory of behavior problems.

Mc Cord (1983) in a retrospective study established that 20% of neglected or abused children committed crimes when they became teenagers. Once they commit crimes in their adolescence, this conduct usually stayed until they became adults. Regarding the antisocial conduct, those who had been physically abused were involved in more crimes with aggression and assaults (Woodruff & Lee, 2012).

A factor highly related with neglect is poverty or low income. It has been widely acknowledged that poverty has a harmful impact on children's development (Rijlaarsdam et al., 2013). It has been identified as a high risk factor in many literature reviews (Guterman, 1997; Jonson-Reid, Drake & Zhou, 2013; Lee & George, 1999; Sedlack, et al. 2011; Woodruff & Lee, 2011). Children residing in economically deprived families more often manifest behavioral and emotional problems (Bradley & Corwyn, 2002). In addition, there is evidence that the harmful effects of poverty are already observable early in a child's life. There is ample evidence that the home environment and parental emotional well-being mediate the association between low family income and child emotional and behavioral problems (Bor, et al., 1997; Hearn, 2011; Kiernan & Huerta 2008; Lieberman, Chu, Van Horn & Harris, 2011; Linver, Brooks-Gunn & Kohen, 2002; McLeod & Shanahan 1993; NICHD 2005). As Sedlack et al. (2011) concluded, despite differences in study designs and samples, economic and parenting factors consistently predict neglect, from a global prospective study, although these aspects have been pointed out many times for decades. Thus, Wolock & Horowitz (1984) reported that neglectful families have below levels of socio-economic factors those abusive families. Polansky (1985) reported that neglectful mothers living in the same environments those non neglectful mothers had low levels of psychological interaction, and experience feelings of isolation and a lack of social support. Low socio-economic status has also been associated with higher externalizing behavior problems over time from kindergarten to adolescence (Landsford, et al., 2011). Thus, it has been found the relationship between poverty and neglect as an important risk factor for externalizing behavior problems in a long-

term. On the other hand, neglect has been associated with internalizing problems in a short-term and later with externalizing problems.

As neglect occurs in people of low social classes, Schumaker (2012) suggests that one must discriminate between poverty and neglect, because poverty alone cannot explain the study results. Chapple & Vasque (2010) assert that the ill effects of poverty on child and adolescent development clearly are confounded with child neglect. Therefore it is interesting to conduct a study to discriminate between the effects of poverty themselves and those linked to neglect. Thus, methodological aspects will be implemented in order to control and discriminate both variables.

The aim of this paper consists of evaluating behavior problems in a sample of physically neglected Spanish (Andalusian) children between 1-5 years old, comparing them with children from their same environment who do not suffer from neglect, as well as with a control group of children from the same city who live in non-socially deprived environments, in order to isolate the effect of poverty from neglect, controlling sex, age, number of brother and sisters, mother age, cultural level, and single-parent families. It is expected that the findings will show more behavioral problems among neglected children than in the low income non-neglected and the control.

## **Methodology**

### ***Participants***

Seventy two children from a city of Andalucía (Spain), divided in three different groups, have participated in this study: Group 1 (G1) physically neglected children who live in a socially deprived area (n=24), Group 2 (G2) non-physically neglected children who live in the same deprived area (n=24) and Group 3 (G3), non-physically neglected children from other non-socially deprived areas of the city (n=24). Members in G1 were chosen at random, among the 476 families with children between 0-6 years old in a high-risk situation detected by the Community Social Services in the three areas of the city, where most of the socially deprived population live. In these three areas the population is close to 30,000 inhabitants, characterized by a wide base pyramid of population, with an average of 4-5 people per family, 8% of those being gypsies. 80% of the houses are council houses, being an area of expansion of a city that is continually growing, with a high rate of movement from one house to the next, which produces a severe deterioration of the houses. This population comes mainly from villages and socially deprived areas, as well as from old areas of the city, forming a social blend, which does not have an associative character (information obtained from Community Social Services). The sample of 24 school aged children between 1-

5 years old was composed of 6 children between 1-2 years, 6 between 2-3 years, 6 between 3-4 years, and 6 between 4-5 years (average 2y 10m). The teachers of the 24 chosen children, as well as the social workers from the area where they lived, were interviewed in a way that they provided information to complete an abuse rate questionnaire made by Arrubarrena, De Paúl and Torres (1994), to check that the children were neglected rather than any other kind of maltreatment. In particular, this scale established 8 criteria or definitions, which the state of neglect was determined. These criteria were named as presence/absence (food, clothes, hygiene, health care, supervision, education, hygienic and security conditions at home). The average number of criteria among children of G1 was 4.7. The choice of the subjects in group 2 was randomly selected among children of the same area of the city, being matched up one by one in age and sex with children in G1. They were evaluated in the same way as G1, and showed an average number of neglect criteria of 0.2.

Both groups had the same cultural level (low), level of income (low and irregular), social status and age of the mother and number of brothers and sisters. It was verified with their social workers and teachers that there was not neglect or any other form of maltreatment, in the same way as we proceeded with G1. The 24 children in the third group (non-neglected, non- socially deprived sociocultural environment), were chosen at random among students from several municipal nursery schools, matching them up in age and sex (one by one) with G1. This group was matched up with the two previous ones in age and social status of the mother and in the number of brothers/sisters. However, regarding income level (medium) and cultural level (medium) G3 was not matched up with the other two, considering the objectives of this study. It was also verified that they did not suffer from physical neglect or any other form of maltreatment, using the same procedure as in the other two groups. Average number of neglect criteria was 0.16. Demographic characteristics for neglected and comparison groups are present in Table 1.

Table 1. *Demographic scores*

<i>Parametre</i>	<i>Grup 1</i>	<i>Grup 2</i>	<i>Grup 3</i>	<i>Statistical analysis</i>
Brother and sisters number	3.7	2.7	2.4	F=1.2 P>0.05
Number of subject with stabilized incomes	3	4	22	Chi2=0.167(1,N=48) P>0.05 ** (G1-G2)
Incomes per subject	60\$	72\$	390\$	F<1 ** (G1-G2)
Monoparental families number	4	2	2	Chi2=1.125(2,N=72)P>0.05
Mothers age	27.3	28.9	30.9	F=2.01 P>0.05
Cultural level	low=100%	low=96% middle=4%	low=0% middle or up = 100%	Chi2=2.087(1,N=48) P>0.05 ** (G1-G2)
Sex	50%/50%	50%/50%	50%/50%	
Children age	2y.10m.	2y. 10m	2 y. 10m.	

Note: *The analysis marked with \*\* is only between G1 and G2, because the other group was not matched to them.*

There is not statistical analysis for sex and age because the children were matched one to one across the three groups.

### ***Instruments***

Behavior problems have been evaluated using ICAP: Inventory for the Planning of Services and Individual Programming of Bruininks, Hill, Weatherman & Woodcock (1990), a structured instrument that allows normative scores to be obtained (adapted to the Spanish population by Montero, 1993) in adaptive behavior and behavior problems, offering other scores of a descriptive type. Behavior problems are evaluated in 8 areas individually evaluated, and are summarized in a general rating encompassing both the severity and frequency of problematic behaviors that can be further classified as internalized (self-injury, stereotyped behaviors and withdrawn or lack of attention), externalized (offensive and uncooperative behaviors) or antisocial (hetero-aggression, object destruction and disruptive conduct). This scale has shown an Inter-rater reliability of 0.83 and test-retest of 0.86. The criterion validity is 0.58 (correlation with another scales as Scales of Independent Behavior – Revised (SIB-R) (Bruininks, Woodcock, Weatherman & Hill, 1996).

### ***Design***

The aim of this research has been evaluated through an ex post facto prospective design with two independent variables:

*IV1*: Neglect (with two levels: Yes/No)

*IV2*: Sociocultural environment (with two levels: Deprived/ Non-deprived).

We made three groups:

G1: Neglected children who live in a socially deprived sociocultural environment.

G2: Non-neglected children who live in a socially deprived sociocultural environment.

G3: Non-neglected children who do not live in a socially deprived sociocultural context.

With these variables, we aim to discriminate neglect from the poverty/social class effects. The dependent variable was constituted by scores in the ICAP Behavior Problems Scale, although for the disclosure of the final results we will also use the percentage of subjects with behavior problems, classified by the ICAP.

**Procedure**

This study started with a selection of subjects who have been described in the participants section. The ICAP must be completed by a person who had had daily contact, or nearly daily contact, with the evaluated person, at least for three months. The evaluation was carried out by a trained psychologist, through interviews with the main teacher and the support teacher, with the aim of obtaining reliable data completed by parent’s reports if it is necessary. The agreement index was over 85% in each group (G1= 86%; G2 = 95%; G3 = 97.3%). The interviewer and the educators did not know the objectives of the investigation nor had they any information about the children being allocated in different groups for research.

**Results**

Figure 1 shows percentages of students with behavior problems in each group, measured by ICAP Behavior Problems Scale (We can see direct average scores in the ICAP Behavior Problems Scale in table 2).

Table 2. Direct scores obtained in groups with behavior problems (ICAP) and ANOVA

<u>Indices</u>	<u>G1</u>	<u>G2</u>	<u>G3</u>	<u>ANOVA(1)</u>	
Internalized	-10.6	1.7	0.9	F(2,60)=23.6	P=0.0000
Antisocial	-6.2	-1.1	0.3	F(2,60)=9.3	P=0.0003
Externalized	-8.9	-3.4	-0.8	F(2,60)=5.7	P=0.0054

Note (1) *Analysis of variance of the general comparison between groups. All of them are significant. Non-planned comparisons confirmed in all cases that significant differences existed between G1 and the other two groups (P=0’000 and P=0’000 respectively), which didn’t show significant differences between them (P>0’1 in all cases).*

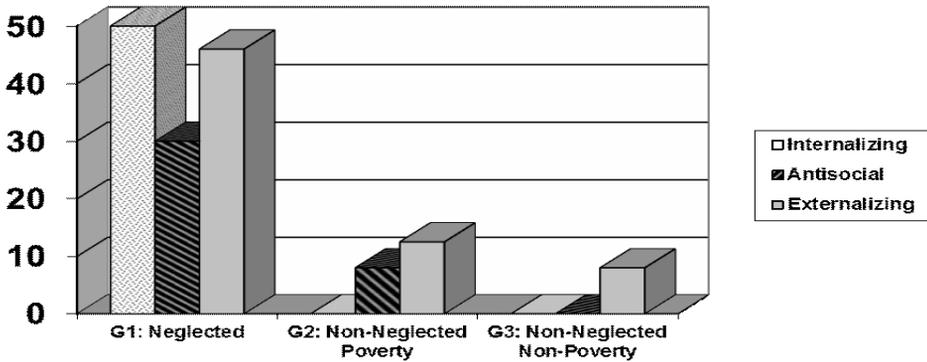


Figure 1. Percentage of subjects with behavior problems assessing with de ICAP. Group 1 was formed by neglected children, Group 2 by non-neglected children living in the same slums and Group 3 was formed by non-neglected children from other parts of the city.

As far as the internalized problems are concerned (that is, atypical and repetitive habits, withdrawn and lack of attention), 50% of physically neglected children have shown slight behavior problems. Nevertheless, it has to be highlighted that most of these children only presented problems of withdrawal and lack of attention. On the contrary, subjects in G2 and G3 do not show these behavior problems. Among those in G1, children between 4-5 years old were the ones with a higher internalized score of behavior problems. In the antisocial index, offensive social conduct and non-collaborative conducts are included. 30% of the children in G1 showed these kind of problems (in particular, non-collaborative conducts). Again, these scores contrast with the other two groups, which do not show signs of these problems. Finally, the externalized index includes aggressive conducts (hetero-aggressive), object destruction and disruptive ones, and in a smaller proportion, the hetero-aggressive ones, not showing any destructive conducts. 46% of children in G1 showed these problems. Among G1, the subgroup of children who are from 4 to 5 years old, are the ones with a higher externalized score of behavior problems.

These results were analyzed by ANOVA (direct scores). The general comparison between groups were significant ( $F[2,60]= 16.3; p= .0000$ ) and non-planned comparisons confirmed in all cases that differences existed between G1 and the other two groups ( $P= .000$  and  $P= .000$  respectively), which did not show differences between them ( $P > 0.1$  in all cases).

## Discussion

The aim of this paper was to assess behavior problems in a sample of neglected children between 1-5 years old, comparing them with non-neglected children from their same deprived environment, as well as with control children from the same city who live in non-socially deprived environments, in order to isolate the effect of poverty from neglect, when sex, age, number of brother and sisters, mother age, cultural level, and single-parent families were controlled. As expected, there were more behavioral problems among neglected children than in the low income non-neglected and the control groups while both the non-neglected children did not show significant differences.

In general, the results of this study confirm (first time in Spain) those obtained in others (Leventhal, 2003; Sedlack et al. 2011; Spratt et al., 2012; Woodruff & Lee, 2011) showing that neglected children presented more behavior problems than the control. In particular, in this sample of Spanish children between 1-5 years old, internalizing behavior problems are the most frequent problems followed by externalizing problems. Therefore, in a population that has previously been scarcely studied, there is a strong relationship between physical neglect and the appearance of behavior problems, withdrawal and lack of attention. In fact, these results confirm the general hypothesis (Erickson, Egeland & Pianta, 1989) that relates physical neglect with isolation and inadequate social interaction.

Also, the most interesting aspect of the present study is the comparison made between neglected children and other children of the same social status and sociocultural environment, as well as with other children from different environments and social status. The presence of behavioral problems among the G1, and the absence of those problems among the two other groups of population, answers the questions asked by, among others, Sedlack et al. (2011) or Azar (2002) that pointed out the necessity to dissociate effects resulting from maltreatment and those from the own characteristics of the population. The results of the present study show that the effects are related to abuse and neither to social status nor sociocultural environment.

The relevant fact of this data, from our point of view, is that it confirms the hypothesis supported by, among others, Azar (2002) which would explain that the behavior problems like developmental retardation and lack of attention are not caused by social status, but by the interactions within the family. Children in G2 lacked sufficient economic means as well as those in G1, and were surrounded by the same socially deprived environment. However, they did not show behavioral problems, probably because their families look after them, have the minimum resources to keep hygienic habits and sufficient child care; they have their emotional necessities cared for and the necessary attentions, etc., which makes them

equal to the rest of the children in the city as far as protection from the development of behavioral problems.

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