Dose-effect on the mothers and babies attending the Programa de Apoyo Psicológico P/Materno-Infantil

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Introduction

Psychological intervention programmes with the family put their efficacy and the achievement of their objectives to the test by evaluating the interventions as a whole (e.g., Shaw, Dishion, Supplee, Gardner & Arnsd, 2006) and progressively studying the “dose-effect” (Magill-Evans, Harrison, Benzies, Gierl & Kimak, 2007). Thus, they respond to the demand for “evidence-based” programmes, taking into account that financiers demand data and results on which to base their decisions, in an attempt to optimally administer limited resources (see, Nature, 2009). The key lies in being able to carry out programmes that are practical, useful, accessible, appropriate, evaluable, and suited to real life (Chen, 2010).

Research related to the family setting highlights the work with early childhood, due to the great importance of this phase of life for later development (Shonkoff & Phillips, 2000). Intervention with children and their caregivers from an early age prevents possible conflicts in the family setting and problems of anti-social behaviour (Robles & Romero, 201; Spath, Kavanagh & Dishion, 2002). Moreover, it promotes the child’s affective and cognitive development (Magill-Evans, et al., 2007). In this sense, James Heckman, Nobel Prize Winner for Economy, stated that to remedy any social disadvantages the intervention must focus on families and children before children go to school (Heckman & Masterov, 2007).

Parenting practices have a decisive influence on children’s development, especially in early childhood (Collins, Maccoby, Steinberg, Hetherington & Bornstein, 2000). Furthermore, the characteristics of the children themselves, such as temperament or age (for a review, see Ato, Galian & Huesca, 2007), must be kept in mind. For the children, the lack of an affectionate and positive relationship with their parents, insecure attachment, and receiving inadequate emotional and physical care increase their risk of developing emotional and behavioural problems (e.g., Dishion & Patterson, 2006; Spath, et al., 2002). Furthermore, there are studies that show the role of the primary caregiver in the cerebral development in the first stages of life, functioning as an “external brain” to regulate and stimulate the baby’s brain (Shanker, 2009).

In this context, inappropriate interaction between the parents and the baby can be an important risk indicator. Micro-social studies show that faced with complaints, protests or crying of the baby, mothers with high levels of psychological discomfort and other factors that affect parenting, react with less sensitive behaviours than mothers with low levels of these negative factors (Cerezo, Tenado & Pons-Salvador, 2006). Although these mothers show affective behaviours with their children, they are more intrusive and their reactions do not discriminate between the baby’s different behaviours or adapt to his/her developmental changes, main-
taining the same interaction style from 3 to 12 months (Cerezo, Pons-Salvador & Tenado, 2008). Moreover, mothers with more distress have greater probabilities of having children who manifest insecure attachment at 15 months.

The development of secure attachment in children is linked to their experience of sensitive maternal care (Bakermans-Kranenburg, van IJzendoorn & Juffer, 2003). However, this sensitivity can be affected by circumstances and stressors that influence family life, and that the mother can experience with more or less intensity. The social information processing model proposes that these mothers will have difficulties in one or several of the states of processing the signals coming from their children, which can reduce the quality of their performance in everyday child-rearing situations and associated conflicts (Caselles & Milner, 2000).

Therefore, in working with the parents it is important to consider factors that negatively affect parenting, given that parents with high levels of these factors are at a greater risk of performing inappropriately, or even in a physically or emotionally abusive way, with their children (Crouch & Milner, 2005; Pons-Salvador, Cerezo & Bernabé, 2005). Some of these factors can be highlighted, such as psychological distress or discomfort, unhappiness, anxiety and perceived problems with others or even with oneself. The study of these factors, collected in the Child Abuse Potential inventory (CAP; Milner, 1986, 2003), indicates that parents with high CAP when faced with ambiguous situations make more negative and global attributions for their children’s behaviour (Newman, 1997), and they assign more hostile intentions to them, showing higher levels of anger and aggressiveness (Springer, 2001).

According to the previous considerations, parenting practices, the interaction style between parents and children, and the factors that affect parenting constitute central aspects in the area of child-rearing and in the healthy development of babies. The Programa de Apoyo Psicológico P/Materno Infantil® (PAPMI, Cerezo, 1992) was designed and developed based on the foundations mentioned above. It has been operating in Valencia since the early 1990s and has developed a version that is operating in Dublin, Ireland since 2001, under the name “Parent-Child Psychological Support Programme” (PCPS; Cerezo, 2003). The PAPMI recognizes parents’ need for support in the first months of their baby’s life, given that child-rearing in this period can be considered a “life transition” stress event. Moreover, it takes into account the vulnerability of early childhood, along with the fact that very young children can be less visible in the community. The Programme’s objectives focus on promoting children’s well-being in the context of the parent-child relationship, strengthening their adaptive systems, and consolidating and fomenting more appropriate parenting practices in facing the conflicts that can emerge when raising a child.

The Programme is directed towards all parents of children under two years of age in a given geographical community. It has a universal nature, being designed for the whole population and not just, so-called, risk groups, based on the principles that there are no ‘good’ or ‘bad’ parents, only appropriate or risky parenting practices (Cerezo & Pons-Salvador, 1999; Wolfe & Krupka, 1991) and that universal programmes are more economically sustainable than those directed towards subgroups (Barnett, Brown, & Shore, 2004; Morrissey & Warner, 2007). Moreover, the programme is aligned with preventive strategies that consider risk processes to be cumulative; therefore, it is necessary to provide cumulative protection (e.g. Master & Wright, 1999; Yoshikawa, 1994).

The PAPMI consists of a series of 6 individual periodic visits that the parents make with their baby, from 3 months of age until 18 months. In these visits, psychologists specially trained in the Programme model and protocols evaluate the child’s development and his/her interaction with objects and with the primary caregiver. Based on this, a personalized intervention adapted to each family situation is carried out from the perspective of supporting the child-rearing process, in a context of ‘minding the minders’. Each visit lasts between 45 and 60 minutes. When considered necessary, the number of visits is increased, and they can be prolonged until the child is 24 months old if required. Likewise external referrals can be agreed if necessary. In following the child’s evolution, the parents become co-protagonists in the changes in their child. Protective factors are attended to, as well as factors of instability and risk, in a dynamic way, as they evolve over time (Tenedo, Pons-Salvador & Cerezo, 2009).

This Programme is subject to continuous evaluation mechanisms that have made it possible to validate its effects on the families (Cerezo, Dolz, Pons-Salvador & Cantero, 1999; Cerezo & Pons-Salvador, 1999; Cerezo, 2003; Pons-Salvador et al., 2005; Cerezo, Dasi & Ruiz, 2013). Specifically, the 2005 study showed that the level of participation in the Programme, in terms of visits, was a predictor factor of maintaining a low level of negative factors that affect parenting.

The purpose of the present study, in the series of studies cited to evaluate the PAPMI, is to examine the effect of the dose-effect of the Programme on the factors that negatively affect parenting and on the quality of the children’s attachment. At an exploratory level, an analysis is also conducted to find out whether there is a relationship between the factors that affect parenting (before and after the intervention) and the quality of the child’s attachment.

Based on previous results, three hypotheses were proposed. First, a significant decrease was expected from the pre-programme evaluation to the post-programme evaluation in the levels of stressors reported by the mothers, starting with the third intervention session. Second, a higher percentage of children with secure attachment was expected in children from groups of mothers who participate in three or more sessions than in the group with only two sessions. Third, the mothers of children with insecure attachment were expected to report higher levels of stressors than the
mothers of children with secure attachment on both the pre-
and post-programme evaluations.

Method

Participants

The sample is composed of 342 mothers and their ba-
bies. The mean age of the mothers was 31.29 years ([SD =
3.9]); 72% of the mothers have basic studies, 9.6% have mid-
level studies, and 18.4% have high-level studies. 61.98%
work outside the home. These families have between 1 and
3 children ([M = 1.43; SD = .59]). Only 1.46% of the fa-
had single-parents. Of the babies who participated in the
study, 52.6% were girls and 47.4% boys. All of them o-
tained an adequate level of development for their chronolo-
gical age, evaluated by means of the developmental diagnostic
tests by Gesell and Amatruda, revised by Knobloch and

Variables and Instruments

- **Factors that affect parenting.** This was operationalized in terms of the score obtained on a 77-item questionnaire, adapted from Milner (1986, 1990) and validated in the Spanish popula-
tion (De Paúl, Arrua Barrena & Milner, 1991; De Paúl & Rivero, 1992). The items are structured in 6 factors: distress or psychological discomfort, rigidity, unhappiness, and problems with the children, the family and other peo-
ple. These factors negatively affect parenting and are asso-
ciated with potential child abuse. The questionnaire (henceforth CAP) whose total score mainly rests on the first three factors, has adequate levels of internal consis-
tency, a Cronbach’s alpha of .97, and test-retest reliability
that ranges from .67 to .91. This questionnaire is sensitive
to change and effects of the intervention, showing predic-
tive validity in clinical and non-clinical populations (Chaf-

- **The quality of the affective bond.** For the operationalization of
this variable, the situational test called the “Strange Situation” was used. It takes about 20 minutes (see details in Ainsworth, Blehar, Waters, & Wall, 1978), and it deals with a series of episodes of separation and reunion between the primary caregiver and the child that activate a certain level of stress in the child. Trained coders assess the type of at-
tachment, focusing on the meeting episodes where the child’s behaviours of seeking proximity, maintenance, con-
tact resistance, and avoidance are rated. The attachment is
classified, following the guidelines of Ainsworth, et al.
1978, using three basic categories of attachment: secure
(type B), insecure anxious-avoidance (type A), and insecure
resistant or ambivalent (type C). Children with type B at-
tachment express positive or negative feelings openly to
the caregiver. They can regulate their feelings or ask for
help when they are overcome by them. They are calm in
the mother’s presence. Children with type A attachment
organize their behaviour maintaining superficial contact
with the caregiver and avoiding situations of conflict or
emotional intimacy. The separations do not seem to be
traumatic. They regulate sadness by focusing their atten-
tion on neutral objects or on the strange person. Children
with type C attachment exaggerate the expression of their
feelings in order to get their caregiver’s attention, making
the caregiver help the child to self-regulate and calm
him/herself down. There is an emotional dependence and
little interest in objects external to the relationship. The
mother’s approach usually includes avoidance movements.
The present study used the attachment variables with two
levels: secure (type B) and insecure (which includes types
A and C).

- **Levels of participation.** This was operationalized in terms of the number of sessions in the Programme. Each individual
visit/session lasted 45-60 minutes. The dyad’s visit con-
sisted of a few minutes of play, an evaluation of the child’s
developmental progress, and an interview in which results
were presented and difficulties and progress were ex-
plored. Motivational interviewing techniques (Miller &
Rollnick, 2002) were used as well as empowerment to re-
solve difficulties with child-rearing and the family situation
itself. Next, commitments for change were established for
the next visit. The dyad could have a maximum of 4 vis-
its/sessions before the one corresponding to the attach-
ment evaluation. The levels of participation considered in
this study consisted of 2, 3 or 4 visits/sessions.

Procedure

This research was carried out with the population that at-
tended the PAPMI and gave their consent to participate in
the study. The Programme is directed toward mothers and
fathers with their babies, but the majority of the visits were
attended only by mothers, so that the study was carried out
with mothers and babies. These mothers filled out, along
with other tests, the CAP questionnaire at two different
points in time: in the first visit, when the baby was approx-
imately 3 months old (pre-programme evaluation), and dur-
ing the penultimate visit, when the baby was 15 months old
(post-programme evaluation). The attachment was evaluated
using the “Strange Situation” test at 15 months. The evalua-
tors of the “Strange Situation” did not know how many vis-
its the family had attended.

Of a total of 520 families who attended the programme,
342 were selected who, in addition to giving their consent
for the study, had attended at least two visits and had com-
pleted the pre and post evaluations and the attachment test.

Using these criteria, families were selected that had not
dropped out from the Programme, given that they had at-
tended at least two visits, in addition to the session at 15
months. The families who attended 4 visits before the at-
tachment test completed the entire schedule, while those
that attended three or two visits missed at least one session.
These families, in all cases, contacted the program to explain that they could not attend on the scheduled day and rescheduled a new appointment. The number of families attending the Programme made it difficult to find an open slot near the cancelled appointment, so that the new date offered corresponded to the next session for the child’s age, thus skipping one of the visits.

**Design and analysis**

In order to find out whether the three groups of mothers were homogeneous, previous analyses were performed in which the socio-demographic variables were compared, using the Leven statistic, which makes it possible to find out the homogeneity of the variances. Tukey t and Kruskal-Wallis tests were also performed, depending on the type of variable.

The relationship between the level of participation and the factors that affect parenting (CAP), before and after the programme, were analysed by means of a repeated-measure ANOVA (CAP pre and CAP post), whose factor or independent variable was the number of visits to the programme. Given the study’s interest in comparing the groups by pairs, in all cases the Tukey test was applied, where the Bonferroni correction method was used with an adjusted alpha equal to .008. The relationship between participation and attachment was measured using the Pearson Chi-squared test.

To find out the relationship between the level of factors that affect parenting (CAP) and the attachment quality, the means obtained on the CAP by the two attachment groups were compared using the Tukey t test, with a Bonferroni alpha of .01. Following APA recommendations (2010), together with the p values of probability, the values of the effect size estimation obtained from the results of the partial Eta squared (Frias-Navarro & Pascual, 2000) were reported and interpreted. The programme used was SPSS 17.

**Results**

**Analyses of socio-demographic aspects**

The analyses showed similar socio-demographic profiles in the three groups of mothers in terms of age, the mothers’ educational level, the percentage of mothers who work, and the percentage of single-parent families. The only difference was found in the number of children, so that the mothers who made three visits to the Programme had a significantly higher number of children than the other two groups of mothers, while the differences between the 2 and 4 visit groups was not significant. Table 1 shows the means or percentages obtained on each of the socio-demographic variables with the results of the comparison analyses. The results of the homogeneity of variances analyses, using the Leven statistic, also showed that the three groups of mothers were homogenous in terms of age (L(2, 339) = 1.39, p = .56), but not in the number of children (L(2, 339) = 4.18, p = .01).

**Descriptive analyses**

Table 2 shows the mean scores on the CAP obtained by the 342 mothers at the two evaluation points (CAP pre and post), distributed by level of participation in the programme (two, three or four visits) and by the type of attachment the child shown at 15 months (secure vs. insecure).
Table 2. Means obtained by the groups of mothers on the pre and post CAP, established according to the number of visits and based on the quality of the child’s attachment at 15 months old.

<table>
<thead>
<tr>
<th>N</th>
<th>CAP pre</th>
<th>CAP post</th>
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<tbody>
<tr>
<td></td>
<td>SECURE</td>
<td>INSECURE</td>
</tr>
<tr>
<td>2 visits</td>
<td>114.66</td>
<td>111.74</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>77.42</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>41</td>
</tr>
<tr>
<td>3 visits</td>
<td>81.40</td>
<td>78.29</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>52.52</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>86</td>
</tr>
<tr>
<td>4 visits</td>
<td>79.32</td>
<td>77.59</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>53.59</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>215</td>
</tr>
<tr>
<td>Total</td>
<td>84.08</td>
<td>81.05</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>57.63</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>342</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N</th>
<th>CAP pre</th>
<th>CAP post</th>
</tr>
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<tbody>
<tr>
<td></td>
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<td></td>
<td>N</td>
<td>342</td>
</tr>
</tbody>
</table>

SD: standard deviation, N: sample size.

Relationship between level of participation and level of factors that affect parenting (CAP) before and after the Programme

Table 3 shows the results of the repeated-measure ANOVA, specifying the F values for the within- and between-subjects contrasts. The table also includes the results of the Tukey t tests.

<table>
<thead>
<tr>
<th>Factor</th>
<th>F</th>
<th>p</th>
<th>Pot. η²</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>WITHIN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAP pre</td>
<td>1.42</td>
<td>.19</td>
<td>.30</td>
<td>.008</td>
<td></td>
</tr>
<tr>
<td>2 visits vs 3 visits</td>
<td>.97</td>
<td>.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 visits vs 4 visits</td>
<td>1.99</td>
<td>.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 visits vs 4 visits</td>
<td>.76</td>
<td>.44</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAP post</td>
<td>2.91</td>
<td>.001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 visits vs 3 visits</td>
<td>3.85</td>
<td>.001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 visits vs 4 visits</td>
<td>.99</td>
<td>.32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 visits vs 4 visits</td>
<td>10.26</td>
<td>.000</td>
<td>.98</td>
<td>.057</td>
<td></td>
</tr>
<tr>
<td>BETWEEN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAPpre2v vs CAPpost2v</td>
<td>.22</td>
<td>.83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAPpre3v vs CAPpost3v</td>
<td>3.26</td>
<td>.001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAPpre4v vs CAPpost4v</td>
<td>4.40</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pwr.: Statistical power. η²: Partial Eta squared. (*) p<.05, (**) p<.008.

The within-subjects contrast revealed that the three groups of mothers, established according to the number of visits, did not show significant differences in their CAP scores (F(2,339) = 1.42, p = .19). The partial Eta squared (η² = .008) was very low. Therefore, in order to avoid a possible type II error, the analyses were conducted by pairs, with a Bonferroni adjusted alpha equal to .008. The results of the Tukey t tests confirmed that before participating in the Programme, the sample of mothers was fairly homogenous on the factors that negatively affect parenting, given that there were no significant differences in the CAP scores between the groups. However, in the post-programme evaluation, significant differences were found on the CAP scores, so that the mothers who had 2 visits obtained a higher score than the mothers who had 3 visits (t = 2.91, p = .006) and those who had 4 visits (t = 3.85, p = .001). No significant differences were found between those who attended 3 visits and those who attended 4.

The between-subjects comparisons showed that the differences found between the scores on the CAP obtained by the mothers in the pre evaluation and those obtained in the post evaluation were significant when taking into account the number of visits (F(2,339) = 10.26, p < .000, η² = .05). Post-hoc comparisons made it possible to see that the significant differences occurred when the family had attended 4 visits (t = 4.40, p = .001) and when they had attended 3 visits (t = 3.26, p = .001), but not after 2 visits. These results indicated that in order to produce significant changes in the CAP, with a decline from the pre to the post evaluation, the family had to make at least 3 visits to the Programme.

Relationship between level of participation and the child's attachment quality

Figure 1 presents the proportion of children who show secure attachment and insecure attachment, separated by the number of visits the family made to the Programme. It was observed that the proportion of children with secure attachment was greater when the family made 4 visits to the programme, followed by 3 visits, and finally 2. This relationship between the number of visits and attachment was significant χ²(2, N = 342) = 10.06, p = .007.

Relationship between the level of factors that affect parenting (CAP) before and after the Programme and the child's attachment quality

This section includes two types of comparisons. The first comparison showed that the CAP scores of mothers of children with insecure attachment were significantly higher than those of mothers of children with secure attachment, both...
on the pre evaluation (CAP-pre INSECURE vs CAP-pre SECURE, \( t = 3.39, p = .001 \)) and on the post evaluation (CAP-post INSECURE vs CAP-post SECURE, \( t = 3.19, p = .002 \)).

The second comparison showed that the mothers of children with secure attachment had a significantly higher pre CAP score than their post CAP score (CAP-pre SECURE vs CAP-post SECURE, \( t = 3.24, p = .001 \)). In the case of mothers of children with insecure attachment, there were no significant differences between the pre and post CAP scores (CAP-pre INSECURE vs CAP-post INSECURE, \( t = 1.22, p = .23 \)).

In other words, the children who showed secure attachment had mothers whose scores on the CAP declined from the pre to post evaluation, while this decline did not occur in the mothers of children with insecure attachment.

Discussion

The present study was carried out to determine the effect of the PAPMI intervention dose on mothers and their babies. The results confirm the hypotheses proposed, indicating that the Programme has positive effects starting with the third intervention session with the family. The Programme supports the mothers in their child-rearing task, teaching them to improve their ability to recognize and respond to their child’s behavioral signals. All of this was carried out taking into account the specific characteristics and problems of each family and, specifically, focusing on those factors that can negatively affect parenting and that are evaluated by the CAP questionnaire by Milner (1986). The results show that in order for significant changes to occur in the CAP between the pre and post evaluations, the family has to attend at least three visits. These results coincide with those obtained in a previous study where mothers with clinical scores on the CAP (above 166) were compared to mothers with low scores (Pons-Salvador, et al., 2005). The novelty of the present study is that the comparisons were made with all the mothers, confirming that changes occurred in both mothers with more stressors and those with fewer. It should be pointed out that the mothers in the pre evaluation of this study make up a fairly homogenous group on the CAP scores, as only 9.35% of them (32 of the 342) obtained a clinical score, approaching the 10% that other studies have found in the normal population (Milner, 1986).

In addition, the effect of the Programme’s intervention on the children was evaluated according to the type of attachment shown at the age of 15 months. The development of secure attachment, which can act as a basic protective system, is considered an indicator of a satisfactory interaction throughout the first year of life (Belsky, Fish & Isabella, 1991; Cerezo, Trenado & Pons-Salvador, 2012). According to various studies carried out in the United States and Europe, in the non-clinical population the percentage of children with secure attachment is 67%, while 33% have insecure attachment (Brisen, 2002 for a review). This proportion is quite similar to the percentage obtained in the present study for the children who attended the Programme with their parents twice, which indicates that our initial sample had similar results to the normal population. However, when the parents attended the Programme 3 times, the proportion of insecure attachment declined to 21.6%, and when they attended 4 times it declined to 14.6%. These differences, compared to those who attended twice, are significant, showing that from the third intervention session, the Programme has an effect on the probability of developing secure attachment, a probability that increases with the fourth visit.

These results indicate that working with parents on aspects related to interaction, as occurs in the Programme (in each intervention session, there is individual work with the parents to support them in their capacity to recognize and respond appropriately to their baby’s signals), has positive effects on the development of secure attachment, starting with the third intervention session.

We observe, therefore, that before the effects of the Programme intervention can be noted, both the level of the sample of mothers (in their level of stressors) and the level of the children (in the attachment they develop) are close to the normal population, with significant changes observed after three intervention sessions. These results support the idea that a Programme of these characteristics should be directed to the entire population, not only because it aids in the detection of high-risk cases, which require more specific work, but also because it provides support for all families, making it possible to work on the prevention of child maltreatment and the promotion of appropriate parenting practices (Cerezo & Pons-Salvador, 1999; Wolfe & Krupka, 1991). Thus, the importance of establishing universal programmes directed towards early childhood is confirmed, as they are politically and economically more sustainable (Bar-

These arguments do not rule out the need to work more specifically with risk groups. In fact, in our study, even though the Programme’s intervention positively affected a high percentage of children, some of them required a follow-up and/or further work. For example, 14% (30 cases) developed insecure attachment even after attending 4 intervention sessions, and they coincided with mothers who maintained a high CAP level after the Programme. The literature indicates that some circumstances can maintain stressors in the mother’s life, and they can reduce her capacity to put herself in her child’s place, leading to an inadequate interpretation of the child’s signals (Newman, 1997; Springer, 2001). These cases require a more individualized study that takes into account specific characteristics of these families, a topic that exceeds the objectives of the present study and could form part of a future investigation. It should be pointed out that, after finishing the Programme, those families in which the parents maintain a high level of factors that negatively affect parenting and/or the children have developed insecure attachment are referred to the corresponding community services for follow-up and/or intervention (Trenado et al., 2009).

One of the most important limitations of the study is that the groups are not random and the sample size of the three groups is different. Therefore, we focused on evaluating the homogeneity between the groups, observing that they have similar socio-demographic aspects, and the mothers’ total scores on the factors that affect parenting before the treatment are also similar. Based on this equivalence between the groups, the study was considered to be justified. Furthermore, we selected only those cases that could not be considered drop outs; in fact, the mothers included in the study who missed a visit called to arrange a new one. However, we are aware that differences found between the group with 2 visits and the groups with 3 and 4 visits could also be due to other uncontrolled variables.

Keeping in mind that other studies already support the efficacy of the PAPMI, and that in the present study what is evaluated is the dose-effect, we believe that an important conclusion of this study is that the Programme can reduce the number of visits without reducing its efficacy, as there were clearly no differences between three and four visits. Therefore, efforts can be made to ensure that the users of the Programme attend at least three visits before the post evaluation. In that way, babies and their parents can benefit from a Programme of these characteristics with a lower cost.

References


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