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Runing head: FROM ASSESSING NEEDS

From assessing needs to designing and evaluating programs: case study of a family
support program in Portugal

Abstract

In the last years, researchers have been emphasizing the importance of promoting needs-led, context-specific, user-centered services in the context of child protection. However, policy-makers and service planners around the world largely depend on US-based research evidence of what is effective in the topic of family support. This work presents, in two studies, the process of design and evaluation of a targeted family support intervention that was developed and implemented in Portugal.

Following the Common Language Approach to needs assessment (Dartington Social Research Unit, 2001), in study 1 we screened 100 children and their families attending a generalist child care service for risk and protective factors. Four different clusters of needs were identified. One cluster was selected as target-group for the design of a service to match their needs. Results indicated that families in this cluster had socioeconomical disadvantages, a challenging family environment and inadequate parenting practices. Children were showing signs of problematic social behaviors.

In study 2 we describe the theoretical process model and the logic model for the intervention, and experimentally evaluate the program's efficacy. Results from pre-post assessments indicate improvements in the intervention group (N = 20) in several areas of parental empowerment and family relations, comparing with the control group (N = 20).

This approach to need-service matching seems to be a viable pathway to design needs-led, context-specific, user-centered services, and to assess their efficacy, thereby informing policy makers and service planners.

Keywords: Needs assessment, Family support, Need-service matching, Program design, Program evaluation.

FROM ASSESSING NEEDS TO DESIGNING AND EVALUATING PROGRAMS:
CASE STUDY OF A FAMILY SUPPORT PROGRAM IN PORTUGAL

Introduction

A number of studies and meta-analytic reviews have shown that family support programs – interventions targeting parents and/or caregivers and children aimed at lowering risk and promoting protection factors in child development – have positive impacts on factors such as the overall degree of family functioning, parental disposition, children’s well-being and children’s cognitive, behavioural, and socioemotional development (e.g. Charles, Bywater, & Edwards, 2011; Dagenais, Bégin, Bouchard, & Fortin, 2004; Dretzke, et al., 2009; Lundahl, Nimer, & Parsons, 2006; Whittaker & Cowley, 2012). Despite these positive results, a number of authors have pointed out that the vast majority of programs implemented and robustly assessed (i.e. following an experimental design) are developed in specific contexts, above all in North America (e.g. Donelan-McCall, Eckenrode, & Olds, 2009; McGoldrick & Giordano, 1996). This means that the knowledge of what works (and what does not) is mostly limited to specific cultural contexts, remaining uncertainty about the implications that these interventions may have in contexts with a different historical, cultural and social background (Moran, Ghate, & Van der Mewre, 2004). For this reason, there has been a call for research initiatives that invest in more methodologically rigorous evaluations of parenting support interventions in different contexts, involving randomized control groups and pre/post intervention assessments (Moran et al., 2004). The purpose of this paper is to describe the process of designing and evaluating a targeted family support intervention that was developed and implemented in Lisbon, Portugal.

At the start of the last decade, the level of protection and care for children in Portugal was ranked one of the worst in the industrialized world (UNICEF, 2003). After nearly a decade, these insufficiencies can still be seen in a child protection system lacking preventive care, with widespread abuse and the excessive use of overly-prolonged, undifferentiated institutional care without family integration (ISS, 2009).

This backdrop justifies a change in broad and wide-ranging services towards specific services based on users' needs, called needs-led or community-based services (Taylor, 2005). Moreover, with the mounting pressure to cut social services in the wake of successive reductions to public spending, evaluating needs and designing programs may become a tool to justify and plan interventions that address targeted unmet needs. To achieve these kinds of changes, approaches based on controlled needs evaluation procedures are recommended, since they ensure that services are determined by the needs of their target users (user-centred), and not merely by their nature (service-centred) (Petersen & Alexander, 2001). However, to our knowledge, no studies have been published demonstrating this transition process from broad to needs-led services, and its effect on target groups.

Also, given the lack of research available that specifically addresses the Portuguese service provision scene, and the dependency Portuguese policy-makers and service planners have on US-based research evidence on what is effective in this area, it is important to provide robust evaluations of how effectively the interventions meet the identified needs. As Moran and colleagues note, "without research that at least incorporates a robust comparative element where those receiving a service are evaluated against those who have not received the same or a similar service, all service investment is leap of faith" (2004, p. 124).

This work presents, in two studies, the process of designing and evaluating a targeted needs-led intervention to provide a coordinated response at several levels: the assessment of unmet needs, the design of user-centred services and the experimental evaluation of the intervention's efficacy. This is the first time the needs of a population of a general Portuguese children's service have been systematically assessed, and a resulting targeted intervention designed and experimentally evaluated. In study 1, we: 1) assess the needs of the children (and families) of a community children centre; 2) identify different clusters of needs; and 3) define the target population. In study 2, we: 4) build a theoretical process model for the intervention; 5) design and describe the logic model; and 6) evaluate client outcomes.

Study 1 – Needs Assessment

With a view to improving the effectiveness of child protection services, the evaluation of needs requires the use of a systematic approach with a conceptual map or system for gathering and analysing information on the child and his or her family, and that effectively discriminates between different types and levels of needs (Department of Health, 2000). A number of conceptual and methodological approaches have been developed to assess needs, specifically in the area of protection services for children and youth at risk, which also allow to plan, implement, and evaluate services based on the needs assessment (e.g. Department of Health, 1995; 2002).

One methodology proposed in the literature is the Common Language Approach (CLA; Dartington Social Research Unit, 2001), which uses a collection of tools to assess the needs of children and how institutions address them, in order to understand which needs still need to be satisfied and designing targeted services to do so (Taylor, 2005). The rationale for this approach is the idea that it is unreasonable to expect services to have uniform effects between families with different characteristics and

needs, and that the optimal intensity and breadth of services depend on the case's characteristics (Littell, 1997). Study 1 embodies this principle, and thus has the following goals:

- (a) Screen children and families for risk and protective factors in several areas related to their development and family functioning;
- (b) Identify groups (sub-samples) with similar needs patterns;
- (c) Select the intervention's target group to design a program that addresses the specific needs of this sub-sample of children.

Method

Participants

The sample group was comprised of the last 100 children admitted to a community children centre, including kindergarten and elementary school (first cycle). The sample group was equal in terms of gender (50% male and 50% female). Most of the children (64%) were in preschool (with ages ranging from 3 to 5 years), and 36% were in elementary school (with ages ranging from 6 to 11 years). With regard to ethnicity, 54% were Portuguese and 46% were African in origin. Fifty percent of the families were single-parent, 28% were nuclear, 6% were extended, 3% were reconstituted and for the remaining 13% there was no information. With regard to the parents' professional status, 32% were both employed, nearly half of the sample group (49.6%) had one unemployed parent, 14.6% had both parents unemployed and, finally, the status was unknown in the remaining 4.8%.

Instrument

Aggregating Data (Little, Axford, & Morpeth, 2002). This practice tool enables planners to collect information on a sample of cases to give a reliable aggregate picture of needs in an authority or agency. Using 312 items, it collects indicators on the child and respective family in five areas: housing situation (e.g. “family has economic problems”); social and family relationships (e.g. “child recently abused”); social and antisocial behaviour (e.g. “aggressive behaviour at school”); health (e.g. “physical disability”); and education and employment (e.g. “special education needs”). Most of these indicators are assessed in terms of their presence or absence (dichotomous scale: yes/no), although some are assessed in terms of their order or intensity (e.g. relationship with the mother: good, average or normal, weak or poor, lack of contact, deceased). It also allows the information on the services involved in each case and respective results to be systematized. By analysing the variables through cross-tab exercises, discriminant analysis or cluster analysis, it can establish the need group to which each child in the sample group belongs. A need group indicates a common pattern of needs among the children it includes.

Procedure

Since the instrument was originally in English, it was translated into Portuguese, resulting in the creation of two separate versions, which were crossed-referenced and back-translated. Information for each case was collected jointly by three professionals (educator/teacher, social worker and psychologist) working with the children directly. Data was collected by completing a qualitative form (Form B, with the “Matching Needs and Services” collection of practice tools), with open-ended responses, and with the five “Aggregate Data” areas (Little et al., 2002). After this, the information in the forms was coded for the Aggregate Data. The evaluators received training on the

principles, aims, content and methodology of the approach. Data gathering and coding were pre-tested during this training.

Results

To identify similar profiles of needs, a set of variables (risk and protective factors) was initially chosen based on the sample group's frequency distribution. An analysis of the co-relational matrix further reduced the number of key variables to 30, for the purpose of minimizing redundant information. First, a hierarchical cluster analysis was done, using the 30 key variables as input variables. The criteria of "Ward" and "Furthest Neighbour" were used as aggregation criteria, suggesting the presence of four clusters. Subsequently, this solution of four clusters was optimized through a non-hierarchical cluster analysis. The variables that figured into this analysis were cross-referenced with the four clusters identified, to test their differentiation between the groups, using a chi-square test (table 1).

-TABLE1-

Significant differences were found between the groups in all of the areas evaluated. In the housing situation, groups two and four have more nuclear families (80% and 60%, respectively; $p < .001$). Group two stood out for having no cases of overcrowding at home (0%, $p < .001$), fewer economic problems (50%, $p < .001$) and fewer families living in neighbourhoods unsuitable for raising children (14%, $p < .05$). In turn, group three was primarily comprised of single-parent families (80%, $p < .001$) with economic problems (97%, $p < .001$) and living in neighbourhoods unsuitable for raising children (87%, $p < .05$).

Social and family relationships had many differences, with groups one and three having more cases of broken families (77% and 73%, respectively; $p < .001$) and

caregivers overburdened with parenting (63% and 60%, respectively; $p < .001$). Group one also had a high percentage of cases without skills to cope with children's problems (85%, $p < .001$) and recent episodes of abuse (25%, $p < .05$). Group two had positive overall results in nearly all of the indicators in this area (94% with a good relationship with the father, $p < .001$; 6% cases of broken families, $p < .001$; 86% with skills to cope with the child's problems, $p < .001$; 0% caregivers overburdened with parenting, $p < .001$; and 6% cases of domestic violence and discord, $p < .001$), compared to the other groups. In turn, group four stood out for the fact that its children had good relationships with the father (89%, $p < .001$).

With regard to social and antisocial behaviour, group four was negative in most factors (20% of children described as friendly, $p < .001$; 44% with good relationships with peers and professionals, $p < .001$; 94% of children lacking social skills outside of the family, $p < .001$), while group one had a history of violent behaviour by adults (56%, $p < .001$). Groups two and three have no children with behavioural problems (0% in both, $p < .05$), and practically no adults with violent backgrounds (0% in group two and 3% in group three, $p < .001$).

In physical and psychological health, group one was again negative, both in terms of children (69% with learning problems $p < .001$) as well as adults (24% with psychosocial problems and 24% with substance abuse, $p < .05$). Group two had no situation of risk in this regard (0% children with learning problems and 0% with a specific behavioural or emotional disorder, $p < .001$), while group four had a low prevalence of learning problems among children (5%, $p < .001$).

Education reinforces the pattern previously observed in groups one and two, in that the former stood out for being negative in all indicators analysed (65% cases in which the teacher said that the child was not achieving his/her potential, $p < .05$; only

26% of caregivers involved in the child's education, $p < .001$; 79% of children had special education needs, $p < .001$; and 52% frequently changed schools, $p < .001$), while the latter group was positive (0% cases in which the teacher said that the child was not achieving his/her potential, $p < .05$; 94% of caregivers involved in the child's education, $p < .001$; 6% of children had special education needs, $p < .001$).

Conclusions and discussion

With the goal of creating a needs-led program, we screened risk and protective factors of children and their families at a local community children centre. Briefly, economic problems and the inadequacy of the neighbourhoods they live in were the main aspects that apply to most of the sample group, although the area with the highest prevalence of risk factors was social and family relationships. With regard to protective factors, nearly all children had a good relationship with their mother, peers and professionals.

The identification of needs patterns led to the identification of four different profiles. Each of these profiles refers to different levels of risk for the development of the children comprising the sample group under analysis.

The first group had the highest number of older children, with more cognitive development difficulties, belonging to families with more problems and, consequently, with higher degrees of exposure to the risk factors assessed. The second group corresponds to families with few or no risk factors, parents with suitable educational skills and children whose overall development matched their age. The third group was mostly comprised of children of African origin, in single-parent families, whose caregivers were overburdened by the parental role, but with few indicators of psychosocial maladjustment. The fourth and last group had the youngest children,

showing signs of social behavioural problems and belonging to families lacking parenting skills.

Selection of target group and definition of type of service

Except for the families in group two, the assessment pointed towards the existence of needs which a merely educational service would not properly address, thus requiring a response centred on the family and not just the child.

Group four, which was comprised by the youngest children at risk, was chosen by the community children centre to design and implement the intervention program presented here. This target-group was selected in order to foster the promotion of a culture of prevention and early intervention in the kindergarden service.

Although these families had no signs of abuse, they were exposed to a number of factors that could compromise the children's well-being and healthy development, particularly with regard to socioeconomic issues and the poor performance of the parental role. Signs of a challenging family environment (i.e., broken family; single parent; domestic violence and discord) were also observed in about a third of the families that comprised this group. Problems of psychosocial adjustment found in most of the children suggest that the adversities of the context were indeed beginning to affect their development, particularly concerning social and antisocial behaviour.

The focus of the intervention in this group positioned the service target from the standpoint of a secondary level of prevention (i.e. intervening with high-risk groups, or where problems have begun but are not yet strongly entrenched), which was an advantage, given the higher potential for effectiveness of these responses for this age group compared to those of late intervention (McCroskey & Meezan, 1998). Indeed, there is evidence endorsing preventive interventions conducted with selected, targeted

populations (e.g., Barlow & Steward-Brown, 2003; Olds & Kitzman, 1993; Roberts, Kramer, & Suissa, 1996; Wekerle & Wolfe, 1993).

Study 2

One of the key principles in designing programs is that they possess theoretical grounds, and are put together based on empirical evidence (Buunk & Vugt, 2008). An intervention program is defined by its intentionality (Cowen, 1980), which implies that the goals and strategies for change come directly from theories and research pointing at the “paths” of the dysfunction and adaptation (Buunk & Vugt, 2008; Felner & Felner, 1989). Gore and Eckenrode (1994) use the “generative mechanism” idea of Baron and Kenny (1986) to identify a strategy through which the independent variables can influence the dependent or result variable. Therefore, one of the intervention’s immediate goals is to modify the processes resulting in maladjustment.

However, as Whittaker and Cowley (2012) refer, although the evidence indicates that it is important for these programs to have a strong theoretical basis, few articles describe the theory in which the program underlies. In this way, an assessment of the program is a test of its ability to influence the variables and/or processes identified as problematic. This gives policy-makers and service planners evidence of what is (or is not) effective. Indeed, these ideas resonate with the evidence that “the programs proven to be effective generally have clear statements of the theoretical basis on which they rest, and can clearly describe the precise ‘mechanism of change’ they are expecting” (Moran et al., 2004, p. 117). Therefore, the second study includes the formulation of a process model theoretically sustaining the program, a description of its components and verification of its effectiveness. Its goals are as follows:

- (a) Systematize and relate different aspects of the problem to choose the variables for intervention;
- (b) Describe the basis of the program implemented, and show the respective logic model;
- (c) Evaluate the outcomes of all intervention areas defined in the logic model, in order to verify the program's immediate effectiveness.

Theoretical process model and selection of variables for intervention

The group chosen to design and implement the family support program was characterized for having economic problems. They lived in a neighbourhood unsuitable for raising children and half of them had overcrowding homes. Although the relationships between the parents and the child were good, the parents had lack of skills to cope with children's social and behaviour problems. Risk factors such as broken family, single parenting, and domestic violence and discord were also observed in about a third of the families that comprised this group.

Taking these characteristics (i.e. socioeconomic disadvantages - economic problems, inadequate neighbourhood, overcrowding -; poor parenting - lack of parenting skills -; signs of a challenging family environment - broken family, single parenting, domestic violence and discord -; and psychosocial adjustment problems - child social/antisocial behaviour) in consideration, the theoretical model behind this program was based on the evidences about the influence of the socioeconomic challenges, poor parenting, and poor family structure and relations on child development.

Over recent years, a substantial body of research has been indicating that children's development can be harmed by family economic problems and living in

problematic neighbourhoods (e.g. McCulloch & Joshi, 2001; Sampson, Raudenbush, & Earls, 1997). This can be explained, to some extent, by the limited access to resources and opportunities in terms of education, health and employment. There is evidence that families with low SES have difficulties investing in their children's development through the provision of adequate education, housing, and other basic material needs (e.g. food; health) (cf. Bradley & Corwyn, 2002; Mayer 1997).

Nevertheless, the quality of parenting is identified as a key factor explaining the negative effects of socioeconomic disadvantages on children's development (cf. Calheiros, 2006; Dodge & Pettit, 2003; Belsky, 1980). Lack of parenting skills and knowledge, together with unrealistic expectations on children's development, have been shown to be negatively tied to adversity of the surrounding context (Simons, Johnson, Beaman, Conger, & Whitbeck, 1996) and to the family's low socioeconomic status (Mcloyd, 1990). In turn, these problems give rise to negative consequences for the children's development (Bauer & Twentyman, 1985; Calheiros, 2006; Klebanov, Brooks-Gunn, Chase-Lansdale, & Gordon, 1997). Available evidence shows that the impact of these problems on children's development and adjustment is essentially indirect, and is mediated by more proximal factors, especially the quality of parenting (Dorsey & Forehand, 2003; Kohen, Leventhal, Dahinten, & McIntosh, 2008; Mistry, Biesanz, Chien, Howes, & Benner, 2008). Additionally, some studies show that the neighborhood level SES effect on children's antisocial behavior is completely mediated by supportive parenting practices (Odgers et al., 2012).

Family ruptures and poor relationships are also related to problems in child adjustment (e.g., Davies & Cummings, 1998). Likewise, there is evidence that this association is mediated by inadequate parenting practices (e.g., punitive, inconsistent

and uninvolved parenting) (Calheiros, 2006; Conger & Conger, 2002; Conger, Conger, & Martin, 2010; Cooper, McLanahan, Meadows, & Brooks-Gunn, 2009).

Taken together, these evidence suggest that family support interventions, beyond directly improving parenting skills, should also create contexts and environments that facilitate parenting (Daro & Dodge, 2009; Schofield et al., 2011). Thus, considering the target group's characteristics and this brief review, the theoretical model designed for this program (see Figure 1) relies on the notion that socioeconomic disadvantages (economic problems; inadequate neighbourhood; overcrowding) and a challenging family environment (broken families, single parenting, and domestic violence) translate into child development problems (social/antisocial behaviour) mainly through the effects of poor parenting (lack of parenting skills).

-FIGURE1-

Description of the program

The family support program (FSP) is a multi-component program that takes on a holistic perspective in encouraging the proper functioning of the family, developed at a socio-educational institution for children in a vulnerable social/family situation. It follows the principles of cognitive and behavioural family interventions, based on social learning models (Sanders, 1996, 1998; Taylor & Biglan, 1998), and underlies on the theoretical model described above. As such, the intervention, based on the Comprehensive Child Development Program (CCDP) (CSR, 1994; 1997; St.Pierre, Layzer, Goodson, & Bernstein, 1997), is divided into two core services, implemented in a parallel manner (figure 2), to improve the variables that have impact on the child development: (1) parental empowerment, to improve social support and socioeconomic and living conditions; and (2) family relations, to improve the parenting skills.

-FIGURE2-

In the area of parental empowerment, an effort was made to facilitate and encourage families' access to community resources and services, investing in disseminating existing responses and enhancing their social network (e.g., referral to education, employment counseling, vocational training and assistance in securing adequate income support, health care, nutritional assistance, support and training families household management, and promote social skills).

In turn, activities in the area of family relations were focused on education in child development, health care, nutrition and parenting education, and on providing developmental information to increase parental knowledge and enhance appropriate and effective parental responses to child needs, and parent-child interaction activities.

Figure 3 presents the logic model of the program implemented, showing each area's key components.

-FIGURE3-

The multidisciplinary intervention team was made up of one coordinator, one social worker, one psychologist, one childhood educator and two social educators, all working part-time. Rather than duplicating locally-available services, FSP project was designed to build upon existing service delivery networks. FSP relied heavily on an approach in which case managers provided services directly (e.g., counseling) while, at the same time, organizing the provision of other services through individual referrals and/or brokered arrangements with local provider agencies. Case managers and professionals for each family (the maximum three per family) are team members chosen based on the central problem of family and specific areas of intervention.

Families participated voluntarily in the program, which lasted nine months.

The program involves different methods of delivery, such as group work, home visitation sessions and the use of a variety of materials to support the activities.

FSP staff conducted home visits to each family every one or two weeks. Visits typically lasted between 30 and 90 minutes, depending on the family, the case manager/professional, and the particular project activity. The types of activities conducted during the home visit included assessing family needs, preparing a family service plan, counseling parents, support and training families household management (10 families per social educator), promote social skills, providing parenting education/ childhood education, making referrals for services, and taking records of the home-work or services that the family received since the previous home visit. The typical format for the parenting education component of the home visit involved providing information, structured discussion and suggesting on an approach for the parent, the parent conducting the activity with her child, and the home visitor reinforcing the parent's efforts and suggesting alternative approaches. At times, home visitors modeled ways to conduct activities or interact with children.

In addition, families received parenting education in a variety of other venues including classes and workshops (once a month), and information dissemination. All FSP activities in a format of group parenting education classes or workshops were conducted at times convenient for parents, offering child care assistance as needed. Parenting education classes were conducted by FSP staff (psychologist, childhood educator). These typically were established to meet the needs of particular FSP family members group such as single parents.

Furthermore, FSP staff developed written resources containing parenting education information, and disseminated this material to parents and other participating adults. Some of these resources were distributed to all families, while other more

specialized resources were targeted to subgroups of families according to interests and goals.

Evaluation of program's effectiveness

Method

Evaluation design

An experimental study plan was used to implement the process of verifying the program's effectiveness. The aim was to comparatively assess two groups of families and their children (control group and intervention group) at two moments in time (before and after the intervention), randomizing the participants in the two groups evaluated. The participants in the intervention group took part in the activities laid out in the program implemented. The participants in the control group continued to receive a response which was merely educational in nature (i.e. pre-school).

Participants

The sample group was comprised of 40 families, 20 in the intervention group and 20 in the control group (attending preschool). With regard to the total sample group, most of the families had 3 to 6 members (85%), with the mother present in the vast majority of cases (95%), and the father in half (50%). The distribution of children by gender was nearly the same (55% female 45% male), with ages ranging from 3 to 5 years ($M = 4.22$). Most were of Portuguese descent (57.5%), although some children were of African descent (37.5%) and, to a lesser extent, mixed (15%). Analyses of variance and chi-square analyses comparing the characteristics of the intervention and control groups showed no statistically significant differences concerning ethnicity,

household composition, parental levels of educational attainment, and parental working status.

Instruments

Family Assessment Form [FAF] (McCroskey & Meezan, 1997, adapted version of Arrubarrena & De Paúl, 1999). The FAF evaluates the characteristics of the family, the levels of care and stimulation, the type of parent/child relationship and degree to which children's needs are satisfied in the household. The FAF's scores are based on observations and technical evaluations by professionals, and accounts from the family and other individuals involved. Each item is scored on a scale of five (5) points. A score of one (1) signifies positive aspects, while a score of five (5) means that there are serious problems endangering the health and safety of the child, and which may result in his/her removal from the family. The scores of 4, 3 and 2 indicate different degrees in relation to the variable/factor evaluated. With regard to this scale's dimensions, the authors of the version for the Spanish population identified six (Arrubarrena & De Paúl, 1999): (1) *parent/child interaction* (e.g. "emotional bond of child with parents"); (2) *living conditions* (e.g. "cleanliness/tidiness: upkeep of the residence's interior"); (3) *relationship between caregivers* (e.g. "balance of power"); (4) *support for the parents* (e.g. "availability of health services"); (5) *financial conditions* (e.g. "economic management of the household"); and (6) *stimulation of development* (e.g. "time and ability to play with the child").

The FAF was the instrument chosen in this study to assess the outcomes of the intervention areas for parental empowerment and family relations. With regard to levels of internal consistency, in this sample group, the values were adequate or high in all aspects ($\alpha = .867$ in *parent/child interaction*; $\alpha = .875$ in *living conditions*; $\alpha = .935$ in

relationship between caregivers; $\alpha = .699$ in support for the parents; $\alpha = .771$ in financial conditions; and $\alpha = .732$ in stimulation of development).

Social Behaviour Questionnaire (SBQ, Tremblay et al., 1991). We used the parent version of this instrument (42 items) that evaluates disruptive behaviour (e.g. “Inconsiderate of others”), anxiety (e.g. “Tends to be fearful or afraid of new things or new situations”), physical aggression (e.g. “Kicks, bites or hits other children”), inattention (e.g. “Has poor concentration or short attention span”), hyperactivity (e.g. “Restless. Runs about or jumps up and down. Doesn’t keep still”), oppositional behaviour (e.g. “Is disobedient”), and pro-social behaviour (e.g. “Offers to help other children who are having difficulty with a task in the classroom”) in children. Parents were asked to answer if the item did not apply, sometimes applied or definitely applied to the children. This instrument has good internal ($\alpha = .61$ to $.93$) and temporal consistency ($r = .55$ to $.79$), as well as an adequate predictive and concurrent validity (Tremblay et al., 1991).

The SBQ was used in this study to verify the extent to which family participation in the program also translated into positive effects for the children, in accordance with the theoretical process model used in designing the program.

Procedure

After the selection of the target group and the definition of the type of service, professionals were asked to refer the children whose profile of needs matched the target group (i.e. younger children with socioeconomic disadvantages, belonging to families lacking parental skills, who might be showing signs of behavioural problems). From this pool, 40 children were randomly assigned to the intervention and control groups. Afterwards families were approached and invited to participate in the study.

Concerning the evaluation procedure, the instruments were translated into Portuguese, resulting in the creation of two separate versions, which were cross-referenced and back-translated. The FAF was completed for both groups and at both times of the evaluation, jointly by the social worker and social educator, with the support of the team's psychologist. The SBQ was completed by the parents at home or in the kindergarten. *Four families did not receive post-treatment evaluation, therefore the data analyses includes 36 families, 19 of the intervention group and 17 of the control group.*

Results

Parental Empowerment

The *living conditions* and *financial conditions* scales of the FAF were used to assess the intervention area with regard to parental empowerment. Repeated measures ANOVAs were done considering the factors of time (before and after intervention) x group (control versus intervention).

With regard to the results, as can be seen in table 2, between the first and second evaluation times, the families in the intervention group showed significant improvements in both aspects evaluated (*living conditions* and *financial conditions*) compared to the families in the control group.

-TABLE2-

Family relations

The *support for the parents*, *parent/child interaction*, *relationship between caregivers* and *stimulation of development* scales of the FAF were used to evaluate the intervention area with regard to family relations. Repeated measures ANOVAs were

done considering the factors of time (before and after intervention) x group (control versus intervention).

As shown in table 3, between the first and second evaluation times, the families in the intervention group showed significant improvements in the aspects of *support for the parents*, *parent/child interaction* and *stimulation of development* compared to the families in the control group. In addition, significant improvements were not seen in the aspect *relationship between caregivers*.

Parental perceptions of children's social behavioural development

The repeated measure ANOVA for the SBQ subscales revealed no significant interaction effects. However, a marginally significant interaction effect was observed for the inattention ($F_{(1,34)} = 3.743, p = 0.061; \text{Eta}^2 = 0.099$) and prosocial behaviour scales ($F_{(1,34)} = 2.911, p = 0.097; \text{Eta}^2 = 0.079$). Specifically, inattention decreased in the intervention group, whereas it increased in the control group during the intervention; prosocial behaviours increased in the intervention group and decreased in the control group during the intervention (Table 3).

-TABLE3-

This marginal interaction effect explains 9.9% of the variance in inattention and 7.9% of the variance in prosocial behaviour, corresponding to a medium intergroup ES (*Cohen's d* = -0.53, and *Cohen's d* = 0.46, respectively).

Conclusions

An analysis and systematization of the target group's characteristics suggested that the factors identified in the problem portrayed a scenario in which socioeconomic disadvantages translated into psychosocial adjustment problems in the target group's families. This relationship could be explained by the cumulative effects of poor

performance of the parenting role, a challenging family environment and limited access to resources and opportunities. Moreover, the factors identified had varying degrees of importance and impact from the standpoint of the intervention, which itself applied to various aspects of the family (i.e. parental empowerment, family relations). An assessment of the outcomes of the intervention areas laid out in the logic model supported the effectiveness of the program's activities, showing positive progress in parental empowerment (living conditions and financial conditions) and family relations (support for the parents, parent/child interaction and stimulation of development). We also observed a marginally significant effect of the program on parental perception of children's inattention and pro-social behaviour. The children's parents in the intervention group perceived improvements, while the children's parents in the control group perceived declines in these two dimensions.

Discussion and general conclusions

The aim of this paper was to describe the process of designing and evaluating a targeted needs-led intervention that was developed and implemented in Lisbon, Portugal. This is the first time the needs of a population of a general Portuguese children's service have been systematically assessed, and a resulting targeted intervention designed and experimentally evaluated.

The findings of study 1 showed that socioeconomic disadvantages and the inadequacy of the neighbourhoods where the children lived were risk factors found throughout the sample group under analysis. Nonetheless, the area where we saw the highest prevalence of risk factors was social and family relations. This resonates with some of the problem indicators found in an index of child wellbeing in Europe published by Bradshaw and Richardson (2009), where Portugal was ranked 21st out of 29 European countries. In each of the areas evaluated in this index, the results of key

indicators suggested major problems in: 1) health (including indicators on infant mortality and birth weight), 21st in the ranking; 2) subjective wellbeing (including indicators on how children feel about their lives and health), 23rd in the ranking; 3) material resources (including indicators on child poverty), 21st in the ranking; 4) education (including indicators on achievement and youth inactivity), 22nd in the ranking; and 5) children's relationships (including indicators on how easily children can talk to their parents and get on with their classmates), 13th in the ranking.

In our sample, the identification of needs patterns revealed four different needs profiles, with different degrees of risk for the development of their respective children. Except for need cluster two, the families evaluated showed the existence of needs which a merely educational service would not properly address, thus requiring a response centred on the family and not just the child. In the view of the levels of risk observed and the characteristics of the children and parents, this response would entail different types and levels of intervention (McCroskey & Meezan, 1998).

In the target group selected for the intervention, we found a collection of risk factors (socioeconomic disadvantages; poor parenting; challenging family environment; children's lack of social skills) that could compromise the family's functioning and children's development, but without immediate threats to the children's well-being and safety. The problems identified entailed a targeted preventive intervention aimed at balancing the situation and avoiding any worsening of the risk factors found. As such, the family support program (FSP), a multi-component intervention following the principles of cognitive and behavioural family interventions based on social learning models (McMahon, 1999; Sanders, 1996, 1998; Taylor & Biglan, 1998), was designed and implemented for this target group.

The findings of study 2 show that the program had a positive impact on living conditions, financial conditions, support for the parents, parent/child interaction and stimulation of development versus the control group. Matching needs with services appears to have resulted in direct improvements in these areas. We also found marginally positive significant effects on parental perceptions of some of the children's indicators of social and behavioural development (inattention and pro-social behaviour). We hypothesize that the effects on children can be accentuated in a long-term assessment, since improvement in the intervention's target areas may exert a positive, continuous and cumulative influence on the children's development. In fact, the evaluation of other focused prevention programs suggest that some positive results may not become apparent until latter follow-up periods (Nelson, Westhues, & MacLeod, 2003; Peters et al., 2010).

There were some important limitations to consider in this work. First, both studies mainly employed data reported by the practitioners who worked with the children and families, and were not blind to experimental conditions. Future endeavours should make use also of observational and objective measurements. Second, outcomes were monitored only in the short term. Third, the instruments used to measure the outcomes are yet to be subjected to validation studies in the Portuguese context. Finally, the number of families evaluated was quite small. Future initiatives should enlarge the sample group's size to look for factors that might moderate the program's effectiveness.

In spite of these limitations, our approach was effective in clearly defining client needs, and allowed a targeted program to be designed to meet these needs. Experimental evaluation suggested that the program implemented had a positive impact on several areas of family functioning and parental capacity. However, from the results in study 1, it is clear that many of the children in the community centre did not participate in the

program, and still had unmet needs. The next step is to disseminate this approach, and also evaluate other community-based services. Services must then be adjusted and/or created to address the problems identified, and their outcomes must be monitored in order to inform Portuguese policy-makers and service planners.

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