

Parent training for families with mentally retarded children

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ABSTRACT.

The aim of this research was to explore family's relationships in order to gain a fuller understanding of the parent-child interaction processes. It was experimented a parent training aimed at: a) modifying parents' mistaken beliefs on mental retardation and children's behavioral problems; b) reducing their stress; c) increasing their parental self-efficacy, shaping parenting skills and better parent-child interactions.

14 couples of parents with mentally retarded children aged between 5 and 8 were tested. Only half of these families had already completed the parent training. The experimental group was trained to learned behavioral and educational techniques for child management. The control group was not trained. The results proved the parent training efficacy. Compared to control group, the experimental parents showed significant changes in perception of their children problems, a lower stress level and greater parental competences.

INTRODUCTION

This research starts from a contemporary approach to health of family and children, proposed by Christensen (2004). This conceptual model gives a new emphasis on the family's ecocultural pathway, family practices and parent-child interactions.

The aim of research is to understand if and how parents can play a part in promoting the health of their mental retarded children.

The model of the health-promoting family (Fig. 1) concerns factors external to the family and factors internal to it. The external factors include societal factors which provide the material base for the family and will therefore to a large degree shape the resources available to the family (for example, education and knowledge, family structure, ethnicity, social networks) and community factors, such as the local community, schools, the health services, the mass media, peer groups, and any social sphere that contribute to child health.

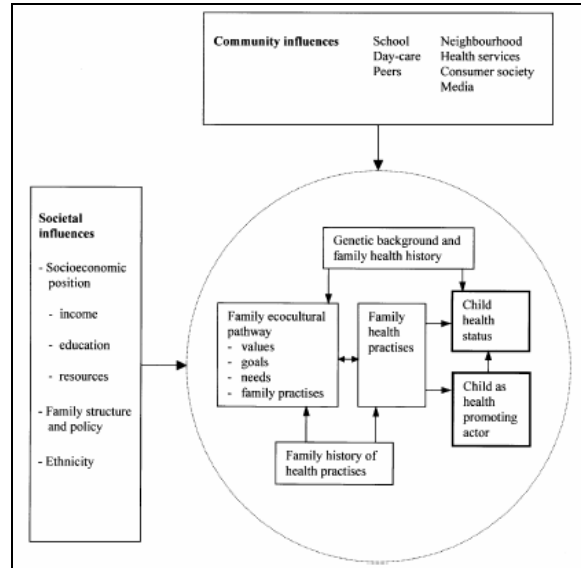


Fig.1: The model of the health-promoting family (Christensen ,2004)

The internal factors include the 'family ecocultural pathway' and 'family health practises' which are the main elements in shaping the processes from and through which both individual and collective patterns of health action, practice and forms of knowledge of health are produced. This

model underlies that the family relationships are the earliest and most enduring social relationships.

They change as environments change: different environments present different opportunities to individuals, and relationships functions should vary along with the principles that guide them. With the aim to understand the factors that lead to effective and ineffective family interactions, many researchers have found it useful to examine closely the specific relationships that make up family life, such as those between parents and children (Pino, 2000).

Christensen (1998) underlies that the children wish for families in which they feel that they are able to contribute to and manage their own health and well being, as well as that of other family members. Important work by Skinner, Burton, & Manlove, (2000) points out the value of 'mattering' for children, the experience that they matter to other people, and Christensen (2002) has highlighted the importance of 'someone being there for you' for children and young people in their relationships with parents and friends. De Winther, Baerveldt, and Kooistra (1999) have argued for the importance of gaining meaningful social experiences (e.g. at school and in their neighborhood) for children to develop the self-respect and social competence that allows them to work better for their own health and well-being.

In according with Christensen (2004) the family can ideally be seen as an ecocultural milieu that works to promote children's health, well-being and development and reduces children's risk behavior. The family can also be seen as a support for the development of the child as a health-promoting actor.

Because the parents have the primary influence during formative preschool years, they are in the best position to help ensure the individual of preventive adjustment and to develop children capacities as health-promoting actor. For this reason, parental training and education are important agents in preventive mental health programs and many studies were focused on training parents in behaviour modification, since 1965. They

include case study reports and experimental studies in which parents were taught to apply behavioral principles or studies in which experimenters directly modified the behavior of parents (O'Dell, 1974).

For instance, research have shown that young children with developmental disabilities often engage in problem behavior such as aggression, disruption, and noncompliance and that these problems can be successfully treated with a variety of behavioral interventions, including differential reinforcement, extinction, and time-out (Lerman, 2000). Many studies, such as Wahler (1969), Zeilberger et al. (1968), in this area has been to empirically demonstrate the functional relationship between parental contingencies and child behaviour.

For these reasons, most of parent trainings target for these kind of families have focused primary on teaching parents behaviour modification techniques for managing specific children behaviour problems, but there has been little effort focused on providing parents with educational skills they need to well interact in each daily situation.

The psychosocial functioning of family with disabled children have been focus on researches and intervention for decades. When compared to families of children without disabilities, families of disabled children may be at risk for stress, depression, less family cohesion, financial strain and experiences of social isolation (Kirkham, 1993). Recent research on emotions and stress associated with having and bringing up a child with disabilities supports the proposition that the parent's assumptive world, directly or indirectly, influences parental well-being, family integrity, parent-child interactions, and, ultimately, child behavior and development (Janoff-Bulman, 1992).

A lot of research has shown that it's quite frequent that, in addition to the already complex problem caused by disability, parent's incorrect evaluations and management can determine an increase in children's behavioural problems. In fact, some of the explanations currently offered for the high incidence of maternal directiveness (i.e. instructional intent hypothesis –Mahoney

et al. 1990 – and the overprotectiveness hypothesis – Marfo, 1984; Burack et al., 1998) appear to implicate parental perceptions and expectations as potentially strong influences on parental interaction style and parenting.

The earlier studies were characterized by the attempt to determine whether it was possible to produce behaviour change in the child by modifying the behaviour of the parents. Walder et al. (1969) categorized three basic types of approaches in training parents: (1) controlled learning environments, (2) individual consultations, and (3) educational groups.

It is our opinion that the educational groups is the best way to guaranty a better family cohesion, and to reduce the experience social isolation. Many researches had underline less cohesiveness stemming from different coping responses of the parents and, in families of children with disabilities, the fathers were less complimentary than were their wives and they take a different participatory role. The father's involvement in these families may not be viewed as necessary supportive. For these reasons, teaching new skills to only one family member may disrupt current patterns of interaction within the family. Our propose is to teach to both parents (father and mother) child management skills by presentation of general information about behaviour modification in the interest of prevent and solution of problems. Moreover, in order to reduce the experience social isolation, training in group allows to show to parents that many other parents live their same difficulties and they can help each others. Of course, this is just a way to start to work on social isolation; the social relationships must be much more amplify to a larger social networks such as the local community, schools, the health services, to guarantee the configuration of social spheres that can contribute to family and child health.

Parent training also has emerged as an important component of treatment, as research findings indicate that maintenance and generalization of treatment effects are more likely when the children's parents and caregivers are taught to implement the

interventions (e.g., Lovaas al., 1973; Wahler, 1969b). Associated benefits of parent training include an increase in family satisfaction and a decrease in the likelihood that the child will be placed in more restrictive settings (Baker et al., 1991; Lutzker, 1993).

We believe that parents need information, but, above all, they need education. For this reason we think that it's necessary, first of all, to teach parents how they can change the child's behaviour in desired direction, reinforcing the desired child's behaviours and ignoring or punishing the undesirable behaviours.

In the last years (Larcan, 1990; 1996), we have worked to propose a behavioural parent training. We choused behavioural approach for two reasons: first, because of the peculiarity of the approach, centered mainly on the principles of learning and on experimented behavioural techniques, and secondly for the greater opportunity for scientific control and the frequent verifications that these trainings allow.

Our objective (Larcan et al., 1999) was to verify if a behavioral parent training was equally efficient in various contexts and for different kinds of problems. So a specific training to parents of non-compliant children was set up with satisfactory results (Larcan and Cuzzocrea, 2000) and one year later (Larcan, Cuzzocrea, 2001), were trained groups of parents of mental retarded children belonged to a high socio-cultural level, and the results also in this case, were significantly positive.

Of course, in relation to the different contexts it was been necessary to modify the contents, but not the structure of the training, and the theoretical background.

The present research was organized to verify the efficacy of this parent training selecting parents with a low socio-cultural level with the principal objective to teach them the basis of behavioural management skills, to make them more aware of their function as agents of change and to help them to get out of the coercitive cycle. Learning the principal techniques of parenting, parents can understand that by modifying their own behaviour they can obtain significant changes in their children's behaviour.

The aim of this research was to explore the relationship between parental perceptions and parenting style, in order to gain a fuller understanding of the parent-child interaction processes. Therefore we focus on the parents' evaluations of their children behaviors and not directly on the children's behaviour and we experimented a parent training aimed at: a) modifying parents' mistaken beliefs on mental retardation and children's behavioral problems; b) reducing their stress; c) increasing parental self-efficacy, shaping parenting skills and better parent-child interactions (Fig.2).

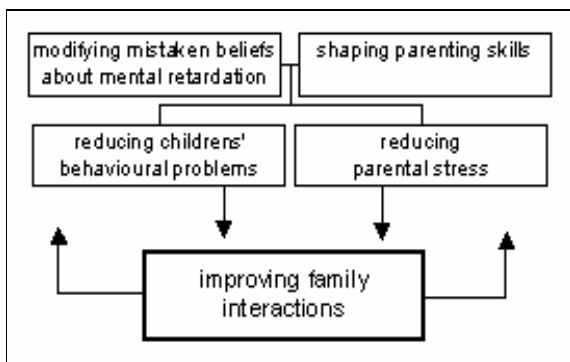


Fig. 2: Objects of the training

We believe indeed that, in order to reduce children behavioural problems, it is necessary to modify parents' mistaken beliefs about mental retardation and to shape parenting skills. It is important that parents acquire competences that enable them to manage several kinds of problems. In fact, if parents are able to understand the reason for a child's behaviour, and if they know how to deal with it, then they should be less stressed and able to adopt an efficient educative intervention for the resolution of the problem. So they will take benefit from this probably because their stress level declines, the children's problem will decrease and, in the end, they interact more successfully.

EXPERIMENTAL DESIGN

The plain of the research had 5 phases: (1) Pre-training, (2) Training, (3) Post-training, (4) I Follow-up, after three months, (5) II Follow-up, after six months.

During pre-training phase, a format was completed in order to obtain information for sampling. It provided indications on the

family components: age, parents' work, etc. In addition, all parents had to indicate 3 adaptive and 3 disadaptive children's behaviours.

PARTICIPANTS

14 couples were selected, all belonging to a low socio-cultural level; aged between 35 and 47 ($M=39.25$; $DS= 4.06$). Their mentally retarded children were aged between 7 and 9, and they were same mental aged. They were trained in a rehabilitation center by same therapist. Half of parents participated in the training program, the other half were selected for the control group.

Parents described their children principally as non-compliant (45%), and in particular they reported disadaptive behaviours during meals (20%), untidy in their room (10 %) and too much time watching television (15%).

They described their child as too aggressive (no physical violence but fighting between siblings, aggressive responses, shouting, etc. 25%). In addition, they related that their child do not interact well with them or with other children (20%). The parents reported too that the interactions with their children were good only 10 % each time.

ASSESSMENT INSTRUMENTS

Observation: several child-parent interactions were recorded on video. The parents were invited to the rehabilitation center and left in a room to play with their child. The frequency and the time of interactions were measured only during pre and post training.

Observation during individual therapy: in the same rehabilitation center, several child-therapist interactions were recorded on video. The rate and the time of interactions were measured only during pre and post training.

Questionnaire for parents evaluation of their child behavioral problems (Questionnaire A): to obtain information about parents perceptions of child behaviour at home, personal autonomy, and interactions, 47 items were selected. The parents had to mark the rate of each behaviour occurrence choosing among never, rarely, fairly often, often and always.

Parent Symptom Questionnaire (PSQ) (Conners, 1985): in order to understand whether parents know which problems are related to handicap. Questionnaire for the evaluation of parenting skills (Questionnaire B): 16 items describing adaptive (8) and disadaptive (8) behaviours, indicated by every parent in the socio-cultural format, were selected. The parents had to mark, from among 5 options, both the behaviours they usually aged and those behaviours which they evaluated as more correct in each specific situation.

Parent Stress Index (PSI) (Abidin, 1995): This instrument was chosen in order to identify: a) the parent-child systems that were under stress and at risk for the development of dysfunctional parenting behaviours or of child behaviour problems (Total stress); b) all child behaviours that make it difficult for parents to fulfil their parenting roles (Child domain); c) the sources of stress and potential dysfunctions of the parent-child system (Parent domain).

TRAINING ORGANIZATION

The main aspects of training are:

- 1) It is a personalized parent training, even if it is done as group work. In fact, contents on which the trainer works are selected from the main problems referred by parents during the assessment phase.
- 2) It is organized in meetings in which the trainer uses behavioural techniques to keep up a high level of parental motivation, and to show by modeling how and when they can use one or the other technique.
- 3) There is no time limit (the duration of training depends on the parents responsiveness).
- 4) Focus is on changing parents evaluations of their children behaviours
- 5) Parents are trained to use positive educative practices
- 6) Parents are trained to use negative practices, only when it is strictly necessary and to do it properly.
- 7) Parents are trained to generalize what they learned to different situations.

Fathers and mothers of the experimental group participated to 12 weekly meetings. During these meeting they learned behavioural and educational techniques for child management (Fig. 3). To motivate parents, a token economy program was structured. Meetings were also organized to teach parents when and how to observe their child. They were given an observation schedule and told to sign the rate of occurrence of adaptive and disadaptive children behaviours and the duration of each. Then they had to try to understand the functional contingences for these behaviours using the ABC's model.

ORGANIZATION OF THE TRAINING

1° meeting: Introduction and presentation of program

2° meeting: Observation of the adaptive and disadaptive behaviours

Short term object: The parents became able to identify adaptive and disadaptive behaviours and to describe them using objective and operational terms.

Long term object: To modify parents mistaken beliefs on children behavioural problems

3° meeting: Observation using the ABC's model

Short term object: The parents became able to understand the contingences for behaviours.

Long term object: To play more attention to the consequences of their behaviours and to promote a better parents consistency and cohesion.

4° - 5° - 6° meeting - Training on techniques to increase the frequency of adequate behaviours

The parents learn to use praise and attention correctly (4°), rewards and privileges (5°), and the allusive praise (6°).

Short term object: The parents acquire competences to child manage, children problems decrease, parent-child interact more successfully.

Long term object: To reinforce parents self efficacy and to reduce parental stress.

7° - 8° - 9° - 10° meeting - Training on techniques to eliminate or reduce behaviour on which positive practices don't have any effect: Ignoring (7°), Time-out (8°), withdrawing of rewards and privileges (9°), physical punishments (10°)

Short term object: Parents are trained to use negative practices, only when it is strictly necessary and to do it properly.

Long term object: To reinforce parents self efficacy and to reduce parental stress.

11° meeting: Exercise on specific problems: integration of the learned techniques.

Short term object: Parents learn to identify the contingences and to choose the best solution on different situations. To reinforce parents self efficacy and to reduce parental stress.

Long term object: To guarantee the generalization process and to reduce social isolation.

ORGANIZATION OF THE TRAINING

12° meeting: Conclusions

Short term object: The parents understand that they are able to relate with their children without trainer's help. To reinforce parents self efficacy and to reduce parental stress.

Long term object: To guarantee the generalization process and to reduce social isolation.

Fig. 3: Organization of the training: Short and long term objects

Three meetings were structured, in order to train the parents to adopt a set of techniques which could increase the frequency of adequate behaviours. The parents had to learn to play attention and to use praises, rewards, privileges and allusive praises correctly.

In the following four meetings, the parents had to learn to use some techniques that could eliminate or reduce behaviours on which positive practices don't had any effect: ignoring, time-out, withdrawing of rewards and privileges, physical punishments.

To favor the generalization, during the last two meetings, the trainer proposed many other situations and the parents had to identify the contingences and to choose the best solution.

All meetings were organized in the following way: first of all, the trainer described the ability to be taught with theoretical references, and examples of practical applications matching the language to educational, cultural and socioeconomic backgrounds of parents. The trainer hypnotized same different daily interactive situations, and touched to parents to manage them and to control the anxiety by modeling. Than, during each meeting, parents had to do exercises to practice with the ability learned by role play, until they improved with. Their performances were corrected using adequate feedbacks.

Finally homework was assigned, with the aid of a memory cards (at the end of each meeting the "key points" were given to parents to remember what they had learned). The homework were discussed and commented on at the beginning of each new meeting.

RESULTS

CHILDREN BEHAVIOUR DURING DIRECT OBSERVATION

Comparing the rate of occurrence of children behaviours during pre-training and post-training observations, it was founded significant differences in all four classes of behaviour [$\chi^2 = 28.179$; $P = .0000$]. During pre-training (fig. 4), it was observed that the positive parent-child interactions were infrequent (3%).

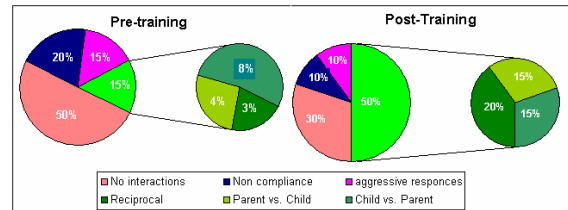


Fig. 4: Frequency of children behaviours during direct observations

The interactions were characterized by children non-compliance (20 %), and it was clear that parents were not able to keep the attention of their children, and only during play (decided by child) were there some interactions (managed by children). Comparing with post-training observations, it was clear that interactions' frequency increased, and in particular the reciprocal interactions parent-child were more frequent [$\chi^2 = 6.72$; $P = .01$].

CHILDREN BEHAVIOURS DURING INDIVIDUAL THERAPY

In the figure 5, there is synthesized the rate of occurrence of children behaviours during individual therapy. Naturally, comparing pre and post training results, it is easy to see a significant increase in the rate of the interactions, but in particular, an increase in those interactions started by child (pre-training: 10% vs. post-training: 20 %).

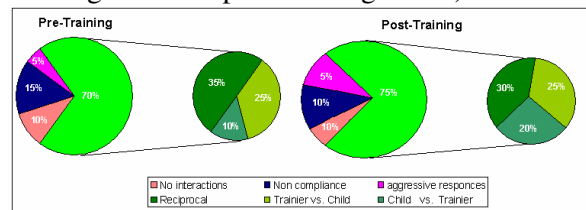


Fig.5: Frequency of children behaviour during individual therapy

In the pre-training, many differences between parent-child and therapist-child interactions were found [$\eta^2 = 67.96$; $P = .000$]. These differences were found even during post-training phase [$\eta^2 = 16.667$; $P = .001$].

This result can be justified by the fact that the therapist had the competence to favor the interactions, maintaining children attention, and helping them to complete a work.

It is important to underline that the parents attended all sessions of therapy. This reinforced our opinion that the parents attending to therapy is important but not sufficient.

QUESTIONNAIRE A

An A.N.O.V.A. 2 (experimental vs. control) x 3 (behavioral classes: time at home vs. interactions vs. personal autonomies) x 4 (different phases of research: pre-training vs. post-training vs. I follow-up vs. II follow-up) were calculated.

There were significant differences between behavioral classes investigated (Time at home vs. interactions vs. personal autonomies) [$F(2,26) = 9.608$; $p < .01$].

Differences between the phases of research were found [$F(3,177) = 32.273$; $p < .01$], and a significant interaction of all variables [$F(6,177) = 3.318$; $p < .01$].

These differences are evident looking at figure 6. It is observed a significant trend towards the different phases. The parent perceptions of child behaviour at home, personal autonomy, and interactions change in particular, comparing the pre-training with the post-training. This trend remains constant in the experimental group.

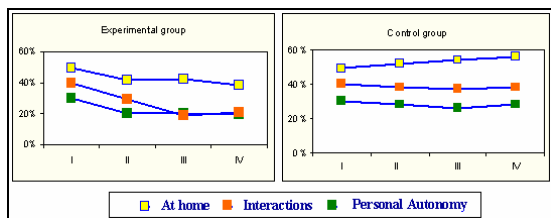


Fig. 6 Parents evaluation of their child problems during the four phases of training

Compared pre and post training results, the statistic analysis underlined significant differences among all the variables considered. We observed a decrease in

parents evaluations about children problems and, this change remained constant in the first follow-up (three months).

QUESTIONNAIRE PSQ

The figure 7 showed the parents evaluation about problems related to disability during the four phases of training.

Between pre-post training of experimental group, the results showed a significant decrease in number of this kind of behaviours [$\eta^2 = 63.26$; $P = .000$].

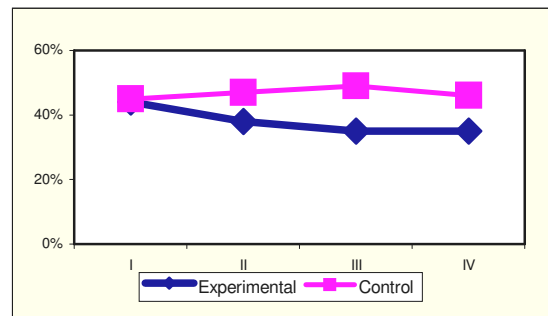


Fig. 7 Parents evaluation about problems caused by handicap, during the four phases of training

In add, comparing pre-post training of control group it was not observed differences between evaluations of parents [$\eta^2 = 1.190$; $P = 1$].

It was possible to conclude that parents learned to evaluate the behavioural contingences and so their evaluations about problems related to disability changes too. In fact, in the post-training, it was observed significant differences between parents belonging to experimental and control groups [$\eta^2 = 55.36$; $P = .000$]. Differences were not significant comparing the evaluations of problems during the pre-training [$\eta^2 = .99$; $P = 1$].

QUESTIONNAIRE B

In the post-test the result clearly showed that the parents have understood what it would be better to do, even if they showed notable difficulty in putting it in to action [$F(1,24) = 7.25$; $p < .01$]. On the other hand, a meaningful reduction of incorrect behaviour by the parents is observed [$F(1,24) = 677.393$; $p < .01$].

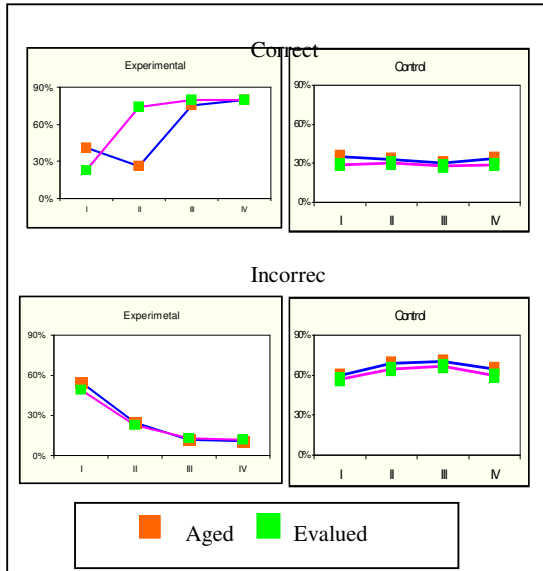


Fig. 8 Parents management of children behaviour, aged and evaluated, during the four phases of training

After three months, the parents seem to show a better facility in putting into action what they have already learned, and, from the results, further reduction of the number incorrect answers is observed. After six months, the parenting skills seem to have been better learned; in fact the parents give correct answers both aged and evaluated.

QUESTIONNAIRE PSI

Comparing experimental group and control group, no significant differences were found in total stress index [$\chi^2 = .074$; $P = .1$], but comparing the results from child domain, it was possible to observe that the stress level was reduced [$\chi^2 = 5.98$; $P = .01$].

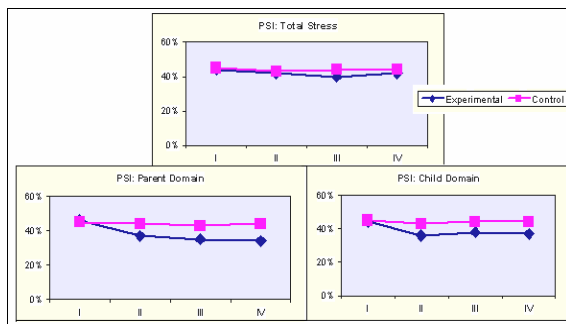


Fig. 9: Parents stress during the four phases of training

In addition, even the results of parent domain were significantly positive [$\chi^2 = 5.06$; $P = .01$];

in fact, it was observed a decline in isolation, depression, and on the other hand, a significant increase in competences, attachment.

The results allowed to believe that teaching efficient competences to parents is a good way to help them to manage the children and to make this management less stressful.

The presence of a retarded child represents a source of stress, and more specifically in parental distress, in parent-child dysfunctional interactions, and in child-related stress.

DISCUSSION

This research focused on the efficacy of a behavioral training on mental retarded children parents with a low socio-cultural background.

Effective parent training require three steps: (1) the parents must learn adequate management skills and changes their behavior; (2) these changes must be implemented with the child; (3) changes must be generalized and persist.

For this reason, at first, it was necessary to modify parents mistaken beliefs on mental retardation and on children behavioral problems.

The empirical results showed a better parents consistency and cohesion. In fact, it was observed that, during the assessment phase, father and mother had a different perception of children behaviours and, consequently, they had different ways to answer to. Just after the second meeting, both fathers and mothers started to distinguish behaviour related by disability from other types and they were able to manage them choosing the same solution and method.

In effective parent training, parenting skills must be generalized outside the training situation and persist after training. For this reason, during all training sessions, the parents had the opportunity to learn the techniques of behaviour modification and than, at home, to verify their efficacy on their children.

The results proved the parent training efficacy. The evaluation of the results suggested same observations:

- 1) compared to parents in the control group, the experimental group showed significant changes in children problems evaluations;
- 2) the results showed that the training helped in daily management of behavioral problems and reduced their stress;
- 3) the effects of training remained quite stable throughout the periods of observation (9 months): after three months, the parents seem to show a better facility in putting into action what they have already learned, and, from the results, further reduction of the number incorrect answers were observed. After six months, the parenting skills seem to have been firmly learned.

In general, during the follow up sessions the parents reported a qualitative and quantitative increase in the parent-child interactions and, consequently, the resolution of conflicts and tensions that had a positive influence on the family functioning.

Even if the results suggested that the learned changes were generalized in different situations, we believe that it is necessary to organize further and longer sessions of training and periodical check-up and recalls.

The results confirmed the training efficacy as one way to prevent the development of behaviour not strictly connected with mental retardation, but it is quite impossible to generalize them because it's very difficult to control all variables that influence the complex family interactions. For instance, it was verified that parents of children with mental retardation ask siblings to assume child-care roles more frequently than in families without retarded children. This is often associated with increased sibling conflict, less positive sibling interactions (Stoneman et al, 1988), and behaviour problems (Gath, Guiney, 1987). The results of a recent research (Cuzzocrea, 2002) showed that parents of mentally retarded children have more difficulties of caregiving even with non disabled siblings and confirmed that siblings of mentally retarded children showed more difficulty to be in

contact with their fathers, but also with peers and with teachers.

Should be interesting to verify which factors of the parent-child relationship have an impact on the socio-cognitive competences of retarded children siblings and organize a training that include even the siblings and all caregivers and social operators that work around a family with a disabled child.

For all these reasons, many other trainings must be tested within both intergenerational (for example, parent-child relations) and intra-generational relationships (children's relationships with their siblings and peers). Through this it should be possible to trace the conditions and processes that facilitate (or hinder) children's health and health-promoting action in their families.

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