

Supportive SEAI therapy in parent-child interactions with atypical development in Albania

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Abstract

Objective: The purpose of the present study is to explore and identify the effects of parent-child dyadic interaction and the efficacy of intervention, according to the SEAI model to children with atypical development (RM).

Method: Four dyads of parent-child interaction with atypical development of Mental Retardation participated in the present study. The mean age of the parents in the study is 42 years old (P = 40; P = 42; P3 = 43; P4 = 45 years old) while the average age of the children is 6 years old (F1 = 6; F2 = 7; F3 = 8; F4 = 8 years old).

Results: At the end of the SEAI treatment, the parents showed significant positive descriptions that they gave of their child (RCI: 0.3; MANOVA, $\alpha = .56$; $\eta^2 p = .715$). Both RCI and MANOVA values showed a significant difference in dyadic emotional disposal and synchronous pairing time (Synchronous dyadic disposal: RCI = 6.63; MANOVA, $\alpha = .017$; $\eta^2 p = .902$; Synchrony: RCI: 0, 23; MANOVA, $\alpha = .075$; $\eta^2 p = .695$).

Conclusions: Emotional dyadic relations that were submitted under the SEAI model showed higher effects on the construct of mother with MR children, whose emotional disposal degree increase significantly in the post-treatment and in the follow-up, treatment stages, thus, prospecting a good maintenance of parent—child with atypical development relations in their ordinary relationships.

Keywords: Dyadic relations, Mental Retardation, SEAI, Parent, Child

1. Introduction

The last decade has been and continues to be an incredibly challenging period for all professionals who have joined in the cause of integrating children with disabilities into a social and education system that allows them to advance and increase their capacity for a personal intellectual empowerment (Hirschberger, Cuban, O'Shea, Joseph & Heeren et al., 2018).

Such aspects help children interact more successfully with the environment and develop their independence in terms of self-care and adaptation to a highly dynamic social environment in which children with disabilities live (Hunter, Vickerstaff, Poppe, Strydom & King et al., 2020). Naturally, parents may feel surprised and even deny the fact that their child may have been diagnosed with cognitive disability as the functioning of the subject may vary from different social environments where the child and his family is placed. Often the family does not accept the information because they do not agree with what the "others" have observed, because they cannot accept that their child has developmental problems, because this information can be very painful or because the information provided by the specialist is not fully understood.

The international literature contains a series of research and studies focused on parent training and evidences that show its effectiveness and potential effects on child development, which prompted us as a research team to include within our focus of treatment an intervention modality that involves the parent directly, like the SEAI method, as expound in this article. In addition to these great theoretical lines, studies began to be conceived in the parent-child attachment not only as the basis for the effective development of the child, but also as the framework within which the development of cognitive structures takes place. Such dynamics shed light on the birth of the inter-subjective model in which researchers with different professional formation are involved in the analysis processes related to early parent-child interactions and the psychopathological consequences associated with them.

Within the dyads of atypical development, the SEAI model, is oriented to the results of recent scientific research that addresses infant development by recognizing the role of the child as an active partner in early attachment interactions and relationship progress. It is important to accurately assess the role of emotions in the cognitive-emotional development of the child in both typical and atypical development.

Studies of the intersubjective model has shown that for the first months of life the child and the adult experience sharing of emotion-based mental activity (Trevvarthen, 1979; 1993; 1998; Venuti, 2007). This shared experience is determined by the intersection between several aspects of the parent and the structural predispositions of the child subject to mutual influence (Meltzoff & Moore, 1977; 1992; Stern, 1985; 2004; 2007; Trevvarthen, 1999). On one side of the continuum, is the parent who begins to show a higher sensitivity in the perception of the child's emotions, the ability to tune in to the child, to pattern the environment and to involve the child in interpersonal communications based on the sharing of affect and on the other hand, is the child born with a neuropsychological structure with which it can participate in these exchanges not only by responding to maternal behaviors, but also by holding an active

role congruent to the mental state through behaviors such as imitation, eye contact, vocalization, ability to follow interaction, etc. (Biringen et al., 1998; Emde, 1980; Stern, 1985; Tronick, 1982; 2003). What has been concluded from the many years of research conducted through micro-analytical observations of parent-mother-child interactions is that this relationship develops through the participation of affective states that are always transforming and that the quality of the first emotional exchange plays an essential role in the cognitive-emotional development of the child with atypical MR development.

2. Literature review

Parent-Child Dyadic Relations

For children with MR, as with other children, development is influenced by the quality of parent-child interaction (Brinker, Seifer, & Sameroff, 1994; Greenspan, 1997). This relationship depends primarily on the limitations of the pathology itself, but also on the interaction that the parent and the child make, an interaction necessary to challenge the limits of the pathology (Pino, 2000). Studies have relied on several aspects related to the ways of characteristic interaction of dyads between mother and father and child with mental retardation (Falco, S., Cimino, M., La Femina, F., & Venuti, P., 2008). In an attempt to understand the pathogenesis of this relationship, the psychodynamic approach links it to the directive behavior experienced by the mother during her development which is later reflected in the breakdown of the dyad of normal development (Beeghly, Weiss-Perry, & Cicchetti, 1989; Cielinski, Vaughn, Seifer, & Contreras, 1995)

Other authors associate the continuation of this form of insecure and anxious attachment from the birth of a "disabled" child with negative mental representations internalized by the child as imposing and insensitive (Berger & Cunningham, 1983). This line of argument highlights the complex nature of the mother-MR child interaction and the need for a more universally accepted approach that provides a vision on the contributions of both parties in this affective relationship. For a mother, raising a child with mental retardation is a real challenge either because of the health problems that come from the mental retardation itself or because of the difficulty of fully accepting a child who behaves differently from others, with areas of delayed actions with others (Hodapp, 2002).

Unlike the father, the mother reacts with a strong involvement in caring for the child to whom she feels a strong sense of frustration and anxiety. These emotional reactions affect the way the child relates by creating controlled attitudes that if excessive, affect the child's development. If mother-child interaction has been largely researched in recent years, researchers are now also focusing on the role of the father in the development of children with disabilities (Glidden, Billings, & Jobe, 2006; Olsson & Hang, 2001; Shin et al., 2006).

Emotional Support and Intersubjective Activation (SEAI) Therapeutic Interventions Focused on Relationships

Western European countries and American research have implemented the principles of the SEAI method in the treatment of parent-child dyad with MR, a model which we have used in the treatment of this paper. The choice to work together with the parent and child arose from,

both practical clinical needs and theoretical formulations. Motivations that made us intervene in the parent-child dyad come from our clinical data with cases of children with MR as well as recent research in developmental psychopathology such as: the importance of the parent-child relationship in the cognitive and emotional development of the child in atypical development situations; a developmental disorder changes the quality of parental care, increases the feeling of parental insecurity and makes them vulnerable to stress and also the results of studies involving direct evolutionary treatments with parents such as Responsive Teaching, Denver Model and Floor Time. All these aspects display important data on the development of the child, the reduction of symptoms and the generalization of the knowledge gained.

The SEAI method, addressed in the present clinical work, aims to promote a level of intersubjectivity in the dyad and can provide the child with the typology of experience in relationships that need to be achieved during development in addition to the neurobiological deficits that associate their pathology. The intervention itself aims not only to reduce the child's symptoms or encourage appropriate behaviors, but also allows children with atypical development to develop empathic relationships with the parent and acquire key communication skills.

The objectives that are intended to be achieved through this method are numerous, some more universal and related to interaction, others more specific and related to changes in parents and children.

Objectives related to parent-child interaction are focused on fostering synchronous and responsive interaction. Specifically, this objective includes:

1. increase the level of emotional disposal in the dyad, i.e., Improving the level of accessibility through reading and responding skills appropriate to the emotional signals of the other party in the relationship. Disposal in this line is a dyad structured process that involves a range of parent-child skills;
2. increase in the level of synchronicity in exchange that occur during joint play. Synchrony represents that aspect of intersubjectivity that relates to the couple's ability to manage the relationship, modifying behavior in order to maintain appropriate behavior with the child. Interactions in this sense can be called synchronously at the moment when in the behavior of one party that displays a certain mental state (affect, purpose, etc.) follows a behavior that is coherent with the participation of the other party. Unlike emotional disposal associated with a universal and qualitative evaluation of interaction, synchronicity relates to concrete behaviors observed in exchange and interaction situations in the unit of time

Stages of SEAI intervention. The parent-child-oriented SEAI intervention has a short duration of up to 6 months and can thus be characterized as a focal therapy. Although the therapeutic environment where we assessed the subjects participating in this study is relaxed and slightly structured, the achievement of the objectives described for them takes place in three stages that are standard for all subjects. **Stage 1:** Functional evaluation. The intervention begins when the child comes to the consultation room at the request of the parents or from the Social Care Service. The initial stage is represented by the assessment

aimed at formulating the diagnosis and elaborating the functional profile of the child, i.e., from the description and analysis of strengths and weaknesses of development. **Stage 2:** Construction of interactions. In the second stage of SEAI treatment, the therapist has an active role and intervenes more than the parent. The goals of this stage are to achieve a more specific awareness of the forms of interactive functioning with the child and to achieve self-regulation. At this stage, the therapist should also be involved in playing with the child and verbally verify his mental states. Thus, it is required to structure intersubjectivity and to develop a form of reflective thinking on the functioning of the child, to display health modalities of interaction, effects and interactions, the importance of possible symptoms, etc.

Stage 3: Consolidation of interactions in this stage of the dyadic relationship comes as a result of a structuring of positive attachment patterns. At this stage, as therapists, we were stripped of the role of mediator in the dyad and left room for the parent to observe and intervene in conflict situations. Intervention in conflict situations at this stage is related to managing the negative effects that interfere with the rules of interaction through the involvement in play.

3. Research methodology

Purpose of the study

The aim of the present study is to identify the effects of parent-child intervention with atypical development (RM) according to the SEAI model. The model objective is to promote a form of synchronous and reactive interaction calibrated with the developmental abilities of the child.

The main hypothesis is that in atypical development situations parental dispositions are not appropriate in involving the child in the relationship thus, hindering the activation of some evolutionary processes necessary for the child's mental development.

Participants

Four parent-child dyad group with atypical development of Mental Retardation in the clinical environment in Albania participated in the present study. The case diagnoses were performed according to the diagnostic criteria of Zero to Three (2005) and DSM-IV TR (American Psychiatric Association, 2000). The average age of the parents in the study is 42 years old (P = 40; P = 42; P3 = 43; P4 = 45 years old) while the average age of the children is 6 years old (F1 = 6; F2 = 7; F3 = 8; F4 = 8 years old).

Research Design

The research method used in the present paper is a mixed-based. A careful evaluation of the instruments allowed us to collect important data on the sample, setting criteria for the subjects included in the study and those of exclusion. The study was conducted through specific research cases that represent a significant form of the treatment process because it allows the verification of whether for specific subjects a certain form of treatment is effective or not (Antonucci, 2007; Fonagy & Moran 1993).

Ethical Issues

Based on the approval of Commission of Ethics of the Clinical Directorate of Albania, data collection began with the case studies. A detailed Informed Consent was introduced to Parents regarding the Purpose, Research Design, SEAI General Instructions and Expected results of the treatment. At the end, a full copy of the treatment outcomes Report was delivered to each parent participant in the study.

Maintaining the confidentiality and anonymity of subjects under which subjects were informed about the treatment of personal data of children and minors. Collected data will be used only for research purposes respecting the principle of anonymity and confidentiality under the European Data Privacy Protection Act.

Procedures

All evaluation sessions served to collect baseline data to evaluate the effects of treatment. The assessment included medical and family history that collected information on parental representations of children and their parenting skills. This meeting was followed by 4 or 5 sessions of evaluation of the child, parent and their interactions. Children were administered standardized tests that allowed diagnostic evaluation and understanding their developmental profile. A special session was dedicated to the analysis of parent-child interactions where the parent was asked to play 20 minutes with the child in an environment with standard toys. Parents were administered a set of questionnaires that allowed us to delve deeper into the child's profile and understand some aspects of parenting. When the parents agreed to submit treatment, a preliminary meeting was held where the characteristics of the intervention were explained: duration, frequency of sessions, intervention mode, goals and the role of the therapist.

Opening this communication channel allowed us to develop a form of parallel play between two dyads: parent-child and therapist-child.

All subjects underwent a standard protocol:

1. **Stage A- pre-treatment observation:** stage that allowed us to establish a preliminary session with the parents where we collected **amnestic** information and primary mental representations of the child as well as the difficulty to treat them. A course with 5 sessions was created for this purpose, with a frequency once a week, where an evaluation of the various functions of the child and the parent-child interaction was performed. The first two sessions were not structured and did not intend an administration of feedback; this allowed parents and children to become familiar with the environment and psychologists. The Griffith Developmental Mental Scale (GDMS) and the Montreal Cognitive Assessment MOCA Test were administered in three subsequent sessions for rapid review of mild cognitive impairments such as: attention and concentration, executive functions, memory, speech / language, visual-constructive skills, conceptual thinking, calculations and orientation. The MOCA administration time lasted for about 10 minutes.

2. **Stage B: treatment that introduces two forms of interventions:** one on parent-child interaction with a frequency of once a week for a period of 6 months in 24 sessions. Its

purpose was to help parents to involve children in appropriate synchronous interactions for its degree of development and sensory profile. The other form is an intervention on the mental representations of the parent with frequent monthly meetings for a period of six months in 6 sessions. Each intervention session was divided into two-time phases: the first three months (T1) and the second three months (T2). Values obtained from T2 were used for pre- and post-treatment assessments.

3. **Stage C- step-by-step follow-up:** follow-up stage introduces a number of 2 sessions with frequency once a week where a new evaluation of the behavioral functions studied was performed in the pre-observation stage and treatment.

Instruments

A number of standardized instruments were used in the study that allowed us to assess mother-child interaction, parenting-related aspects, and several areas of child development that make up the orthogonal variables.

- The Griffiths Developmental Mental Scale (GDMS (GDMS, Griffiths, 1996) was used to assess the intelligence and development of children from birth to 8 years old. These scales allow to distinguish children with typical development from those with atypical development. GDMS assesses general mental age and developmental age of each of the six areas of functioning: locomotor, personal and social, listening and communication, hand-eye coordination; performance, practical reasoning.

- MOCA (Montreal Cognitive Assessment) test. The Montreal Cognition Assessment is designed as an instrument for rapid screening of mild cognitive disorders. This test assesses various cognitive areas, such as: attention and concentration, executive functions, memory, speech / language, visual-constructive skills, conceptual thinking, calculations and orientation. The time to administer MOCA is about 10 minutes.

- The Parental Style Questionnaire (QSP; Bornstein, Tamis-LeMonda, 1989; Venuti, Senese, 2007) was used to assess the parenting style, a self-reported parent-administered questionnaire that classifies the type of educational style as social, didactic, or limiting. The questionnaire consists of 46 items that describe different qualities and behaviors related to interaction situations with the child in two main areas: the behavior displayed in reality (real style: Form A) and the will for what the ideal behavior should be (ideal style: Form B).

- Qualitative clinical conversation analysis: to get an assessment of the mental image that the parent has of their child, an ad hoc grid of analysis was built on the descriptions given during the clinical conversations. The grid envisions 4 categories that include descriptions of behavior, temperament, skills and affections. For each category the emotional polarity carried by the parent (positive or negative) was indicated.

4. Findings

As it can be revealed from the following tables and analysis, at the beginning of the treatment of dyadic interaction, parents exhibit difficulties of clinical significance in the realm of dyadic emotional disposal. At the end of the treatment, changes of clinical significance

appear, such as in the line of emotional involvement, dyadic mental representation and active reaction of the child.

Table 1: Descriptive statistics within stages of dyadic interaction

Session	Positive child Freq Ass	Negative child Freq Ass	Positive Child F Freq Rel	Negative Child Freq Rel	Mean	SD	Total
PRE 1	1,89	4	0,18	0,91	.32	.13	5,89
T1	12	2,4	0,89	0,13	.44	.16.12	14,4
T2	16	2	0,89	0,11	.54		18
Flw up	13	4	0,7	0,3			17
Incr % Pre T2	701	-68	432	-87			151

Table 2: RCI of the interaction scale

Measure	PRE-Mean	Post Mean	RCI	MANOVA ($\eta^2 p$)
Emotional dyadic disposition	20	26,23	6,63	,886
Dyadic synchronicity	0,32	0,55	0,23	,701

The data of these indices revealed that at the end of the treatment in terms of behavior, parents are more willing to enter into relationships with children (parental dyadic emotional disposal: RCI = 6.63; MANOVA, $\alpha = .017$; $\eta^2 p = .886$; dyadic synchronicity = RCI: 0.23; MANOVA, $\alpha = .075$; $\eta^2 p = .701$).

Table 3: Reliable Change Index for the dyadic parent-child

Measure	PRE-Mean	Post Mean	RCI
Sensitivity	5	7	2,36
Structuring	3	4	0,9
Non intrusiveness	2,7	4	0,73
Non hostility	3,98	5	0,1
Parental disposition	14,8	18	5
Sharing	,16	,18	0,1

While the statistical significance refers to the magnitude of differences of an orthogonal variable studied at two different stages, clinical significance assesses the specific weight that this difference has at the clinical level (Dazzi, 2006). Therefore, to assess the significance of changes in dyadic and inter-subjective relationships we used Reliable Change Index data

(RCI; Jacobson & Truax, 1991) and the values of the Eta Partial Information Framework ($\eta^2 p$) calculated through the application of different MANOVA with inter-subjective design in two forms of treatment (Pre and Post treatment) and 3- time levels (PRE, T1 and T2). RCI is a widely used index for assessing the clinical significance of change in clinical psychology and therapy and considers the number of subjects ranging from a fraction of dysfunctional values to that of normal values (Jacobson & Truax, 1991; Jacobson, Follette & Revenstorf, 1984; Jacobson, Roberts, Berns, McGlinchey, 1999; Ferguson, Robinson & Splaine, 2002; Evans, Margison & Barkham, 1998). This index was calculated based on the difference of the means collected from the descriptive data of the pre- and post-treatment phases and the reference of these values to the standard measurement error.

Reliable Change Index data showed that not all changes are clinically significant. As reported from the tables above, changes in the values of Structuring, Non- intrusiveness and emotional disposal of the parent are of clinical importance. Sensitivity, Non- Hostility, and Sharing time values have no specific clinical significance. In its general picture, treatment had effects on the quality of emotional exchanges that were translated into the quality of the parent-child dyadic relationship.

5. Discussion

In the present study we explored on the clinical significance of the changes observed in the pre- and post-treatment stage to identify differences occurring in subjects that were submitted to SEAI models. For this purpose, we used the data of age averages calculated through MANOVA with inter-subjective design with 2 levels of treatment (pre and post treatment) and 3 -time levels (PRE, T1 and T2).

Statistical indices revealed that at the end of the treatment parents' behavioral patterns were more willing to enter into relationships with children (parental dyadic emotional disposal: RCI = 6.63; MANOVA, $\alpha = .017$; $\eta^2 p = .886$; dyadic synchronicity = RCI: 0.23; MANOVA, $\alpha = .075$; $\eta^2 p = .701$).

Although there is an improvement in sensitive disposition in key areas of disposal (Sensitivity, Structuring, Anger, and Intrusiveness) the RCI indices in Table 3 showed us that the greatest clinical changes appear in parents' ability to structure their play environment and follow the order of exchanges without being intrusive. Despite this, no significant differences appeared in the timing of the interaction exchanges. This means that the time that parents are involved in synchronous exchanges is consistent with what children can tolerate according to their own difficulties. The sharing of positive or negative feelings developed by the relationship with the child was observed in the play- session and the analysis of the clinical conversation helps the parent to process in mature form, with self-observation and humor their personal and child mental states. Our mental functions as therapists support the parent's ability to explore mental states that may appear different, hypoactive or intrusive to the child in a more open-to-the-child form.

Another change of clinical significance was the more positive form of description that parents made of their child (RCI: 0.3; MANOVA, $\alpha = .56$; $\eta^2 p = .715$) coherent with the level of

functioning of the child. Knowing the child's resources and abilities allows parents to be more optimistic about the future and to give emotional support to the child. Both RCI and MANOVA values showed a significant difference in dyadic emotional disposal and synchronous pairing time (Synchronous dyadic readiness: RCI = 6.63; MANOVA, $\alpha = .017$; $\eta^2 p = .902$; Synchrony: RCI: 0, 23; MANOVA, $\alpha = .075$; $\eta^2 p = .695$). The treatment yielded positive effects on the quality of the emotional exchanges that turned into increased sharing between parent and child. The most obvious effects of treatment on the emotional development of the child are shown in the emotional regulation and achievement of goals. Developmental changes encountered in children with MR hampered the progress of other compromised areas. These data are coherent with the principles of the SEAI model because the work with parents itself is oriented towards the goal that the child has to experience a state of calm and regulation and a sense of purpose in life. The treatment through the SEAI model has laid the foundations for the child to expand his social repertoire and to be a mutual participant in the dyadic exchanges with the parent.

6. Conclusion

In the present study we were focused on a supportive therapeutic treatment through a new model like SEAI applied to parent-child dyads with atypical development, especially Mental Retardation. To assess this goal, we relied on various reviews of a theoretical and clinical nature. Numerous researchers have highlighted the very important role of relationship building in the emotional, cognitive and social development of the child (Tronick, 1989; 2005; Beebe et al., 2005; 2000; Greenspan, 1997; Pressman, et al., 1999). Other significant research to our study relate to changes in the parent-child relationship with atypical development-Mental Retardation. Studies by Cielinski et al. (1995), Hodapp (2002), Doussard-Rossevelt et al. (2003) have shown that low cognitive functions, dissonant reactions, and social goals activate in parents a tendency for authoritarian parenting style, which tends toward physical control and in many cases provokes anger of the child and the parent. Our primary goal was the request to address a new supportive course to help parents find effective ways to interact with their child and maintain an affective sharing. The model of Emotional Support and Activation of Intersubjectivity (SEAI) presented in this study, applied to the parent-child relationship, aims precisely to promote an intersubjective level and equip the child with a form of relational experience with which he can overcome deficits of neurobiological development underlying pathology. Treatment aims not only at symptomatic reduction but also at promoting appropriate behavior and establishing empathic relationships and communication skills (Venuti, La Femina, de Falco & Esposito, 2009). Referring to the theoretical construct of dyadic emotional disposal, the SEAI model leads the parent to acquire more sensitive interactive strategies, to develop the ability to understand communication and reaction more empathically, to process negative affect, and to structure a balanced play environment with autonomy and inclusion. The functions of the therapist, in this case, seek to show the parent through interaction, to develop successful interaction with the child and to stimulate a reflective thinking about emotional experiences in emotional exchange. Another spectrum of exploration in SEAI relates to parental mental representations in clinical interview analysis on the representation of current experiences with the child and operative

models of caregiving (George & Solomon, 2002). As Stern argues, intersubjective exchanges between mother and child are driven primarily by her parenting ability, the way her child lives with atypical development, and her attitudes at the time of assessment (Stern, 2004). The operationalization of the SEAI method was structured in three stages where the intervention techniques were applied, the results of the SEAI model were evaluated in the participating dyads. Data were analyzed regarding the hypothesis that at the end of the SEAI treatment the parents managed to acquire parental competencies that are appropriate to the level of the child's function and if these competencies had improved the quality of the child's emotional interaction. The assessment of these competencies was carried out through observational and clinical instruments valid for populations with Mental Retardation and atypical development and with standardized assessment tools in the case of MOCA . They were applied either in all sessions or in specific sessions for measuring typical skills as in the case of the MOCA test.

Results showed that parents acquired a development of parenting skills tailored to the child's functional development profile, skills that contribute to improving interaction between parties and increasing the child's emotional competencies. Parents also showed clinically significant changes in their mental representation process. The therapists' s mental functions within in vivo interactions supported the parent's ability to explore the mental states behind hypoactive and controlling attitudes toward the child. Another aspect where the results of the treatment showed effects of clinical significance was the recognition of the resources and abilities of the child, in addition to the difficulties of his development. The data are coherent with the principles of the SEAI model, because the work with parents is oriented so that the child experiences a state of calm and adjustment, increased sense of empathy and social participation over longer periods of time. Dyads showed higher effects on the construct of mother with MR children, whose emotional disposal degree increase significantly in the post-treatment and in the follow-up stages. Thus, mothers achieved a healthy mental internalization of parental forms that allow emotional connection in relationships and experience more positive effects of child change, as children with MR present with mild symptoms rather than severe developmental deficits. These dyads displayed a function that tends to be positive and balanced through an innovative and understandable model that tends to develop the parent-child relationship from a new spectrum of models addressed to date (Mahoney & Perales, 2005; Mahoney & MacDonald 2007; Rogers, Hall, Osaki, Reaven & Herbison, 2000).

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