

The Five Minute Speech Sample as a measure of parental Expressed Emotion in the field of disability

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Abstract

The purpose of this paper is to provide a review of research literature that has assessed Expressed Emotion (EE) with the Five Minute Speech Sample (FMSS) in parents of children with intellectual disabilities (ID). Very little attention has been paid to the parenting relationship in families in which a member has cognitive disabilities. The research that has been carried out has investigated interactive features by means of comparing groups of children with typical development and sample groups of at-risk and disturbed children. Specifically, the literature on Expressed Emotion in parents of children with intellectual disabilities is sparse. A study of PsycINFO found eleven articles about EE in families of adults or children with cognitive disabilities. In these studies, EE was measured by using the CFI or the FMSS.

Keywords: Expressed Emotion, FMSS, Intellectual Disabilities

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1. Introduction

Over the last two decades the literature on parenting has considered EE as a new dimension for studying the child-parent relationship linked to the emotions. Expressed Emotion (EE), is a qualitative measure of the ‘amount’ of emotion displayed, typically in the family setting, usually by a family member or caregiver. EE measures hostility, warmth, and positive remarks. It was developed as a measure to assess expressed emotion (EE) in relatives of adult patients with mental disorders (including schizophrenia, bipolar disorder, depression, and eating disorders) and to predict relapse in these patients (Vaughn & Leff, 1976; Eisenberg, Thompson, Fabes, Shepard, Cumberland, Losoya *et al.*, 2001; Hooley & Parker, 2006).

Brown and his colleagues in several studies (Brown, Birley, & Wing, 1972; Brown, Monck, Carstairs & Wing, 1962; Brown & Rutter, 1966) found that when a patient with schizophrenia – and for this reason hospitalized - had a parent with high EE and this parent was very close to him, the patient had more risk of a relapse after having been discharged from the hospital. Other research (Vaughn & Left, 1976; Miklowitz, Strachan, Goldstein, Doane, Snyder, Hogarty *et al.*, 1986; Goldstein, Talovic, Nuechterlein, Fogelson, Subotnik, & Asamow, 1992) confirmed that patient who lives or returns to a family context with high EE, had more probability to have a relapse than the patient who returned from his hospitalization to a family with low EE. So it seems that the families that express the emotion in an inadequate and excessive way toward the relative produced stress for him and this did not favor his readjustment and the recovery of his abilities.

The first method to measure EE is the Camberwell Family Interview (CFI; Leff & Vaughn, 1985). The most predictive sub-scales of the CFI are relative to criticism, hostility and emotional over-involvement. Criticism is defined as unfavorable comments about a family member; hostility is defined as generalization of criticism or hostility, and emotional over-involvement consists in over-protective behavior, devoted behavior and exaggerated emotional response. All research conducted from the years 1960 to 1990 has used the CFI as Hastings and Lloyd (2007) showed in their literature review. They have demonstrated that CFI has been the principal method for EE in different cultural contexts. In 1986 Magana and colleagues introduced a new method for EE: the Five-Minute Speech Sample (FMSS; Magana, Goldstein, Karno, & Miklowitz, 1986). The FMSS is a brief method, based on the CFI, designed to assess the respondent’s expressed emotional (EE) status toward a family member.

2. The Five Minute Speech Sample

The FMSS-EE rating is derived from statements made by a patient's relative during a 5-minute monologue. Parents or relatives are asked to describe "who is" their child and "how is" their relationship with the child. They are required to talk about their feelings and thoughts in their own words and describe the emotional climate between them and the child, without interruption. The FMSS is audio-recorded and coded, regarding both content and emotional tone, into a grid which includes the emotional involvement of the parent as derived from emotions, feelings and attitudes expressed in the monologue (Magana *et al.*, 1986). The final classification can be High EE, high-level of emotional expression, characterized by an excessive presence or intensity of the emotions, often beyond the control of the subject and scarcely modulated; or, low EE, low level of expressed emotion, characterized by a well modulated and balanced level of communicated emotion. The FMSS measure comprises two distinct components: criticism (CRIT) and emotional over-involvement (EOI) that are subsumed under the more general labels of High EE and Low EE. There are also seven sub-profiles of EE (High CRIT, High EOI, High CRIT/EOI, Borderline CRIT, Borderline EOI, B CRIT/EOI, Low) that are the result of a combination of different scores in the coding sheet. These different profiles assessed these two components the criticism and level of emotional involvement expressed. High criticism is scored when a) the first statement is negative, b) the parents describe a negative relationship with the child, or c) the parent criticizes the child. Emotional over-involvement is scored; when a) parents express clear demonstrations and exhibitions of emotions, b) statements of attitude, c) behaviours of self-sacrifice or excessive protection, d) excess of details in their description of the family and e) attribution of more than five positive adjectives to the family member.

There is also promising concurrent validity data with the CFI (Magana *et al.*, 1986; Moore & Kuipers, 1999; Calam & Peters, 2006). Several research now used the FM. SS as EE measure because it is reliable, quicker to administer and takes much less time to code.

3. EE in developmental age: psychopathology and disabilities.

The research on parenting included the use of different measures: self report measures (questionnaires or scales), interviews, observations of interaction, and a combination of these measures. Each instrument has its limits and potentialities. In the last decades EE has been considered as a new and effective measure of parenting and family functioning. There is strong evidence of positive associations between parental attitudes and behaviours and child development in normal and pathological children and in

both typical and atypical child development (Quine & Pahl, 1985, 1991; Sloper, Knussen, Turner, & Cunningham, 1991; Orr, Cameron, Dobson, & Day, 1993; Blacher, Shapiro, Lopez, Diaz, & Fusco, 1997; Stores, Stores, Fellows, & Buckley, 1998; Baxter, Cummins, & Yiolitis, 2000; Baker, Blacher, Crnic, & Edelbrock, 2002; Hastings, 2003; Beck, Daley, Hastings, & Stevenson, 2004).

In parenting literature, Expressed Emotion is a measure of family members' emotional attitudes toward a child and the FMSS is a narrative instrument to assess this.

However, recent interest in EE has explored its utility as a measure of the emotional relationship between parent and child. Specifically, the construct of EE has been related to a wide range of childhood problems including asthma (Wamboldt, O'Connor, Wamboldt, Gavin, & Klinnert, 2000) depression (Asarnow, Tompson, Woo, & Cantwell, 2001), eating disorders (van Furth, van Strien, van Son, & van Engeland, 1993), conduct disorders (Eisenberg *et al.*, 2001) and cognitive disabilities (Beck *et al.*, 2004).

If, on the one hand, these studies observed positive associations between high parental EE and child psychopathology, on the other, these results open new research perspectives concerning the role of EE parental functioning in respect to the: 1) presence of risk conditions in the child; 2) the relationship and possible interaction with other dimensions of parental functioning. Research has demonstrated a strong reciprocal influence between all these aspects: a bidirectional relationship between parent and child such that the well-being of one is influenced by the other (Falloon, Boyd, McGill, Williamson, Razam, Moss *et al.*, 1982).

There are few studies of expressed emotion in families of children with intellectual disability. In the interests of future research and the considerable clinical implications of this question, we decided to focus the present review on an analysis of EE in parents of children with cognitive disabilities.

4. Expressed Emotion and cognitive disabilities

The present review is specifically aimed on the research regarding EE in samples of parents of children with ID, intellectual (or cognitive) disabilities. Intellectual disability (e.g.: mental retardation) is described by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) as the presence of a sub-average general intellectual functioning associated with or resulting in impairments in adaptive behavior in several areas: communication, personal care, family life, interpersonal and social relationships, use of resources in community, self-determination, scholastic functioning, work, leisure time, health and safety. The onset of this disability occurs before the age of 18. The subjects with ID has strong vulnerability to psychiatric disorders, they have a 5 to 7 times greater likelihood of developing these disorders than in the

non clinical population (Rutter, 1976). The quality of behavioral and emotional disorders are associated with a severity degree of ID.

People with moderate or low disorder manifest behavior problems, emotional problems such as anxiety or depression, obsessive-compulsive symptoms and attention deficit. Subjects with severe level of intellectual disabilities have more autistic disorders, aggressive behavior, schizophrenic symptoms. The label 'intellectual disabilities' can be considered as a broad and non homogenous category, that include different clinical conditions (from mental delay to autism) and with different degrees of severity.

Very little attention has been paid to the parenting relationship in families in which a member has cognitive disabilities. The research that has been carried out has investigated interactive features by means of comparing groups of children with typical development and samples of at-risk and disturbed children (Friedrich & Friedrich, 1981; Roach, Orsmond, & Barratt, 1999; Lardieri, Blacher, & Swanson, 2000).

Specifically, the literature on EE in parents of children with intellectual disabilities is sparse. A study of *PsycINFO* found eleven articles about EE in families of adults or children with cognitive disabilities. In these studies, EE was measured by using the CFI (Leff & Vaughan, 1985) or the FMSS (Magana *et al.*, 1986). The purpose of this paper is to provide a review of research that has assessed EE with the FMSS and only to give the reference of the studies that have used CFI: Greedharry, 1987; Dossetor, Nicol, Stretch, & Rajkhowa, 1994; Clerici, Bertrando, Beltz, Fornara, Iraci, Steiner *et al.*, 1998; Lam, Giles, & Lavander, 2003).

5. FMSS and cognitive disabilities

The first study of the EE construct in families of children with cognitive disabilities was that of Datta, Russell and Gopalkrishna (2002). They conducted a research on the role of caregivers in India. In this study, the first data appeared about the EE of 31 parents of 3-16 year old children with intellectual disability. Participants were recruited from a care centre that provides service for family with children that have mild or profound level of intellectual disability. The caregivers were enrolled either in a day care therapy program and also in a residential therapy program. The family attended therapy for an average of three months. In the study were included the caregivers of children between 3 and 16 years of age with DSM-IV diagnosis of intellectual disability (American Psychiatric Association, 2000); the diagnosis was confirmed with the Binet-Kamat Scale of Intelligence (Indian adaption of Intelligence Scale Stanford Binet-Kamat, 1967) and with Gesell's Development Scale of Intelligence (Gesell, 1940), a measure of developmental abilities of children in motor, behavioral, linguistic and social areas. The exclusion criterion was a presence of any psychiatric morbidity in

the caregiver, evaluation with a semi-structured, clinical interview based on DMS-IV diagnostic criteria. The measures had the aim assessing the burden among the caregiver in the day care of children with ID. The caregivers that give their informed consent, met the researchers in two different sections. Each assessment section required approximately 2 hours. In the first session the researcher conducted the clinical interview in order to assess the health mental state of parents and also administered them the FMSS. In the second session the parents completed the Vineland Social Maturity Scale (Doll, 1935) and the Family Burden Interview Schedule (Pai & Kapur, 1981), a standardized instrument developed for the Indian population to measure the family's perceived burden in six areas: financial, effects of family routine, effects on family leisure, on family interactions, on physical and mental health of other family members. The sample group was composed of 19 mothers, 11 fathers and one grandmother. The children's group with ID was composed of 22 males and 9 females. Datta and colleagues (2002) found high CRIT in 39% and high EOI in 61% of the sample. The presence of high EE predicted a high level of burden among the caregivers. This study has several methodological limits: it is not clear how EE is measured, the labels of criticism and EOI are used but it is not specified how they are coded, percentages of total EE are not given, and it is not clear how the parent's role was assessed. The validity and reliability of the research are very weak and the conclusion of this research is therefore very uncertain.

Beck *et al.* (2004) in their study aimed to identify the dimensions of parenting that, together with child variables (adaptive or problematic behaviour), may affect the EE in mothers. The authors also explore EE towards two children (one with ID and another without ID) in the same family to understand if EE is determined by child factors or if it is reflected in general mothering characteristics. The FMSS in this research was administered by telephone to the mothers of children with intellectual disabilities and with siblings without any clinical condition close in age to the disabled child. The mothers provided a FMSS for their children with ID and another for a sibling close in age to the child with ID. The sample included 33 mothers (mean age = 41.93 years, $SD = 6.14$) of children with cognitive disabilities including 18 with Down's Syndrome. The mean age of the children was 9.02 years ($SD = 3.54$, range 4-14 years) and there were 15 males and 18 females. The maternal measures were: the Block Child Rearing Practices Report (Rickel & Biassatitill, 1982) focused on parental beliefs, the Sense of Competence Scale (PSOC; Johnston & Mash, 1989) to evaluate the parenting satisfaction and efficacy, and the FMSS. The children measures were the Strengths e Difficulties Questionnaire (Goodman, 1997), to evaluate the behavioral disorder and the Vineland Adaptive Behavior Scale (Sparrow, Balla, & Cicchetti, 1984) to assess the adaptive behavior in the child. The results of the study reported that high EE toward the child with cognitive disabilities was found for 60% of mothers. The children who had moth-

ers with higher EE also had greater behavioural problems, more problems of conduct and more hyperactive behaviours. The mothers with higher EE were also less satisfied with their parenting abilities than mothers with low EE. Differences were found in EE towards the two siblings regarding criticism, initial statement, positive comments, self-sacrificing behaviour and EOI. Overall, the mothers expressed higher EE toward a child with ID. The maternal EE towards a child with ID was more negative than EE towards their children without ID. This research had a strong methodological structure. The researchers showed the validity of EE derived from FMSS administered by telephone which was compared with a small group of FMSS proposed face-to-face. They found a complete correspondence in the final coding and the study also had a good level of inter-rater reliability ($k = 0.80$), test-retest reliability ($k = 0.75$), and a strong consistency of code re-code reliability ($k = 0.90$).

Later, Hastings, Daley, Burns and Beck (2006) conducted a longitudinal study in which they examined EE in 75 mothers of children with intellectual disabilities. The FMSS was administered to 56 of these mothers two years later. The cross-sectional longitudinal study has the aim to assess the maternal distress, mental health, expressed emotion and the child's internalizing and externalizing behavior problems. The study included at the same time 1, 75 mothers and their children with ID (50 males, 25 females) had a mean age of 9.75 years ($DS = 4.04$). Twenty-four children had a diagnosis of autism and 26, Down Syndrome. The remaining children had no diagnosis in addition to their intellectual disabilities.

Based on the Vineland Adaptive Behavior Scale (Sparrow *et al.*, 1984) 31% of the children had severe to profound developmental delay and the remainder had mild or moderate developmental delay. Forty percent of mothers did not work outside of the home, 35% were in full-time work and the remainder, in part-time. The majority of mothers were living with a spouse or other partners (83%); 17% of mothers were single parents.

At time 2, after two years, the mothers who continued to participate in the research project were 56. The children's group was composed of 35 males and 21 females, 20 children with autism and 20 with Down Syndrome; the mean age at time 2 was 11.72 years ($DS = 3.92$). The comparison between two groups of mothers and their children who participated at both time points did not show differences, suggesting that the sample at time 2 was a reasonable representative of the initial study sample. The measures for children were reported by the Vineland Survey form, and the assessment of behavioral problems through the Strengths e Difficulties Questionnaire (Goodman, 1997). The maternal measures were the la Hospital Anxiety e Depression Scale (Zigmond & Snaith, 1983) to assess their mental health, the Parent Stress Index-SF (Abidin, 1990) to assess the parenting stress and the FMSS to measure the expressed emotion of mother toward the child. They reported that 52% of mothers ($n = 39$) at time 1 presented

high EE: 16 mothers reported high CRIT, 13 mothers high EOI and 10 mothers both high CRIT and EOI. After two years, 61% mothers reported the same coding of high CRIT and 70% presented the same level of high EOI. Both maternal criticism and over-involvement showed evidence of stability over two years. As in research with children with no disability, statistical coefficients suggested instability over two years (Peris & Baker, 2000). In this study the clear majority of mother expressed emotion codes that did not change from time 1 and time 2. *Beck et al.* (2004) confirmed the previous results when they found a positive association between high CRIT and behavioural problems in the child, and high stress level in mothers. They did not find any associations between EOI and the child's externalizing problems. The study presented a good level of reliability; the code-recode reliability was 100% for CRIT coding and 83% for EOI coding, inter-rater agreement reliability was 83% for CRIT and 94% for EOI.

Greenberg, Seltzer, Hong and Orsmond (2006) and Orsmond, Seltzer, Greenberg and Krauss (2006), conducted a study with mothers of adolescents and adults with diagnosed autism 50% of whom also had intellectual disabilities. They used the same sample and carried out two different analyses on the data at time 1 with 202 mothers (Orsmond *et al.*, 2006) and time 2 with 149 mothers (Greenberg *et al.*, 2006). The results at time 1 showed that 28.7% of the sample was coded as high EE, 19.3% of mothers presented elevated CRIT and 10.9% presented high EOI; only 10.4% did not express warmth. The first study presented good inter-rater reliability ($k = .67$). Orsmond and colleagues (2006) also used the Warmth variable derived from the CFI coding system and for this variable they also showed a good level of inter-rater reliability ($r = .79$). The authors found a positive association between high CRIT, behavioural problems in the adolescents or adults and pessimism in the mothers. They then observed positive relationships between high EOI and greater difficulties in language, and poorer health of the adolescents (or adults). The mothers who are married showed a higher level of warmth and lower level of pessimism toward their children. These results were confirmed in the second analysis (Greenberg *et al.*, 2006) with 149 mothers. After 24 months, Greenberg and colleagues (2006) found that 72% presented the same coding categories as time 1 (Orsmond *et al.*, 2006) according also to Hastings' findings. These results were in agreement with the percentages presented in Hasting *et al.* (2006) research. Greenberg and colleagues also demonstrated that high EE, and high CRIT predicted externalizing behavioural problems and asocial behaviour, but no positive association was found for EOI and behavioural difficulties in general. The children with internalizing problems had mothers with lower levels of EE over time. The results also showed that EE and high CRIT predicted symptoms of autism to a limited extent over time, and again no associations were found with EOI. The results also showed a gender effect: the mothers of females with autism presented higher levels of EE and higher

criticism while the mothers of subjects with diagnosed autism and also intellectual disabilities presented a lower level of EOI.

From a review of these studies that assessed the EE construct with FMSS which were conducted with caregivers of children or adults with intellectual disabilities, it was found that 30%-60% of parents presented high EE, 20%-40% showed high criticism and 10%-60% high EOI. The results demonstrate a strong association between high EE and behavioural problems in the individuals with intellectual disabilities and high levels of parental stress. There also appeared to be no consistent relationship with EOI.

6. Some considerations

Despite the weak methodological structure of these studies, if we assume that the EE construct has been measured in a reliable and valid way, several considerations about the EE's role in the families whose members have cognitive disabilities can be made. We will analyze some implications:

a) More percentages of high EE in parents of ID children.

Mothers of children with ID showed high EE more frequently than mothers of children without ID. High EE in both the form of high criticism or high EOI is present in families of children or adults with ID. The high level of EE is significantly present in a minority, and potentially in a majority, of families of children or adults with ID. These results have very important implications in clinical practice with caregivers of ID children. These parents need to be supported in the daily care of their children.

b) EE, disabilities, behavioural difficulties, parental stress, and social support

The analysis shows the influence of maternal factors on EE. From a review of the literature it emerges that both maternal and child factors may have a role in determining different levels of maternal EE. Researches haven't the aim to propose a causal model of relation between DI and family EE but they can demonstrate the complex interaction between several family factors that can produce an high EE profile associated with psychopathology in subjects with ID. Regarding maternal factors, Beck (2004) in his study, for example, observed significant associations between high maternal EE, level of parental satisfaction/stress and also the level of severity of the child's behavioural difficulties. These findings are confirmed in other studies (Stores *et al.*, 1998) found that mothers of Down's Syndrome children suffered greater stress than mothers in the general population.

In general, the research on the families of ID children has demonstrated significant associations between frequency of difficulties in the child, severity of impairment, parental stress, marital satisfaction, maternal depression,

anxiety and social support (Wikler, Wasow, & Hatfield, 1981; Quine & Pahl, 1985; Quine & Pahl, 1991; Sloper *et al.*, 1991; Beresford, 1994; Stores *et al.*, 1998; Gowen, Johnson-Martin, Goldman, Appelbaum, 1989; Smith, 2001; Hastings, 2003; Beck *et al.*, 2004; Orsmond *et al.*, 2006;). In fact, many families of ID children showed a good capacity to satisfy their child's needs and manifested good adjustment to their child's requests (Glidden & Pursley, 1989; Glidden & Johnson, 1999; Flaherty & Glidden, 2000; Carr, 2005). Many parents were able to recognize the positive contribution of their child to them and to family life (Friedrich & Friedrich, 1981; Beckman, 1991; Dumas, Wolf, Fisman, & Culligan, 1991; Dyson, 1991; Baker *et al.*, 2002; Emerson, 2003). From a review of the literature we have observed a strong association between a child's behavioural difficulties and parental well-being, although from these results it is not possible to outline a causal relationship between the two variables. It emerges from studies that the behavioural problems of the child, and not other characteristics (for example limited capacity in coping or carrying out daily activities), are linked to and affect parental difficulties (Quine & Pahl, 1985; Konstantareas & Homatidis, 1989; Quine & Pahl, 1991; Sloper *et al.*, 1991; Orr *et al.*, 1993; Blacher *et al.*, 1997; Hodapp, Dykens, & Masino, 1997; Baker *et al.*, 2002; Beck *et al.*, 2004).

c) Association between high EE and the child's behavioural problems

Regarding the question of whether EE can be considered a risk factor for a person with ID, the results of studies suggest that parental EE may have predictive validity regarding a child's behaviour (Greenberg *et al.*, 2006). For example, elevated levels of hyperactivity or behavioural problems increase levels of maternal EE (Baker *et al.*, 2002; Daley, Sonuga-Barke, & Thompson, 2003). An analysis of the literature does not allow identification of the specific processes responsible for the development and maintenance of behavioural problems and their association with higher EE.

A possible explanation may be that EE affects the parenting behaviour that has consequences on the child's development. It has been clearly demonstrated in development psychology that parenting and caring practices influence the child's growth (O'Connor, 2002). A difficult child's development may be predicted by a negative parent-child interaction (Baumrind, 1993; Baldry & Farrington 2000; Jackson & Warren, 2000; Mesman & Koot, 2000). It seems clear the association between behavioural difficulties of a child with cognitive disability and the mother's EE. The parent EE can explain some processes responsible for the development and maintenance of behavioural problems in the child. The question is important in understanding the role of parental behaviour and promoting the resolution of behavioural problems in people with ID (Hastings & Brown, 2000).

d) Is it possible to modify EE?

This question is linked to the possibility of modifying EE and at same time

reducing the risk in subjects (both children and adults) with intellectual disabilities, of manifesting behavioural problems. Some studies have showed a strong unidirectional association between high EE and development of behavioural problems; it probably reflects that EE is a parents' trait or personality variable. Research data is unable to show whether EE is a stable characteristic of parents or a trait variable. If we assume that EE is stable, we consider that it is always present. In fact, it seems that other parental variables may be associated with EE, for example, parental stress or social support. The EE may be affected by other parental experiences; EE should therefore be considered a specific state and not a trait variable. At this point, it is important in future research to try to understand which child variables and which aspects of the social environment maintain or produce parental EE.

EE probably presents some state-like and some trait-like proprieties (Hooley, 1998). It is a measure of the parenting that provides information about the affective relationship between parent and ID child. EE is considered a result of an interaction between relatives and the person and it is possible to understand EE only within this interactive network. If we consider EE as a result of interaction, we also can assume that it is possible to modify EE with specific interventions (Falloon *et al.*, 1982).

7. Conclusion

From a review of the literature, it is evident that very little research has been focused on EE in families of persons with ID. From a methodological point of view, few studies present good psychometric proprieties, for example, there are no studies of inter-rater, test-retest and code-recode reliabilities. Another methodological limit is the number of subjects in the samples, and the great variability in demographic and psychological characteristics. The number of subjects in samples is low (from 40 to 202 subjects) and the groups are not balanced for sex, age and clinical diagnosis. The age of participants is strongly differentiated, ranging from infancy (4 years) to adulthood (age not specified). It is therefore not possible to identify developmental trends, since studies with a deeper stratification of the sample are needed. In the sample, clinical diagnosis is also a variable; diagnoses of autism, Down's Syndrome, and mental development delay are included in the field of ID (Beck *et al.*, 2004; Hastings *et al.*, 2006). It is therefore very difficult to compare results that reflect such different clinical situations. It is important that future studies use different samples in respect to the aetiology of cognitive disabilities: the psychological features of these subjects are different and they can be associated with different EE within families. It is not possible at the moment to generalize and extend the results emerging from these studies.

The present samples cannot be considered representative of the population of parents of ID children. These families are very motivated to partici-

pate in the research and they often have specific characteristics that distinguish them from other parents who have decided not to take part in the studies. Another limit of this research is that it considers only the mothers. Other important figures such as the father, siblings, grandparents or other people involved in the care of these subjects have not been included. The aspect of multiple informants is lacking in these studies, as is the assessment of general level of family well-being. It will be important to realize longitudinal research that allows us to understand the time characteristic of EE- if it a stable trait or not. These longitudinal studies will also consent to study the relationship between parent EE and child characteristics as behavioural problems that from research results seems have a positive association with high parent EE.

From a theoretical point of view, the role of parental EE in ID is not clear. Previous research has shown that expressed emotion (EE) in relatives of adult patients with mental disorders (including schizophrenia, bipolar disorder, depression, and eating disorders) predicts relapse in these patients (Butzlaff & Hooley, 1998). This result is not proven for cognitive disabilities. Research and clinic practice is required to analyze EE in this field more systematically. From an analysis of these studies, we can assume that EE has a critical role in families with members suffering intellectual disabilities, and high EE is considered a risk factor for these subjects. Several studies have shown that higher parental EE predicts behavioural problems in the child (Greenberg *et al.*, 2006). Therefore, if we modify parental EE the risk of these problems in a child may be reduced. Greenberg *et al.* (2006) considered EE both a trait and state characteristics of the parent. In fact, Beck *et al.* (2004) has reported that mothers manifested different EE toward ID children in respect to children without ID. Other parental variables may be associated with higher parental EE, such as parental stress or social support. In the literature, authors assume that EE is a parental characteristic that becomes critical when it is exposed to marked behaviour in a child when interacting in a regular way (Hooley, 1998). EE seems to be a parental feature that is possible to change, and this result has several implications for intervention with family members of people with intellectual disabilities. Some studies have demonstrated the efficacy of intervention approaches to modify EE in other types of families (Fallon *et al.*, 1982). There are no studies which explore the association between EE, parental and child-parent interactions in families with members with cognitive disabilities. The presence of positive correlations with other measures may cover for the actual lack of findings in literature on the construct validity of EE in the field of ID.

In conclusion, it is very important to investigate the role of EE in families with ID children or adults. This variable may explain different aspects of the relationship between parent and children with psychological problems. In order to understand the role of EE in the family relationship of

people with ID, the research should try to reinforce methodological aspects and also give more attention to the processes and findings identified.

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