



Review Article

Parents' Emotional Intelligence and their Children's Mental Health: A Systematic Review

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Abstract

Background: Emotional Intelligence (EI) has been the subject of numerous investigations and has been connected to better adaptation to the environment in general and, in particular, to better mental health. Parents' EI seems to be passed on to their children through learning. There are few studies that evaluate the EI of parents in relation to the mental health of their children.

Objective: To synthesize current knowledge about the association between parents' EI and psychological, evolutionary and the mental health-related variables of their children.

Methods: Carry out a systematic review following the PRISMA guidelines. PubMed, Scopus, and

Psycinfo databases were searched up to November 20, 2020, using the relevant MeSH terms and keywords.

Results: A total of 8 studies met the inclusion criteria. All agreed in identifying the positive association of parents' EI with some aspect related to the quality of life of their children. However, there is limited evidence in the direction of this association and explanatory models for it. The studies differed in the type of sample used, as well as in the instruments used to evaluate EI.

Conclusion: A better EI of the parents is related to characteristics in their children such as a better adaptation to the environment, a better state of mental health or a lower severity of psychopathology.

Keywords: Emotional intelligence; Parenting; Child and youth mental health

1. Introduction

The influence of the family on psychopathology acquires unique importance given its role in both the etiology and recovery of people with mental disorders. Views of the role of the family in the onset and maintenance of mental disorders in childhood and adolescence have changed over the years, from a historically negative perspective of the family and its function in treatment [1] to the perspective that considers parents as an important part of their child's recovery [2].

Many studies have dealt with exploring the causal relationships between certain socio-family environments, parenting styles or early experiences and some psychological disorders. In general, it is not

possible to establish a consistent relationship between specific environmental contexts and the appearance of certain disorders. It has therefore been said that to study the role of the environmental context in psychopathology, it is advisable to differentiate the influence of context on the origin of disorders from the influence on their maintenance and evolution [3]. From a multifactorial perspective, the contribution of family is recognized in any psychopathology.

1.1 Emotional intelligence (IE)

According to Salovey and Mayer (1990), Emotional Intelligence (EI) consists of the ability to manage feelings and emotions, discriminate between them and use this knowledge to direct one's own thinking and actions [4]. Emotional intelligence refers to "*a thinker with a heart*" who perceives, understands and manages social relations. These authors have been reformulating the original concept in successive publications [4-7]. These authors structure EI as a model with four interrelated branches:

1.1.1 Perceiving emotions: Perceive, identify, assess and express emotions. This refers to oneself and others through language, behavior, artworks, music, etc. It includes the ability to express emotions adequately and to discriminate between precise and imprecise, honest or dishonest expressions.

1.1.2 Facilitating thought using emotions: This is the ability to integrate emotion and cognition. Emotions prioritize thinking and direct attention to important information. Mood changes one's perspective, from optimism to pessimism, favoring consideration of multiple points of view. Emotional

states facilitate coping. For example, wellbeing facilitates creativity.

1.1.3 Understanding emotions: Understand and analyze emotions employing emotional knowledge. The emotional signals in interpersonal relations are understood. The emotional signals in interpersonal relations are understood, which has implications for the same relationship. It includes the ability to label emotions, recognize the relationships between words and emotions. It makes it possible to reason about emotions to interpret them. For example, that sadness is due to a loss.

1.1.4 Emotion management: Reflective regulation of emotions to promote emotional and intellectual knowledge. Thoughts promote emotional, intellectual and personal growth to manage emotions in life situations. Skill in distancing an emotion and regulating emotions in oneself and others.

1.2 Evaluation of EI

There are several EI evaluation measures which are classified in various categories. The first are the measurement instruments based on questionnaires and self-reports. These instruments include items with short sentences, and the person evaluated assesses his/her own estimation of certain emotional abilities. The *Trait Meta-Mood Scale (TMMS-24)* [8] is an example of an EI self-report. There are also measures of execution or skill, such as the *Mayer Salovey Caruso Emotional Intelligence Test (MSCEIT)*, in which the subject must solve emotional problems and the answer is compared with pre-established scoring criteria. Finally, a third category includes those measures based on observation by others. In these, a

third person reports on the perceived performance of the subject of assessment. This controls for such factors as social desirability bias [9].

1.3 EI and mental health in childhood and adolescence

Studies begun in the early nineties already emphasized that emotional intelligence represents a potential that could make life successful [10, 11, 12]. Some authors [13] think that EI provides the ability to identify different emotional states, understand them and regulate them properly, as well as to develop strategies for adapting to cope with stressful situations. Studies suggest that higher emotional intelligence is associated with less psychological maladaptation in adolescence, in harmony with analogous studies in adults [14, 15, 16].

The EI construct has been associated in several studies with variables related to mental health, such as coping strategies and psychological adjustment [17], internalizing problems, such as anxiety, depression, somatization [18, 19], social anxiety [20], behavior problems [21], self-harm and suicidal behavior [22] and family dysfunction [23]. All in all, high EI is considered a mental health protective factor.

Studies on the role of EI in the development psychopathology or of mental disorders are few. Adolescents with higher EI have generally better adaptation, less perceived stress, fewer internalizing problems and less depression or anxiety. Adolescents with higher EI also show fewer risk behaviors (substance use or attempted suicide, for example), better coping strategies (for example social coping) and fewer maladaptive strategies (for example,

rumination) [24]. Studies, such as the one by Martins, F.M.P. et al. (2019), who reviewed EI in people with schizophrenic spectrum disorders, concluded that they had worse performance in EI than healthy controls and that these deficits could be related to the severity of their symptoms [25].

The EI of patients diagnosed with schizophrenia seems to be as altered as in those patients with autistic spectrum disorders (ASD) [26]. In fact, Fernández, J.M. et al. (2018) concluded that currently available instruments for assessing social cognition differed poorly between individuals with schizophrenia and ASD [27]. Negative associations have also been found between EI and substance addiction and behaviors in both adult and child-youth populations. Lower EI is related to smoking, drinking and drugs. The EI components with the most important role in addictions are identification and differentiation of emotions, as well as emotion regulation [28].

Romero-Mesa, J. et al. (2020) recently published a systematic review showing a negative association between EI and the dimensions of eating behavior disorders. They mentioned adaptability, stress tolerance and emotion regulation among the mechanisms involved [29].

1.4 Influence of parental EI on children's mental health

The influence of family relations on child-youth mental health and on the onset of psychopathology in childhood and adolescence has different facets, among which are family functioning, attitudes toward parenting and parents' personal characteristics. These are combined directly and indirectly with other

variables impacting on the probability of developing a mental disorder. However, this is not to say that there is a linear causal relationship between them. Among the personal characteristics is EI. Parental EI strongly influences the EI of their children through learning [30, 31, 32, 33]. Among the social factors associated with development of emotional intelligence are the parenting or parenting style of the parents and the children's perception of it. Parenting is defined as the parents' attitude toward raising their children [34] and includes three dimensions [35]: Involvement, parental support of autonomy and warmth. When Parenting has these three characteristics, satisfying the basic psychological needs (autonomy, competence and relating) and promoting the intrinsic motivation of their children, greater internalization of abilities and regulatory behaviors of the parents is generated, and the children's self-regulatory systems and emotional competence develop better [36].

Some publications have concentrated on studying the relationship between the different types of parenting and their children's emotional intelligence [37, 38, 39]. These studies have shown that the democratic style (especially the *control* factor) is a powerful predictor of EI (specifically, emotion regulation). Permissive and authoritarian styles are associated negatively with emotion regulation. The negligent style is recognized as the most harmful. Furthermore, the *warmth* factor is positively associated with emotion regulation and emotion management [40, 41].

In view of the confirmation of the relationship between parental EI and that of their children, the association between Parental EI and the mental health

of their children is suggestive of research. The few studies on this subject have demonstrated that it influences several child-youth mental health diagnoses. It is therefore of interest to widen knowledge on the subject.

The objective of this study was to make a systematic review of the data on the emotional intelligence variable (EI) of parents and the association of this construct with psychological, developmental and other variables related to the mental health of their children.

We followed the items of reference for publishing systematic reviews and meta-analysis in the PRISMA Declaration (*Preferred Reporting Items for Systematic Reviews and Meta-analyses*) [42].

2. Methodology

An exhaustive search was made in the PubMed, PsycINFO and Scopus databases, with no publication time limits. Articles in English and Spanish were included. The terms employed were “emotional intelligence”, “parents”, “children and adolescents” and “mental disorders with onset in childhood and adolescence”, with acceptations of each term in a

MeSH search. All the terms were required search conditions. The search was made in November 2020. No time limits were set for year of study publication. At this point, selection inclusion and exclusion began. Table 1 shows article inclusion and exclusion criteria. Two evaluators reviewed the articles in parallel and a third evaluator resolved any discrepancies in criteria between them. The articles that met the following criterion were included: The first criterion was that the studies had to be based on empirical research, so theoretical studies and reviews were excluded.

The second criterion was that articles had to examine the EI construct (or similar constructs) of parents and relate them to some facet of development, mental health or psychopathology of their children. The third criterion was that the EI evaluation instruments used had to be based on a theoretical model and measure at least one aspect of the EI dimensions.

Studies not related to mental health, had no abstract, or did not evaluate any aspect of “family” related to EI, were excluded. For example, studies that evaluated only EI in the child-youth population were excluded.

Inclusion criteria	Exclusion criteria
Studies based on empirical research Studies examining the EI construct (or similar) of parents Studies using evaluation instruments based on an EI theoretical model.	Theoretical studies, reviews and meta-analyses Studies examining other parental constructs or that only evaluated EI in children and/or adolescents.

Table 1: Systematic review inclusion and exclusion criteria.

3. Results

At the end of the selection process, 128 articles had been excluded, resulting in a total of eight articles that met all the selection criteria. It should be emphasized that most of the articles were discarded because they evaluated children’s EI instead of parents’. Two articles found manually in gray literature and Google Scholar were also added. Two more articles were

discarded because there was no access to them, leaving the eight studies finally included. The PRISMA Flow chart is shown in Figure 1. The sample, the main variables analyzed and instruments used in each of the studies, as well as their results in order of variables analyzed are shown in Table 2.

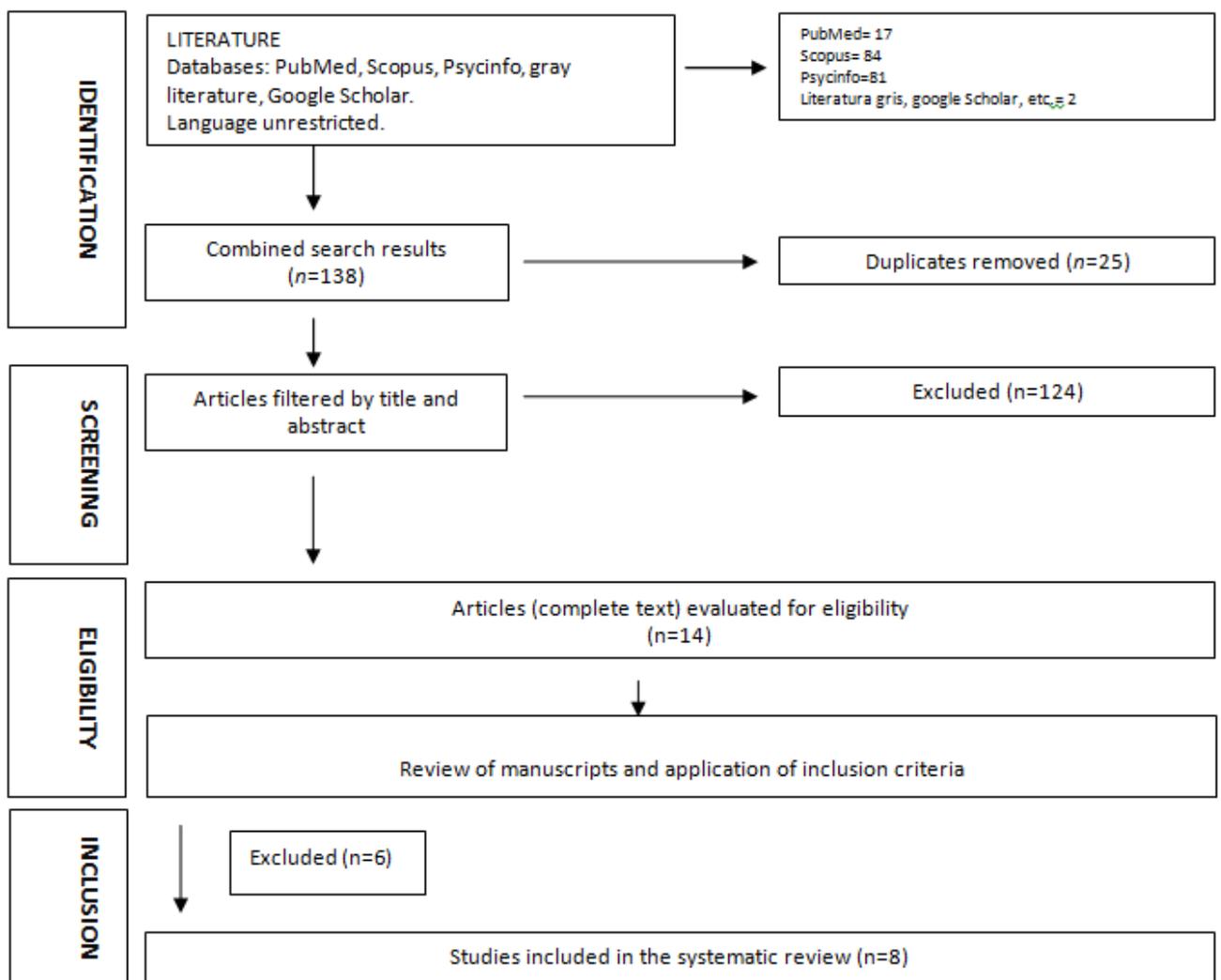


Figure 1: PRISMA Flow chart; Flow chart of selection process.

	Sample	Parents' EI evaluation instruments	Other variables evaluated	Children's evaluation	Main results
Sánchez-Núñez, M. T., et al. (2020). [43]	170 adolescents and young people (85 men and 85 women), and their respective parents (Age range = 14-34)	Trait Meta-Mood Scale (TMMS-24) Perceived Emotional Intelligence Scale-24 (PTMMS-24)		Trait Meta-Mood Scale (TMMS-24) Parents' perception of EI from their children, and children's perception of EI from their parents (Perceived Emotional Intelligence Scale-24: PTMMS-24). Emotional wellbeing. Anxiety and depression in last month. (Mental Health-5: MH-5).	Parents' perception of emotional intelligence (EI) from their children, and children's perception of EI from their parents have a direct effect on children's mental health and also an indirect effect (through children's self-reported EI)
Trigueros, R., et al. (2020). [44]	537 families Age range: parents = 43-65; children = 16-32	Trait Meta-Mood Scale (TMMS-24)	Family self-stigma (Family Self-Stigma Scale) Parents' Burnout (Burnout scale-Maslach y Jackson)		EI is negatively related to self-stigma and burnout. EI may have a protective role against self-stigma, when burnout is reduced.
Havighurst, S. S. et al. (2015) [45].	225 parents (200 mothers and 25 fathers) (M = 44, SD = 1) 224 adolescents (Age Range = 10-13)	The Emotions as a Child Scales (EAC)	Emotion regulation (Difficulties in Emotion Regulation Scale: DERS) Family conflict (Family Conflict Scale: FCS). Behavior problems and hyperactivity (Strengths and Difficulties Questionnaire: Goodman, 1997)	Family conflict (Family Conflict Scale: FCS). Behavior problems and hyperactivity (Strengths and Difficulties Questionnaire: Goodman, 1997)	TINT produces significant improvements in the difficulties of parental impulse control and the socialization of emotions. It also produces a significant reduction of family conflicts and externalizing problems of young people.
Gregl, A. et al. (2014). [46]	97 children diagnosed with specific language impairment (SLI) and their mothers.	Emotional Skills and Competence Questionnaire - 45 (ESCQ-45)	Internalizing and externalizing problems (Child Behaviour Checklist: CBCL;	Development (Brunett-Lezine) Cognitive evaluation	Lower emotional competence in mothers of children with specific language

	(Age range of children= 3,9 – 7,3)		Caregivers-teachers report: C-TRF).	(Wechsler intelligence test: WISC-IV; Leiter's intelligence test, and Raven's colored progressive matrices for children: CPM)	deficiencies. Mothers in clinical and no clinical samples differed in their ability to express emotions, while there was no statistically significant difference in their ability to recognize and manage emotions. Lower emotional regulation in mothers was related to greater emotional reactivity, anxiety and depressive manifestations in children with SLI, as well as to their understanding of speech.
Duncombe, M. E. et al. (2012). [47]	373 families of children with behavioral problems. (Age range of children = 5-9. M = 7.02, SD = 1.05).	The Maternal Emotional Styles Questionnaire (MESQ; 32) Self-Expressiveness in the Family Questionnaire short form (SEFQ; 33)	Parenting skills (The Alabama Parenting Questionnaire: APQ; 30) Parents' mental health (The Depression Anxiety and Stress Scales: DASS-21)	Behavioral problems (The Eyberg Child Behavior Inventory: ECBI; 36). Children's emotion regulation (The Emotion Regulation Checklist: ERC;40)	An inconsistent parenting style, negative emotional expression, and mental health problems in parents increase children's behavioral or emotional regulation difficulties. Children's emotional regulation influences the characteristics of parenting style.
Finzi-Dottan, R. et al. (2011) [48]	151 parents (71 children diagnosed by ADHD and 80 non-clinical sample)	The emotional intelligence inventory (EIS)	Parent's stress (21-item post-traumatic growth inventory: PTGI) Social support (Multidimensional scale of perceived social support: MSPSS). Parenting skills (parenting sense of competence scale: PSCS).		

			Cognitive parenting skills (Cognitive Appraisal Questionnaire for parenthood: Folkman and Lazarus, 1985)		
Costa, S. et al. (2018). [49]	152 adolescents (75 boys and 77 girls) and their families. Children age range = 16-17 (M = 16.45; SD = 0.50).	The Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF).	Parental autonomy support (Perceived Parental Autonomy Support Scale: P-PASS)	All the questionnaires administered to the families were also answered by the children	There is a positive association between Parents' EI and the support for the autonomy and the psychological control of the child. Adolescent EI was predicted by the maternal EI trait, the adolescent's perception of parental autonomy and the psychological control exercised over them. The mediators between adolescent EI and paternal EI seem to be the adolescent's perception of parental autonomy and the child's psychological control.
Manicacci, M. et al. (2019). [50]	275 participants, divided into two groups: a) mothers of children with Autism syndrome disorder -ASD (n = 136) and b) mothers of children without ASD (n=139).	Schutte Self-Report Emotional Intelligence Test	Coping styles (Way of Coping Checklist: WCC) Resilience (Resilience Scale: RS)		There is no significant difference between EI of mothers with ASD and without ASD. Mothers of children with ASD showed greater resilience capacity than mothers of children without ASD.

Table 2: Summary of articles identified and selected.

3.1 Type of studies

The studies included in the systematic review had a quantitative approach. Of the eight articles reviewed, five of them were descriptive cohort studies based on a correlational methodology. The study by Havighurst et al. (2015) [45] was a randomized clinical trial, the one by Gregl et al. (2014) [46] was a matched pairs block design, and the study by Maniacci et al. (2019) [50] used two unmatched comparison groups.

3.2 Samples included in the studies

In all the sample populations in the studies reviewed, parental EI was evaluated, regardless of whether their children were also evaluated. The samples selected in the studies reviewed may be divided into three groups. One group made up of those that evaluated parental EI in the general population. These studies were based on parents and children with no mental health diagnosis [43, 45, 49]. The second was studies that included parents from the clinical population in the sample. Four studies evaluated EI of parents whose children had a mental health diagnosis: the study by Gregl, A. (2014) [46] assessed EI in parents of children diagnosed with SLI; Duncombe, M. (2012) [47] in parents of children with behavioral problems; Finzi-Dottan, R. (2011) [48] in those with children diagnosed with ADHD; and Manicacci, M. et al. (2019) [50] focused on the study of mothers of children diagnosed with ASD. This last is the only one which focused exclusively on the mother. Finally, only the study by Trigueros et al. (2020) [44] included a sample of parents diagnosed with mental health disorders: schizophrenia, schizoaffective disorder, borderline personality disorder and bipolar disorder.

3.3 EI evaluation instruments in the selected studies

The articles selected all evaluated EI of the parents included in the study. However, different instruments were used for it. Following the classification by Etremera (2004), most of the measurement instruments used in the articles in the review were questionnaires or self-reports. The specific questionnaires used were: the *Trait Meta-Mood Scale (TMMS-24)* [51], the *Emotional Skills and Competence Questionnaire - 45 (ESCQ-45)* [52], *Self-Expressiveness in the Family Questionnaire short form (SEFQ; 33)* [53], *The emotional intelligence inventory (EIS)* [54], the *Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF; Petrides & Furnham, 2006)* [55] and the *Schutte Self Report Inventory (SSRI)* [56].

Three instruments based on outside observation were also used, in this case measures children's reports of their parents' EI. These measures were: the *Perceived Emotional Intelligence Scale-24 (PTMMS-24)* [51], the *Emotions as a Child Scales (EAC)* [57] and the *Maternal Emotional Styles Questionnaire (MESQ; 32)* [58]. None of the studies used performance instruments for measuring EI.

3.4 Main results of the selected studies

The articles reviewed addressed positive correlation between parents' EI and better mental health of their children. Two studies in the bibliography reviewed both showed that EI was a protective factor: the study by Sánchez-Núñez et al. (2020) emphasized that high perceived EI in family members had a direct effect on the mental health of the children [43]. Trigueros, R. et al. (2020) [44] concluded that high EI in parents

diagnosed with a severe mental illness was a protective factor against self-stigma and prevention of burnout. Two other studies associated parenting styles and EI, with two-way repercussions between parents and children. Duncombe et al. (2012) [47] demonstrated that an inconsistent parenting style and parents' negative emotional expression increased their children's behavioral problems or emotion regulation. Parenting style was also influenced by their children's emotion regulation. Meanwhile, Costa et al. (2018) [49], confirmed a positive association between parents' high EI and support of autonomy and psychological control of the minor. They also highlighted that EI of adolescents was predicted by maternal trait EI. Studies done with parents of children diagnosed with a disorder (SLI, ADHD, and ASD) all showed an association between parental EI and their children's symptoms. The study by Gregl et al. (2014) with a group with SLI was the only one that included only mothers. Less competence in emotion expression was demonstrated than with mothers of children without SLI. They also demonstrated more emotional reactivity and internalizing problems in these children, which were associated with worse emotion regulation by their mothers [46].

The study by Finzi-Dottan et al. (2011) with children diagnosed with ADHD showed repercussions on higher perceived stress of parents during child-raising [48]. In a population diagnosed with ASD, Manicacci et al. (2019) highlighted the capacity for resilience of mothers of children who had ASD compared to mothers of children who did not [44]. Lastly, as shown by Havighurst et al. (2015), EI training based on emotion education is possible. Their study showed the positive effects of increasing parents' impulse

control and parental socialization of emotions. Furthermore, this training reduced their children's externalizing problems [45].

4. Discussion

This study was a systematic review of the EI construct in parents related to some aspect related to the mental health of their children. Eight articles published from 2009 to 2020 that studied some relationship between parental EI and its impact on their children's development were analyzed. The samples were heterogeneous and included clinical and general populations. The measurement instruments used by the various studies also differed in theoretical basis and evaluation method. The influence between variables is undeniable, but requires more study to be able to precisely determine the direction and consequences of this interaction.

4.1 The influence of parental EI on their children's mental health

We started out from evidence suggesting that high EI is associated with better mental health [59], better social problem solving [60], better capacity for social interaction [61] and better performance at school and work [62]. The role parenting exerts on these aspects has been the subject of several different studies [30, 63]. There is evidence of the relationship between parents' EI and their children' [64].

Parental influence on their children's emotional competencies even begins to appear in the first months of life [65-69]. Emotional skills acquired later depend on those acquired in the first years of life, and those abilities are the foundation for future learning of

strategies enabling better general adaptation to the world.

Based on the studies reviewed, it may be concluded that parental EI has an important role in their children's mental health, along the same line as previous studies showing that emotional development of parents has an impact on the emotional life of their children [70-72]. Furthermore, the review of the study by Havighurst et al., (2015) [45] showed that intervention in parents' EI can generate positive effects on the mental health of their children by improving parents' impulse control problems and emotion management in social interaction, decreasing family conflicts and youths' externalization problems.

4.2 Limitations of the studies included in the review

As mentioned above, the EI evaluation tests in the studies were quite different. However, all of the studies evaluated the construct with self-reported tests (such as the TMMS-24), even though some, in particular, Havighurst et al. (2015) [45] and Sánchez-Núñez et al. (2020) [43], also included other-reported measures. None of them included a test of skill, such as the *Mayer and Salovey and Caruso Emotional Intelligence Test (MSCEIT)* in their EI evaluation. The MSCEIT was designed to evaluate emotional intelligence understood as an ability. It evaluates answers representing real aptitudes for solving emotional problems. It is the first measure that provides valid reliable scores in each of the four main areas of emotional intelligence following the Mayer and Salovey model: 1) Perceiving emotions, 2) Facilitating thought using emotions, 3) Understanding emotions and 4) Emotion management. It also

provides a total emotional intelligence score, and scores in two areas, experiential and strategic, and in each of the specific tasks in the test [73].

Previous studies have shown the ability of some of the subscales and of the total MSCEIT for discriminating between clinical groups evaluated, unlike the TMMS-24. This suggests that in spite of the proven validity of the TMMS-24 for evaluating Perceived Emotional Intelligence in a nonclinical population, its use seems less recommendable for clinical samples [74].

The scarcity of studies and heterogeneity of the populations must be added to the limitation of the variety of measurement instruments. Moreover, it is not possible to establish causal relationships between EI of parents and their children's characteristics. None of the studies suggest a follow-up study of these relationships at different moments over time.

Most of the studies did not analyze the differential effect between the influence of EI of mothers and fathers. The study by Gregl et al. (2014) [46] included a sample made up only of mothers. Only the study by Costa et al. (2018) [49], noted that mothers' EI could predict adolescent EI. Another limitation is the exclusion of articles published in languages other than English and Spanish.

4.3 Future lines of research

The scarcity of studies found suggests the need to widen knowledge in this direction. We think it is important to analyze the mechanisms involved in the relationship between parental EI and better mental health of their children. It would be important for studies to go deeper to enable the direction of the

association or causality between different variables to be established. Future studies could focus on evaluating how this relationship is maintained over time, on parent susceptibility to training in facets of their EI, and their association with protective factors of their children's mental health.

5. Conclusions

Summarizing, the quality of the relationship between parents and children is determinant for the healthy development of personality, and it is the parents who exert the most influential socializing function and who lay out the child's current and future adult emotional and relational path. Constructs such as children's EI, aspects of parenting and upbringing, and psychopathology of parents have been associated with children's mental health. There are very few studies that show a relationship between the EI of parents and the mental health of their children. Future lines of research are needed to be able to determine the type of interaction between these two variables. Among the implications of this review for clinical practice, we emphasize the need to include intervention with parents that works on their own emotional skills, thereby increasing their EI.

Conflicts of Interest

The authors declare no conflict of interest.

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