



JÖNKÖPING UNIVERSITY

*School of Education and
Communication*

The Effectiveness of Child-Centered Play Therapy in reducing externalizing behavior problems and improving socio- emotional Functioning of Children

A Systematic Literature Review

Mahsa Vazifehghelichi

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Supervisor

Mats Granlund

Examinator

Name

ABSTRACT

Author: Mahsa Vazifehghelichi

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Externalizing behavior problems in children reflect negative actions toward the external environment and can have detrimental consequences for their academic, social, and mental well-being. These actions range from breaking the rules to exhibiting extremely disruptive and aggressive behaviors, and they frequently come with issues with social behavior and emotional control. Socio-emotional competencies, such as empathy and emotion regulation, serve as protective factors against behavior problems, enabling children to effectively manage their emotions and behaviors. This study focuses on examining the effectiveness of child-centered play therapy (CCPT) in reducing externalizing problems and enhancing socioemotional competencies in children aged 3 to 12. CCPT utilizes play as a natural language to establish a therapeutic relationship between play therapists and children. This relationship provides a safe and accepting environment for children to express themselves and develop self-regulation skills. By accepting responsibility for their actions, children can progress toward self-actualization and improved behavior management. To investigate the effectiveness of CCPT in reducing externalizing behavior problems and increasing socio-emotional competencies in children, a systematic literature review was conducted, considering studies published over the last decade. Four databases were analyzed, and six articles met the predetermined inclusion criteria. While the data extracted from the included articles demonstrated promising results regarding the effectiveness of CCPT in reducing externalizing problems, the impact of CCPT on enhancing socioemotional competencies was not clear. It is important to acknowledge the limitations of this study, including the scarcity of research in this field and small sample sizes, which impede the generalization of the results to all populations. However, this study identified a research gap concerning the effectiveness of child-centered play therapy in addressing externalizing problems and children's social and emotional functioning. Future research is required to have a more comprehensive picture of how CCPT reduces externalizing problems and what abilities it gives children to cope with their problems; otherwise, it is not possible to consider CCPT as an evidence-based intervention for externalizing problems and widely use it for all children based on current data in the literature.

Keywords: play therapy, child-centered play therapy, externalizing behavior problems, socio-emotional competencies

Postal address

Högskolan för lärande
och kommunikation (HLK)
Box 1026
551 11 JÖNKÖPING

Street address

Gjuterigatan 5

Telephone

036-101000

Fax

036162585

Table of Content

I Table of Contents

- 2 Introduction 1
- 3 Background 3
 - 3.1 Externalizing behavior problems..... 3
 - 3.2 Socioemotional competencies..... 4
 - 3.3 Play therapy..... 5
 - 3.4 Child-centered play therapy..... 6
 - 3.5 Implementation framework..... 7
 - 3.6 Theoretical framework And Rationale 9
- 4 Aim 11
 - 4.1 Research questions:..... 11
- 5 Methods 11
 - 5.1 Research design 11
 - 5.2 Search strategy 12
 - 5.3 Selection process..... 13
 - 5.4 Inclusion and exclusion criteria..... 12
 - 5.5 Title and abstract screening 14
 - 5.6 Full-text screening 14
 - 5.7 Quality assessment 16
 - 5.8 Data extraction..... 16
 - 5.9 Data analysis 17
 - 5.10 Ethical considerations 17
- 6 Results 18
 - 6.1 Characteristics of Selected Studies 18
 - 6.2 Characteristics of target groups 18
 - 6.3 Respondents and measurements 20

6.4	implementation of CCPT	21
6.5	Outcomes of dependent variables.....	22
7	Discussion	24
7.1	Limitations	29
7.2	Methodological Issues	29
7.3	Future research.....	30
8	Conclusion.....	31
9	References	32
10	Appendices	42

2 Introduction

The National Institute for Health and Clinical Excellence [NICE] (2013) reports that behavioral disorders are prevalent among children and are the most common type of mental health disorder. In particular, externalizing behavior problems, which encompass a wide range of symptoms that are disturbing to others, are the most frequently occurring mental health issues (Denham et al., 2000). Externalizing behavior problems in children are characterized by negative and hostile behavior toward their environment and others (Liu, 2004). Denham et al. (2000) describe externalizing symptoms as a range of negative behaviors including hostile defiance, destructiveness, temper tantrums, impulsivity, and low frustration tolerance. Externalizing problems can cause significant impairment in peer relationships and academic performance, leading to poor outcomes in adulthood (Crnic et al., 2004). Thus, their difficulties in developing relationships cause a lack of opportunities for them to learn social and emotional skills. Meany-Walen & Teeling (2016) expressed that external behaviors could indicate more profound and severe emotional issues for a child, which may eventually lead to more significant personal and social challenges like substance abuse, leaving school prematurely, and engaging in criminal activities.

According to the literature, behavior problems have emotional aspects, and emotion regulation is associated with behavioral functioning (Denham et al., 2000). Batum and Yagmurclu (2007) define self-regulation as the ability to control emotional and behavioral responses, which includes regulating emotions, maintaining and promoting emotions, and behavioral regulation. These skills encompass a variety of social-emotional strengths, such as empathy, social competency, problem-solving ability, self-awareness, cognitive-behavioral self-control, personal accountability, and other positive attributes (Merrell et al., 2010). Social-emotional competencies in childhood are associated with children's capacity to excel and flourish as well as academic achievements (Denham et al., 2012). Furthermore, Dodge et al. (2006) highlight that social-emotional abilities such as empathy, self-control, and social competence may act as protective factors against negative behaviors such as aggression and violence, as well as general functional impairment.

Child-Centered Play Therapy (CCPT) is an age- and development-appropriate and adaptive counseling intervention for children ages 3–12 that facilitates the child’s path toward socially well-adjusted self-actualization through the child’s self-expression and processing of experience in a therapeutic relationship featuring empathic attunement, unconditional positive regard, and genuineness (Cochran & Cochran, 2017; Landreth, 2012). By applying CCPT principles, play therapists establish a secure space for children to investigate and express their emotions and exercise coping mechanisms, which promote a sense of self-efficacy and self-acknowledgment (Hall, 2019). Hence, children participating in CCPT benefit from the autonomy and control they are granted, which fosters the promotion of adaptive coping skills, opportunities for exploration, decision-making, and effective problem-solving strategies in a non-hostile way (Hall, 2019).

Overall, considering the negative consequences of externalizing behavior problems and socioemotional deficits in childhood for the child, family, and society, and also the correlation between behavior problems and social and emotional competencies supported by the literature, there is a need for implementing appropriate early interventions for these children. According to Ray et al. (2013), the CCPT’s theoretical concepts suggest that children’s improvement through the CCPT leads to a decrease in harmful ways of communicating or behaving. Furthermore, using play as an instrument can be a proper way to implement early childhood interventions. Although CCPT appears to be effective in addressing emotional and behavioral problems in children, it is frequently not included in lists of evidence-based treatments. (Parker et al., 2021). Due to the significance of ensuring the efficacy of treatments for clients, it is necessary to conduct further research to assess the effectiveness of CCPT in reducing externalizing problems in children. One means of investigating the topic is to review previous research. Hence, this study employed a systematic literature review of the effectiveness of CCPT in reducing externalizing problems and increasing socioemotional competencies in children.

3 Background

3.1 Externalizing behavior problems

The term "externalizing behavior problems" encompasses a category of problematic behaviors that are exhibited by children in their outward actions and reflect a negative impact on the external environment due to the child's behavior (CDC, 2022; Liu, 2004). According to the research literature, these behaviors include aggression, non-cooperation, inattentiveness to rules, hyperactivity, defiance, conduct problems, and destructive and disruptive behaviors (Liu, 2004; Olivier et al., 2020; Petersen & LeBeau, 2021). According to Liu (2004), the severity of these behaviors can range from difficulty following structures to physically acting out through punching and shouting. As a result, children who exhibit these behaviors often struggle with communication within their family, peer group, and with their teachers. As stated by Petersen and LeBeau (2021), externalizing problems impose significant costs on families, the healthcare system, and the educational system. Specifically, within the educational setting, these problematic behaviors impede the learning and academic achievements of the child with exhibiting problems; they can also cause disruptions in the classroom that negatively affect the education of other students (Petersen & LeBeau, 2021). Furthermore, childhood externalizing issues can have detrimental effects on a child's later development. Behavioral issues in childhood are indicative of subsequent conduct problems and severe mental health problems (Cooper et al., 2009); more concerning, studies indicate that they can lead to delinquent behaviors, school dropout, violence, drug abuse, and antisocial personality disorder in adolescence and even adulthood (Carter et al., 2004; Petersen & LeBeau, 2021).

Studies found extrinsic and intrinsic causes for these behaviors (Cooper et al., 2009); they can have a biological cause, be related to a vulnerable phase of development, or be the result of adverse childhood experiences, trauma, negative familial experiences, and socio-economic factors (Delfos, 2004). Accordingly, children with or without a specific disorder diagnosis may demonstrate significant externalizing behavior issues. In other words, children with disruptive behaviors do not require a diagnosis of a behavior disorder in order to receive therapy. Concerning the long-term consequences of childhood behavior problems that can be costly for individuals and society, it is crucial to conduct research aimed at evaluating the effectiveness of interventions designed to address such issues

(Bratton et al., 2005). There are various treatment approaches for reducing externalizing behavior problems depending on the severity, context, and roots of these problematic behaviors. In accordance with Eyberg et al. (2008), a review of the literature about effective interventions for children with externalizing problems supports parent-training and child-training interventions for reducing externalizing problems in children; however, it is important to note that not all children will respond equally to such interventions, as individual differences and specific factors can influence treatment outcomes. Some children may require additional or alternative interventions tailored to their unique needs. For instance, in some cases with highly disruptive behaviors and children struggling with severe emotional issues, it is not possible to train the child within a strict framework. Moreover, in some cases, it is not possible to train parents who are not interested in being involved in the intervention, can't tolerate a child's tantrums in family-based interventions, or even don't have enough time to follow the structures. In these situations, it is important to find a more flexible intervention that focuses on the child in the first step; however, it is crucial to assure the effectiveness of such treatments.

3.2 Socioemotional competencies

Socioemotional competence encompasses various adaptive assets crucial for children to be successful in their communications (Merrell et al., 2011); these characteristics include empathy, prosocial behaviors, self-regulation, attempting to communicate with other children, solving interpersonal problems, engaging in play groups with peers, and emotion-regulation in unpleasant situations (Joseph & Strain, 2003; Merrell et al., 2011). Social-emotional competencies are an essential predictor of children's social and educational achievement and well-being (Denham et al., 2012; Leung, 2014). According to previous studies, children's early social-emotional experiences, including relationships with family, peers, or teachers, impact their ability to form later relationships and serve as a foundation for learning (Carter et al., 2004). A complex interaction of emotions, thoughts, and behaviors is required to develop and sustain healthy friendships (Joseph & Strain, 2003). Socioemotional abilities such as empathy and self-regulation could be protective qualities against behavior problems and facilitate child functioning adjusted to their developmental level (Cheng & Ray, 2016; Dodge et al., 2006; Ray et al., 2013). Hence, defi-

cient socioemotional functioning in children is associated with withdrawal, refusal to participate, poor relationships with parents, teachers, and peers, academic failure, law-breaking, and disruptive and aggressive behaviors (Ray et al., 2013). These difficulties can be challenging for these children, their teachers, caregivers, and classmates, and they are also the main foundations for many mental health issues. As children's status in socio-emotional competencies determines their success or failure in school or other social contexts, the insufficiency of treatments for children's deficits in this domain has severe repercussions; therefore, the literature highlighted the importance of research in finding appropriate treatments for these problems.

According to a large body of research, promoting experiences of empathy and creating a setting conducive to applicable emotional expression are recommended to enhance a child's empathy, self-regulation, and socioemotional functioning (Ray et al., 2013). CCPT is specifically designed to help children increase empathy and self-regulation. In this intervention, the therapeutic relationship increases the child's self-regulation by empathic responding, limiting the setting, delegating responsibility to the child, and facilitating emotional expression (Ray et al., 2013).

3.3 Play therapy

Due to their level of cognitive development, children typically have a more limited ability to express emotions, identify them, and communicate using language than adults. As a result, play becomes their natural way of communicating. Play activities give children the opportunity to express their thoughts, feelings, and emotions easier, so using play as a therapeutic method could enhance children's self-expression abilities (Hall, 2019; Kottman, 2014). Play therapy is defined by the Association of Play Therapy (APT, 1997) as "the systematic application of a theoretical model to the establishment of an interpersonal process in which trained play therapists use the therapeutic powers of play to assist clients in preventing or resolving psychosocial difficulties to promote optimal growth and development". Therapeutic powers refer to the ability of play to facilitate desired change in a child and the parts of the treatment that play originates, facilitates, or enhances (O'Connor et al., 2015). It is supported by the literature that the outcomes of research in play therapy show effectiveness in play therapy with effect sizes ranging from medium to large (O'Connor et al., 2015). Play therapists assist children with behavioral, emotional, and traumatic issues and promote

the development of their coping mechanisms through the interpersonal procedures of the treatment (Porter et al., 2007). Generally, the aim is to promote children's emotional and social functioning to a level commensurate with their age level so that they can resume their appropriate developmental trajectory (VanFleet et al., 2010).

There are different types of play therapy designed for specific childhood problems. The therapist should evaluate the context and the expected results of the treatment when selecting the most effective play therapy strategy (Porter et al., 2007). According to VanFleet et al. (2010), there are three main approaches to play therapy: directed or organized play therapy, nondirective play therapy (also known as CCPT), and family play therapy. The function of play therapists varies from directive to non-directive based on the developmental perspectives of different types of play therapy.

3.4 Child-centered play therapy

As a popular approach to childhood mental health counseling, child-centered play therapy (CCPT) is a non-directive intervention that emphasizes the therapist-child relationship as the initial therapeutic agent (Landreth, 2012; Parker et al., 2021; Ray, 2011). Virginia M. Axline established the CCPT before 1947 based on her assumption that "play is the child's natural medium of self-expression (VanFleet et al., 2010, p. 20); she adopted Carl Rogers' original nondirective therapy theory to develop the CCPT (VanFleet et al., 2010). This theory claims that individuals have within themselves the capacity to be self-directive and grow in a positive and healthy direction when the proper conditions are provided (Rogers, 1951). According to Landreth (2012, p. 57), Rogers (1951) hypothesized that every child exists at the center of a constantly changing world of experiences. Following Rogers's (1951) client-centered theory, children intrinsically need to experience acceptance in their relationships, and they develop their self-concept through their life experiences; hence, their behavior is coherent with their self-perception. The objective of CCPT is for play therapists to understand the children's viewpoints and values and accept the child rather than imposing optimism or solutions. The play therapist builds an accepting and caring relationship with the child through play, using unconditional positive respect, empathy, and reflections on the child's feelings and behaviors (Burgin & Ray, 2022). In this approach, the child decides the play's theme, material, process, and pace instead of

the play therapist. Regardless of how important these choices appear to be, the child is encouraged to embrace self-responsibility and identify his abilities (Landreth, 2012). This does not imply that the role of the play therapist is to be submissive. By fostering a supportive and welcoming relationship with the child, CCPT therapists assist the child in self-exploration, the identification of emotional experiences, and the practice of self-control (Landreth, 2012).

For establishing this therapeutic relationship, play therapists use therapy skills including tracking, reflection of content, reflection of feelings, and limit setting (O'Connor et al., 2015). According to VanFleet et al. (2010), Axline (1947) determined eight principles as the framework for CCPT therapists. These principles include: (1) establishing a warm and friendly relationship with the child; (2) accepting the child unconditionally; (3) developing a secure and permissive environment that encourages the child's exploration and emotional expression; (4) concentrating on and reflecting on the child's emotional expression in a way that allows the child to develop insight and increase his or her self-awareness; (5) Respecting the capacity for problem-solving of the child, (6) following the child's lead and avoiding directing the child's action (the child must be completely responsible for his or her choices); (7) never attempting to speed up the session of therapy and allowing sessions to progress gradually at the child's pace; (8) Setting limits that are only essential for adjusting the therapy to reality and making the child aware of his or her responsibility in the therapeutic process. According to Ray et al. (2013), the CCPT's theoretical concepts suggest that children's improvement through the CCPT leads to a decrease in harmful ways of communicating or behaving and an increase in the child's sense of responsibility for their actions. Considering the literature on CCPT, the efficacy of this intervention in developing prosocial interactions, social skills, and self-regulation is supported; based on this, the study literature strongly suggests that this intervention is useful for disruptive behaviors (Ray et al., 2007).

3.5 Implementation framework

While implementing CCPT, professionals must follow the guidelines for the treatment framework. The existing guidelines describe general factors that CCPT therapists must consider about the physical setting (the playroom), the materials, the therapeutic relationship, and treatment fidelity considerations. However, there is no manual describing the

steps or procedures of this intervention. While research shows that play therapy effectively treats children's difficulties, it seems that the length of treatment influences play therapy outcomes (Bratton et al., 2005). Research shows that 12 or fewer play therapy sessions and daily scheduling for populations of children have been helpful (Landreth, 2012). Even though play therapy can be effective after just a few sessions, especially in urgent situations, studies demonstrate that the benefits of play therapy become more pronounced with a higher number of sessions, up to about 35 sessions, as highlighted by Bratton et al. (2005). Accordingly, Landreth (2012) stressed the importance of adjusting the intervention plan based on the child's specific circumstances and progress. Therefore, the play therapist may need to modify the frequency and quantity of the sessions according to the child's situation and remain flexible and adaptable to the child's changing needs throughout the treatment period.

There are two approaches to CCPT implementation. Based on different situations, childhood difficulties, and different aims of intervention, play therapists perform either Child-Centered Individual Play Therapy (CCIPT) or Child-Centered Group Play Therapy (CCGPT). Although both approaches highlight the significance of play as the treatment instrument, CCGPT comprises a group of children, and CCIPT involves only one child and a therapist. Individual play therapy allows the therapist to have more control over the therapy by deciding how to set up the room and respond to the child, resulting in more predictable interactions between the therapist and the child (Ray, 2011). In contrast, in CCGPT, the therapist must be prepared to deal with children's interactions that they cannot control, which requires advanced skills. According to Ray (2011), group play therapy can lead to difficult experiences and self-doubts for the therapist. The therapist may experience tensions between maintaining the required therapeutic mindset and dealing with concerns such as noise or mess levels. Furthermore, the therapist may feel left out or lose control of interactions when the children start serving each other's needs (Ray, 2011; O'Connor et al., 2015).

This review focuses on the individual implementation of CCPT because, first, the literature stresses that CCGPT may not be appropriate for children with aggressive behaviors, particularly if they are hostile or aggressive toward each other (Ray, 2011; Ray & Cheng, 2018). When working with children who have externalizing behavior problems, the therapist may have less control over the group setting, find it challenging to reflect on the

behaviors of all children in the group, and be unable to sustain the framework of CCPT (Ray, 2011). Second, there is very limited literature on group play therapy since child-centered group play therapy is not widely utilized. Consequently, it is unclear what processes lead to changes in each child. It can be challenging to comprehend the process of a rarely utilized intervention (Ray, 2011). Third, regarding the literature, there are very few studies specifically about the effect of CCGPT on behavior problems, which were not appropriate for the aim of this study. Additionally, they used different structures for implementing CCGPT, which may threaten the fidelity of the intervention. Hence, this review will focus on child-centered individual play therapy and the therapeutic relationship between the CCPT therapist and the child with externalizing behavior problems.

3.6 Theoretical framework And Rationale

To describe the data retrieved from the literature about the effectiveness of child-centered play therapy, it is necessary to apply relevant theoretical frameworks to interpret the results. Initially, it should be noted that child-centered play therapy is established based on the person-centered therapeutic perspective of Carl Rogers (1951) by Virginia Axline (1947) (VanFleet et al., 2010). This theory represents that humans have the capacity for striving toward growth and achieving self-actualization in all stages of life. The relationship is the primary mechanism of change in person-centered theory, wherein the therapist develops a sense of trust in the child's potential to grow toward actualization (Crenshaw and Stewart, 2014). Establishing a robust relationship with the child is highlighted in all sorts of play therapy. The primary objective is to establish a therapeutic setting where children experience a sense of being heard, comprehended, and accepted (Crenshaw and Stewart, 2014). Consequently, by providing an accepting and facilitative relationship through play, children acquire mastery over their surrounding world and experiences and learn how to rely on their own internal evaluation rather than the external negative evaluations they receive from their environment (Swan & Schottelkorb, 2015).

Thus, considering the emphasis of the CCPT approach on the therapeutic relationship between play therapist and child, this paper utilizes attachment theory as a base for interpreting the results. According to Crenshaw and Stewart (2014), the attachment security framework is adaptable to different theoretical approaches and has the capacity to improve their efficiency. CCPT and attachment theory prioritize the importance of building a safe

and nurturing environment, emphasize empathetic understanding, and encourage the exploration of emotions and experiences. John Bowlby (1969) developed attachment theory, which emphasizes the significance of early caregiver-child interaction quality, particularly sensitivity and responsiveness, in shaping important socialization processes throughout the first years of life (Van Zeijl et al., 2006). Attachment relationship experiences in childhood play a key role in children's later abilities to form communication with others and their perception of themselves in relation to the external world (Holmes & Farnfield, 2014). Additionally, Bowlby (1988) found that people who develop secure attachment relationships with their primary caregivers tend to experience more favorable mental health outcomes in comparison to people who have insecure attachments (Crenshaw & Stewart, 2014). Specifically, Pasco Fearon and Belsky (2011) suggest that early attachment may play a conditional role in children's externalizing behavior problems, emphasizing the necessity for additional research to examine the mediating mechanisms involved. When it comes to play therapy, the literature recommends employing children's play primarily as a tool to foster a beneficial emotional attachment between the child and the therapist, thereby gaining insight into the child's inner world (Landreth, 2012). The concept of secured attachment provides a comprehensive framework for understanding the therapist-child interactions, the development of their relationship, and the therapeutic process in the playroom (May et al., 2014). Subsequently, by building an environment of unconditional positive regard, the play therapist fosters the child's self-exploration, self-acceptance, and self-esteem, thereby decreasing disruptive behaviors (Ray et al., 2013). Overall, CCPT aligns with attachment theory by providing opportunities for the child to develop.

Although there are potential advantages to CCPT and theoretical perspectives that can support notions of this approach, additional scientific data is necessary to verify its effectiveness in reducing externalizing behavior issues (Parker et al., 2021). Although current research has shown favorable outcomes, it is important to conduct further studies with rigorous methods to determine the efficacy of CCPT, recognize the populations that may benefit the most, and establish the underlying mechanisms of its positive effects.

4 Aim

Regarding the background and the current research gap, this thesis aims to investigate the effectiveness of child-centered play therapy in reducing externalizing behavior problems and increasing socioemotional competencies.

4.1 Research questions:

- 1) Does CCPT reduce externalizing behavior problems in children?
- 2) Does CCPT increase socioemotional competencies in children with disruptive behaviors?

5 Methods

5.1 Research design

A systematic literature review was performed to accomplish the study's aim of assessing the effect of child-centered play therapy in reducing externalizing behavior problems and enhancing social-emotional competencies in children. A systematic literature review employs a structured approach to identify relevant studies and provide a comprehensive assessment of all published articles that attempt to address a specific research question (Jesson et al., 2011). According to Booth et al. (2022, p. 79), the primary goal of a systematic review is to employ methods that minimize bias and increase accuracy during the selection, evaluation, and synthesis of all relevant studies on a particular topic. It is essential for the search strategy used in a research study to adhere to established principles, be reproducible, and be well-documented (Jesson et al., 2011). Accordingly, this study followed the guidelines established by Jesson, Matheson, and Lacey (2011) for conducting this literature review. The process included identifying relevant articles, assessing their quality, and summarizing the findings using scientific methods. Furthermore, the study utilized the PIO framework's three parameters—Population, Intervention, and Outcome—as a guiding framework (refer to Table 1; Aslam & Emmanuel, 2010).

Table 1

PIO search model

PIO	
Population	Children with externalizing behavior problems
Intervention	Child-centered play therapy
Outcomes	Reduction in externalizing behavior And enhancement in social-emotional competences

5.2 Search strategy

The review was conducted in January 2023 using the following databases: PsycINFO, Psycharticles, Cinhal, and Scopus. The reason for selecting these databases is their association with psychology, health sciences, and health interventions, as well as the relevancy of the results obtained in the free search. The study's search terms were formulated by analyzing multiple abstracts of articles and books aligned with the study's objectives. The study's keywords were then established with the aid of the librarian, and they were converted into search strings that could be used to locate relevant articles. These search strings were designed using Boolean operators (OR, AND, and NOT) and truncations to optimize the search results. The use of Thesaurus and MeSH phrases did not yield any extra articles; therefore, it was decided not to include them in the final search strings. The same search strings were utilized across all databases. However, certain limitations were applied to Scopus to obtain appropriate results due to its vastness (refer to Appendix A for the complete list of search strings). The filters "year of publication" (2013–2023) and "peer-reviewed" were used for all databases. Eventually, the documentation of all searches was done according to the recommendations of Jesson et al. (2011), including the name of the database, the date of the search, applied limitations, and the number of hits.

5.3 Inclusion and exclusion criteria

According to Jesson et al. (2011), predetermined criteria for inclusion and exclusion served as a guide for the article search process. These criteria were established based on the study's objectives, research questions, and Population, Intervention, and Outcome (PIO). Articles were chosen based on the established selection criteria, as presented in Table 2. In order to achieve the research objective of examining the effectiveness of CCPT, this review only included quantitative studies that utilized pre-post measures to evaluate effectiveness. This review also incorporated studies that compared treatment groups to control groups, regardless of whether the control groups received additional treatments or not. To ensure the inclusion of up-to-date articles, only peer-reviewed studies published in English between 2013 and 2023 were considered. In terms of the study population, articles included in this review focused on children between the ages of 3 and 12, as specified in the play therapy manuals (O'Connor et al., 2016). This review excluded children with developmental disorders and intellectual disabilities to maintain consistency within the study. This is because these children can vary greatly in terms of symptom severity, presentation, and co-occurring conditions, which can result in unique treatment requirements that may not be adequately addressed by interventions designed for typically developing children. By excluding children with developmental disorders and intellectual disabilities, the review aimed to ensure that the interventions under investigation were appropriate and effective for the specific population of interest. Considering treatment fidelity, this review excluded studies that employed other interventions alongside CCPT in the target group. Moreover, in accordance with CCPT guidelines, only studies that employed play therapists to administer CCPT were included. Lastly, this review only incorporated studies that evaluated changes in externalizing behavior problems and socioemotional competencies in children with externalizing behavior problems.

5.4 Selection process

The search string was applied to all databases, resulting in 377 articles. The articles were imported into EndNote and subsequently into Rayyan. Rayyan is a web-based tool that was used to identify and resolve duplicates and facilitate the title and abstract screening process. After eliminating 54 duplicates, 323 studies went through the title and abstract

screening process and further levels. A Prisma flowchart was used to document the selection process (see Appendix B).

5.5 Title and abstract screening

One crucial step in systematic reviews is reviewing study titles and abstracts to identify relevant articles for inclusion in the review. This process is time-consuming, but failure to identify relevant studies can impact the validity of the review (Ng et al., 2014). To expedite the process, researchers used the Rayyan app to screen the abstracts and titles of 323 articles. Rayyan is an app that has been shown to be useful in speeding up the selection process for systematic reviews (Ouzzani et al., 2016). After the screening, 17 articles met the inclusion criteria and went through full-text screening.

5.6 Full-text screening

The full-text screening involved a comprehensive assessment of the articles' introduction, method section, and results applying the inclusion and exclusion criteria. After conducting the full-text screening, it was determined that four articles were ineligible for inclusion due to the wrong intervention protocols, which involved combining CCPT with other interventions. Another four articles were excluded due to inappropriate outcomes, while three articles were removed based on incorrect study designs, including two qualitative studies and one review study. Ultimately, six studies, including three randomized controlled trials, two quasi-experimental studies, and one case study, were included at this level. After conducting a thorough screening of the full text of these studies, a hand search was carried out on all 17 articles to ensure that none were missed during the initial search. This led to the discovery of one additional article. Therefore, a total of seven articles were subjected to a quality evaluation.

Table 2*Inclusion and exclusion criteria*

	Inclusion criteria	Exclusion criteria
Population	Children aged between 3-12 Children with externalizing behavior problems (e.g., aggression, hyperactivity, oppositional defiant disorder)	Children with developmental disorders or intellectual disabilities
Intervention	Child-centered play therapy Implemented by play therapists.	Intervention is not clearly described as CCPT. Studies that combine CCPT with another method or intervention
Outcome	Reduction in externalizing behavior problems Increase in socioemotional competencies.	
Publication Type	Peer-reviewed journal/research articles English language Date of publication: 2013- 2023	Book chapters, and grey literature Any other language
Study design	Quantitative	Qualitative

5.7 Quality assessment

Quality assessment was carried out with the aim of reducing bias and examining the methodological quality and validity of studies (Cook et al., 1995; Jesson et al., 2011). In the present study, the quality of the included articles was evaluated through the use of the Critical Appraisal Skills Programme (CASP, 2018, 2021) for randomized controlled trials (RCT) and case studies, and the Joanna Briggs Institute Critical Appraisal tool (JBI, 2017), for quasi-experimental studies. The Critical Appraisal Skills Programme (CASP), had 11 questions, each of which required a rating of "yes," "no," or "can't tell." For both the RCT studies and the case-control study, the articles' quality was divided into three outcome levels of equal measure: low (0–3 yes), moderate (4–7 yes), and high (8–11 yes) based on the number of positive answers (Sánchez-González et al., 2022). Using this method, three studies demonstrated high quality (Bratton et al., 2013; Ray et al., 2021; Wilson & Ray, 2018), while two studies demonstrated moderate to high quality (Ritzi et al., 2017; Phipps & Post, 2020). The checklists used for the quasi-experimental studies had nine questions, with each question receiving a rating of "yes," "no," or "unclear." For the nine questions, the quasi-experimental studies were given a rating of good (≥ 7 yes), medium (4-6), or poor (≤ 3 yes) (Hsu et al., 2021; Karimi et al., 2021). Using this method, one study was deemed to have a good level of quality (Bengwasan, 2023), while another study was excluded from the study because it had poor quality and did not consider factors that jeopardized treatment fidelity and thus was excluded from the study (Cochran & Cochran, 2017). Eventually, a total of six studies that exhibited moderate to high quality were included in the data extraction. Each of the selected articles demonstrated a clear study purpose. Most of the articles provided adequate details concerning their study procedures and methods while also utilizing appropriate research designs based on their aim and research questions (see Appendix C for more details).

5.8 Data extraction

According to the guideline of Jesson et al. (2011), evaluated articles will go through the data extraction protocol in an Excel file (see Appendix D). The relevant data from the included articles were tabulated considering the research questions and aim of this review. The protocol contained eight sections: general article information, theoretical background

and rationale, participants' characteristics, methodology, detailed information about the intervention (such as the duration, frequency, and intensity), characteristics of control groups, relevant outcome measures, outcomes considering the significance and effect size, limitations and strengths of the studies, and the conclusion.

5.9 Data analysis

The extraction protocol was employed to analyze all six articles, and a narrative synthesis approach was used to integrate the findings and answer the research questions. Firstly, participant characteristics were examined to establish the level of externalizing problems across the six studies. To address the first research question, the articles were analyzed to identify any significant reduction in externalizing behavior problems in children, taking into account the effect size and significance level. The second research question was answered by analyzing two articles that specifically focused on social-emotional competencies to determine whether there was an increase in these competencies based on effect size and significance level. To gain a more comprehensive understanding of the effectiveness of the treatment, the duration, intensity, and frequency of implementing CCPT were analyzed in all the studies. In addition, the factors that the authors controlled to enhance treatment fidelity and the treatment protocols they followed were analyzed, and the strengths and limitations of these factors were described.

5.10 Ethical considerations

Despite the absence of direct participant data collection in a literature review, ethical considerations remain an important aspect to be taken into account. Although there are no specific guidelines for ethical procedures in a literature review, it is important to carefully evaluate each included study for ethical considerations and potential biases in its design, data collection methods, results, and publication (Creswell & Creswell, 2018; Suri, 2020). Consequently, a thorough assessment of the ethical procedures employed in each included paper was conducted. All six articles incorporated in the review acknowledged ethical considerations and obtained consent from parents as well as from school administrations or teachers, depending on the specific study context. Video recording of therapy sessions was exclusively conducted upon parental approval. They also ensure that children in the control

group will continue therapy after the study and will not be harmed by being out of treatment. More specifically, three of the studies received institutional review board approval, and two of them attained human subjects' approval.

6 Results

6.1 Characteristics of Selected Studies

In terms of the articles' overview, four studies were conducted in the United States, while one originated in the Philippines and another in Australia. Considering the year of publication, most of the included articles are up-to-date. The majority of the included studies utilized randomized control trials (RCTs) as their research methodology. A total of four articles demonstrated a high level of quality (Bengwasan, 2023; Bratton et al., 2013; Blalock et al., 2019; Wilson & Ray, 2018), while two articles achieved a moderate level of quality that closely approached the high rating (Philipps & Post, 2020; Ritzi et al., 2017).

Table 3

General characteristics of studies

	Authors	Country	Study design
1)	Bratton et al., 2013	USA	RCT
2)	Wilson & Ray, 2018	USA	RCT
3)	Blalock et al., 2019	USA	RCT
4)	Ritzi et al., 2017	Australia	RCT
5)	Bengwasan, 2023	Philippine	Quasi-experimental
6)	Philipps & Post, 2020	USA	Single case-control

6.2 Characteristics of target groups

Based on the findings, it is evident that the articles included in the review had relatively small sample sizes. Except for Bengwasan (2023), all the studies compared their results with a control group. Bratton et al. (2013) compared the treatment group with an active control group that received reading mentoring sessions. Wilson & Ray (2018) and Ritzi et al. (2017) compared the treatment group with a waitlist group that did not receive any form of treatment during therapy. However, the comparison in the study by Blalock et

al. (2019) involved the treatment group, a control group, and a group receiving group child-centered play therapy, which is unrelated to the goal of this study. Thus, this aspect (group child-centered play therapy) of this article (Blalock et al., 2019) was excluded from the current review. In the study conducted by Philipps & Post (2020), which adopted a single case-control design, Student A and Student B underwent the intervention. Student A followed a reversal design, while Student B completed an original multiple-baseline across-students design using a staggered A-B-A approach. The authors compared the results of these two students with those of three other students who did not receive any treatment throughout the study.

Table 4

Target groups

	Studies	Sam- ple size	Age range	Gender	Cause of ex- ternalizing problems	level of exter- nalizing prob- lem	Control group
1	Bratton et al., 2013	54	3 to 4 years	Male & Female	Poverty	Borderline or clinical level (C-TRF)	Y
2	Wilson & Ray, 2018	71	5 to 10 years	Male & Female	Not men- tioned		Y
3	Blalock et al., 2019	56	5 to 10 years	Male & Female	Not men- tioned		Y
4	Ritzi et al., 2017	24	6 to 9 years	Male & Female	Not men- tioned	Borderline or clinical level (TRF & CBCL)	Y
5	Bengwasan, 2023	23	6 to 12 years	Male	Not men- tioned	Borderline or clinical level (TRF & CBCL)	N
6	Philipps & Post, 2020	5	3 to 4 years	Male	Poverty	Highest score (C-TRF)	Y

In order to examine the efficacy of CCPT (Child-Centered Play Therapy) in addressing externalizing problems or disruptive behaviors in children, two studies focused specifically on preschool-aged children (3 to 4 years old), while the remaining studies encompassed an age range spanning from 5 to 12 years. Among the studies included in the analysis, only two of them (Philipps & Post, 2020; Bratton et al., 2013) explicitly addressed the contextual factors or potential reasons underlying externalizing problems. These studies identified poverty as the primary source of disruptive behaviors and deliberately selected low-income regions as their target populations. However, the remaining four studies did not provide any information regarding the characteristics of their samples that could contribute to behavior problems.

In addition, three studies determined a measured level of externalizing problems to include participants in the study. Bengwasan (2023) and Ritzi et al. (2017) included children who displayed borderline or clinical levels of externalizing problems, as measured by the Teacher's Report Form (TRF; Achenbach & Rescorla, 2001) or Child Behavior Checklist-Parent Report (CBCL; Achenbach & Rescorla, 2001). Bratton et al. (2013) utilized the Caregiver-Teacher Report/1.5–5 (C-TRF 1.5–5; Achenbach & Rescorla, 2001) to identify children with borderline to clinical levels of externalizing problems in order to include them in the study. Also, Philipps & Post (2020) only included the five children who had the highest rate of externalizing problems in C-TRF. Conversely, the remaining studies included children with disruptive behaviors who were referred by parents or teachers without specifying a particular measurement tool (Blalock et al., 2019; Wilson & Ray, 2028).

6.3 Respondents and measurements

Research studies have concentrated on gathering information from teachers alone (Bratton et al., 2013) or from both teachers and parents (Bengwasan, 2023; Blalock et al., 2019; Ritzi et al., 2017; Wilson & Ray, 2018). However, one study (Philipps & Post, 2020) used observers to take measurements inside a school setting. When it comes to measurements, the majority of the studies primarily concentrated on assessing externalizing problems. Four articles specifically focused on measuring externalizing behavior problems before and after an intervention. One study solely evaluated the social-emotional competencies of children with disruptive behaviors, while only a single study measured both externalizing problems and social-emotional competencies (see Appendix E for instrument details).

6.4 implementation of CCPT

All of the studies conducted Child-Centered Play Therapy (CCPT) sessions in an equipped playroom within the school setting. The articles implemented play therapy in a short-term format, typically lasting between 8 to 10 weeks with sessions occurring bi-weekly. However, Bengwasan (2023) conducted therapy once a week, resulting in a total of 8 sessions. In a more specific case, Ritzi et al. (2017) implemented an intensive short-term approach, providing therapy over 10 consecutive days with two sessions per day. The majority of the studies followed the play therapy guidelines (Landreth, 2012) and were conducted between 16 to 20 therapy sessions. Still, slight differences in the average number of sessions exist due to changes in the school's schedule and the absence of students.

Based on the recommendation of the literature of CCPT (Ray et al., 2017), this review provided a section in the extraction protocol about treatment fidelity considerations based on the checklist of play therapy and manuals. Apart from Philipps and Post (2020), all the studies employed play therapy under the supervision of a professional in the field. In some studies, supervision was conducted by reviewing video recordings of the sessions, while in other studies, it involved weekly discussions with an available supervisor (see Table 9 in Appendix F). Additionally, in terms of ensuring treatment fidelity, three of the included studies utilized the CCPT skills checklist (Ray, 2011) (Bratton et al., 2013; Philipps & Post, 2020; Wilson & Ray, 2018), and two of the articles employed the CCPT Research Integrity Checklist (Ray et al., 2017) (Blalock et al., 2019; Wilson & Ray, 2018). None of the articles described treatment steps or referred to the structure of the intervention. Nevertheless, they all asserted that they adhered to the CCPT guidelines regarding session protocols, playroom setup, appropriate toys, the role of the play therapist, and a therapeutic relationship with the child. In general, based on the information in the table, Wilson and Ray (2018) and Bratton et al. (2013) demonstrated greater emphasis on treatment fidelity considerations, while Bengwasan (2023) and Ritzi et al. (2017) provided fewer explicit details in this regard.

6.5 Outcomes of dependent variables

Based on the statistical findings from the studies (see Table 6), it was observed that, according to parental reports, there was a significant and substantial decrease in externalizing behavior problems. Additionally, based on reports from teachers, three of the studies indicated a significant reduction in externalizing problems with a large effect size following the treatment. However, in one study (Wilson & Ray, 2018), the teacher's report contradicted the parental reports, showing a non-significant decrease in externalizing problems over time with a small effect size. In the case study conducted by Philipps and Post (2020) of five students in the same classroom, Student A and Student B underwent the intervention, while Students C, D, and E did not. The average scores on the graph indicated a noticeable pattern that suggested a functional relationship between CCPT and externalizing problems for Student A. Moreover, it seemed that when Student A transitioned in and out of the intervention, it had an impact on the externalizing behaviors of the other four male students in the class.

In relation to the second research question, two studies (Blalock et al., 2019; Wilson & Ray, 2018) examined the impact of CCPT on enhancing social-emotional competencies in children with disruptive behaviors. According to the results, there was a statistically significant increase in parents' reported social-emotional competencies, with a large effect size in one study (Wilson & Ray, 2018) and a medium effect size in the other study (Blalock et al., 2019). However, in both studies, the results based on teachers' reports did not show a significant relationship, and the effect size was small. It is worth highlighting that only three studies (Blalock et al., 2019; Bratton et al., 2013; Philipps & Post, 2020) gathered data from respondents who were blinded to the treatment and control groups.

In particular, there were differences in the outcomes of subscales related to externalizing problems and socioemotional competencies when comparing responses from parents and teachers (see Table 7 in Appendix G). When examining the subscales, significant changes with large effect sizes were observed in aggressive behaviors, as reported by both parents and teachers, except in one study (Wilson & Ray, 2018), where teachers reported a non-significant change with a small effect size for aggression. The rule-breaking subscale was examined in two studies (Bengwasan, 2023; Ritzi et al., 2017). According to parental-

Table 5*Outcomes of dependent externalizing problems and socioemotional competencies*

Studies	Sample Size	Dependent variable	Significance	Effect size	Data collection points
Bratton et al., 2013	54	Externalizing problems	Teachers: Significant, $P < .001$	Large, $\eta^2 = .27$	Pre-Med (10 th session) -Post (After one week)
Wilson & Ray, 2018	71	Externalizing problems and Socioemotional competencies	Teachers: non-significant, $p = .413$ Parents: Significant $P = .05$	Teachers: small, $R^2 = .042$ Parents: Large, Cohen's $d = .85$	Pre-Post
Blalock et al., 2019	56	Socioemotional competencies	Teachers: non-significant, $P = .47$ Parents: Significant, $P = .05$	Teachers: small, $\eta^2 = .03$ Parents: Medium, $\eta^2 = .11$	Pre-Post
Ritzi et al., 2017	24	Externalizing problems	Teachers: Significant, $P = .024$ Parent: Significant, $P < .001$	Teachers: Large, $\eta^2 = .135$ Parents: Large, $\eta^2 = .277$	Pre-Post-follow-up (After one week)
Bengwasan, 2023	23	Externalizing problems	Teachers: Significant, $P < .001$ Parents: Significant, $P < .001$	Teachers: Large, $\eta^2 = .831$ Parents: Large, $\eta^2 = .878$	Pre - Post (After one week) - Follow-up (After one month)

-reports, a significant change with a large effect size was observed. However, when considering teachers' reports, one study (Bengwasan, 2023) showed a significant change with a large effect size, while the other study (Ritzi et al., 2017) indicated a non-significant change with a medium effect size for rule-breaking behavior.

In relation to social-emotional competencies, all the reports from teachers indicated a lack of significant change in all subscales over time, as stated in Table 7. However, when considering parental reports, both studies revealed significant changes in the self-regulation subscale, with a large effect size in one study (Wilson & Ray, 2018) and a medium effect size in the other (Blalock et al., 2019). On the other hand, when it came to the empathy subscale, one study (Wilson & Ray, 2018) reported a significant change with a large effect size, while the other study (Blalock et al., 2019) showed a non-significant change with a small effect size. Additionally, only one study examined the social competence subscale, which indicated a non-significant change with a medium effect size based on both parental and teacher reports (Blalock et al., 2019).

7 Discussion

This study used a systematic review of existing literature to assess how effective child-centered play therapy is in reducing externalizing behavior issues and improving socioemotional competencies in children with behavior problems aged between 3 to 12. Despite the limited number of articles obtained from 2013 to 2023, the findings of this literature review indicate that child-centered play therapy (CCPT) could be successful in reducing behavior problems. However, it is important to interpret the results cautiously since only five articles measured disruptive behaviors before and after the intervention. Nonetheless, in one study (Wilson & Ray, 2018), teachers' reports did not indicate a significant reduction in externalizing problems. It is important to note that the authors (Wilson & Ray, 2018) examined the shared variance between subscales of externalizing problems and socioemotional skills assessments to analyze the data. This means that based on the teachers' report, the collective effect of these variables on differentiating between the treatment and control groups is not statistically significant. However, it does not provide information about separate variable changes or differences. Thus, it is not clear if both variables (externalizing

problems and socioemotional competencies) did not change significantly or if one of them had an insignificant change.

In relation to externalizing problems, different scales were employed across studies to measure disruptive behaviors. However, five of the studies incorporated aggression into their scales, and all of them confirmed that child-centered play therapy (CCPT) led to a decrease in aggressive behaviors following the treatment. The Up-to-date findings related to externalizing problems and aggression were consistent with earlier studies, such as the work of Parker et al. (2021), which offered initial evidence supporting the effectiveness of CCPT as a practical intervention for children with behavioral issues, including externalizing problems and aggression. Furthermore, the findings from Ray et al.'s (2009) randomized controlled trial provide supporting evidence that suggests child-centered play therapy (CCPT) holds promise as an intervention for addressing aggressive behaviors in school settings. Moreover, empirical studies have indicated the potential benefits of CCPT for children presenting highly disruptive behaviors (Cochran et al., 2010). Overall, the literature demonstrates the effectiveness of CCPT in reducing externalizing problems, particularly aggressive behaviors. However, it is crucial to acknowledge that the existing body of research in this domain primarily comprises case studies or randomized controlled trials with small sample sizes.

Children displaying behavior problems often demonstrate deficiencies in their social and emotional competencies (Bierman & Welsh, 1997). Moreover, they encounter difficulties in regulating their emotions to effectively resolve challenges within their environment (Esturgó-Deu & Sala Roca, 2019). Accordingly, the literature suggests that interventions should not solely concentrate on reducing aggressive and disruptive behaviors in children but should also focus on the development of their social-emotional competence due to its beneficial role in protecting against various challenges (Domitrovich et al., 2007). Thus, this review investigated the changes in social-emotional competencies following the intervention; however, only one included study focused on both externalizing problems and social-emotional changes (Wilson & Ray, 2018), and one other study only assessed social-emotional competencies among children referred by teachers due to disruptive behaviors (Blalock et al., 2019). It is a matter of inquiry as to why most of the research looking at the effectiveness of CCPT on externalizing difficulties did not focus on positive outcomes or

other changes that occurred during the intervention that resulted in a reduction in externalizing problems. While this potential limitation exists in the studies and there is limited available data in this regard, this paper has chosen to interpret the outcomes related to social-emotional changes resulting from the intervention to evaluate the effectiveness of CCPT. Considering the two included articles about social-emotional competencies, both studies indicated that CCPT was effective in improving social-emotional functioning with a medium to large effect size based on parental reports, but no significant relationship was found based on teachers' reports. Previous studies support the notion that CCPT is effective in the social and emotional aspects of mental health in children with different problems (Ray, 2011). More specifically, the study of Ray et al. (2013) indicated that CCPT could improve clinical levels of impairments in social and emotional behaviors. However, there is a scarcity of literature investigating the concurrent effects of CCPT on disruptive behavior and social or emotional skills. Given the evidence demonstrating the effectiveness of CCPT in reducing externalizing problems and the correlation between behavior problems and social-emotional skills, as well as the fact that parents monitor their child's functioning in a variety of social contexts daily, it is reasonable to assume that CCPT increased social-emotional competencies while decreasing externalizing problems in children. On the other hand, it is not easy to conclude that CCPT was effective in increasing socioemotional competencies, considering the teachers' report. The absence of statistically significant findings from teacher reports aligns with earlier studies (Blalock et al., 2019; Cheng & Ray, 2016). A meta-analysis conducted by Achenbach et al. (1987) involving 119 studies examined how consistent different sources of information were in reporting behavioral and emotional problems in children and adolescents. The analysis revealed differences between teacher and parent reports concerning children's behavior and emotional well-being. However, teachers are crucial resources for understanding how a student is functioning in class and are the most frequent source of referrals for externalizing issues (Bray & Kehle, 2011). As only two articles focused on social-emotional competencies and had small sample sizes, there is a chance that external factors affect teachers' results.

The absence of a controlled environment for teachers to evaluate students with more caution can influence the outcomes (Blalock et al., 2019). In the study by Wilson and Ray (2018), teachers referred kids to the study because of their externalizing behavior issues in class, whereas in the study by Blalock et al. (2019), kids were either referred by parents or

teachers. Teachers who referred students to the study might expect more changes in students' behavior in the class after the treatment, and the fact that teachers mostly referred children to the studies might cause bias in their results. Furthermore, since teachers have multiple responsibilities and must attend to all students, it is possible to theorize that children's behaviors might have been altered in the classroom, although these changes could be challenging to detect due to reduced sensitivity among teachers towards behavioral variations in highly aggressive children (Wilson and Ray, 2018). However, adjusting the duration of interventions to the specific groups of children is essential. Children exhibiting aggressive behaviors, particularly highly aggressive children, may require a longer treatment period beyond the standard 16 sessions to effectively apply their improved behaviors and socio-emotional skills in both home and school environments. Based on the literature, CCPT achieves optimal impact with around 30 to 40 sessions (Bratton et al., 2005). Consequently, conducting CCPT over an extended timeframe for this particular population becomes necessary to establish consistent findings and yield statistically significant results for teachers (Wilson and Ray, 2018). Additionally, both studies indicated that teachers observed a rise in social-emotional competencies when compared to the control group, although the increase was not statistically significant. Therefore, it can be inferred that SEARS may not be sufficiently sensitive to capture teachers' perceptions accurately (Blalock et al., 2019). Lastly, it is important to note that the study conducted by Wilson and Ray (2018) examined the shared variance between aggression, self-regulation, and empathy. Therefore, it is reasonable to assume that if teachers do not perceive a significant change in overall aggression, they may also report a lack of change in self-regulation and empathy. Overall, it is unclear whether CCPT (Child-Centered Play Therapy) effectively improved children's social-emotional skills due to the limited data available and the lack of significant findings in the teachers' report. Further research is necessary to investigate the effectiveness of CCPT in enhancing social and emotional competencies in children with externalizing problems. Additionally, it would be valuable to explore potential differences between parent and teacher reports and the underlying causes for such discrepancies.

Based on the extensive body of research, establishing a supportive environment for expressing emotions appropriately and promoting experiences of empathy are recommended approaches to enhance levels of empathy and self-regulation in children which leads to im-

proved overall functioning (Ray et al., 2013). In terms of the person-centered theory underlying CCPT, it is essential for the play therapist to create a supportive setting and develop a therapeutic bond with the child. All the articles stated that they adhered to the principles of CCPT and utilized skills such as tracking, reflecting content and feelings, and setting limits. The aim was to establish a therapeutic relationship, assist the child in self-regulation, and address behavior issues by allowing them to safely experience and manage their emotions and behaviors within an accepting environment. Hence, it can be assumed that the skills and particular responses employed by play therapists led to enhancing children's self-regulation capabilities. Particularly, when children display aggressive behavior in the playroom, they encounter not only empathetic understanding but also a sense of confidence in their ability to manage their impulses and discover more effective ways of expressing themselves (Wilson & Ray, 2018). Children with aggressive behavior problems have persistent challenges in their relationships due to their outward displays of anger, guilt, shame, and other emotional encounters. As these children continue to face hardships in their relationships, they may internalize negative beliefs toward their self-worth, so they will continue to display behaviors consistent with their negative internal experiences (Dehghani-Arani et al., 2018; Wilson & Ray, 2018). The challenges they experience in their relationships highlight the importance of CCPT for this population as the fundamental principle this approach is to establish relationships with children where they genuinely feel seen, understood, and accepted, regardless of any emotional or behavioral issues. Child-centered play therapy believes that the unconditional acceptance in the therapeutic relationship between the therapist and child is healing, so this relationship is the primary agent of change in children's behavior.

Based on the principles of attachment-based intervention and its relationship to the foundations of CCPT, the play therapist combines sensitivity and reflection to generate a caregiving therapeutic response that has a good chance of meeting the child's relationship needs (Crenshaw and Stewart, 2014). Furthermore, the play therapist adopts a developmental perspective to determine the appropriate course of action. This involves establishing a secure and receptive emotional environment and taking the lead in relational interactions with the child as necessary. This includes providing comfort and security, verbalizing the experience, and supporting the child's exploration of toys, emotions, and thoughts (Crenshaw & Stewart, 2014). This dynamic and complex process of facilitating attachment

security occurs through play therapy sessions and shapes new patterns of emotion and behavior that improve children's self-regulation and their ability to exhibit more appropriate behaviors instead of disruptive behaviors.

7.1 Limitations

This review tried to implement clear inclusion and exclusion criteria and explicit quality assessment to only include studies that are relevant to the aim and research questions with reasonable quality. Regarding the included articles and the aim of this paper, which was to investigate the effectiveness of CCPT, it was a good factor that the majority of the articles were RCT studies and had a clear effect size and significant level with high quality. However, considering the fact that studies in child-centered play therapy were rare, this paper could not draw a generalizable conclusion about the effectiveness of CCPT on social-emotional competencies. Another limitation of this review was that the majority of the studies had small sample sizes and did not provide blinded respondents, which can affect the accuracy of outcomes. In addition, nothing is mentioned in studies about the treatment stages or a clear protocol to see if they follow the same path in therapy sessions or not, which could be because of the humanistic nature and dynamic content of CCPT. The biggest limitation of this study is that it could not explain the causes of behavior problems in children, which can be related to the principles of CCPT. It is necessary to know the reason for the problem in children to plan the appropriate intervention, but only two studies mentioned poverty as the probable reason for externalizing problems and provided support for the relationship between at-risk children in poverty and the theories behind CCPT (Bratton et al., 2013; Blalock et al., 2019).

7.2 Methodological Issues

Systematic literature reviews possess strengths and limitations. The discovery of a research gap regarding the efficacy of child-centered play therapy by this study serves as an example of one strength in its ability to identify fields lacking research. However, this aspect can also serve as a limitation of the study. Due to the limited number of studies, it is impossible to generalize about the efficacy of CCPT for all children with externalizing problems who do not have developmental disorders. Another limitation is that given the time constraints imposed by the master's thesis, the screening and data extraction processes in this

study were carried out by only one researcher, which can increase the potential for errors during the screening procedure. To enhance the reliability of this review, the inclusion of a second person to screen abstracts and extract data would have been beneficial, ensuring increased validity of the results. Consequently, the current study may be exposed to bias and subjectivity, particularly during the quality assessment phase. Furthermore, more psychological databases existed, but not all of them were utilized in this review, which may have caused some publications to be missing. Lastly, it must be noted that although this review aimed to investigate the effectiveness of CCPT, a narrative analysis was conducted for interpreting the results and not a statistical one which could be able to explicitly compare the differences in statistics and analysis.

7.3 Future research

Based on the results of the literature and the theoretical background of child-centered play therapy, this intervention could be effective for reducing externalizing problems in children; however, it is not clear what exact abilities this intervention gives children to cope with their behavioral issues; it is only assumed to increase social and emotional functioning based on parental reports. As there is limited research in this field with small sample sizes, there is a need for more investigation to obtain generalizable conclusions. Also, the initial assessment of the participants is an important stage in implementing the relevant intervention for children (Eyberg et al., 2008), but this important factor seems missing in most of the studies about CCPT. As behavior problems can occur because of many factors like abuse, parenting shortcomings, neurological factors, adverse childhood experiences, etc., it is necessary to provide information regarding the effectiveness of CCPT in different cases. Furthermore, comparing the CCPT group with different groups receiving other evidence-based interventions can increase our knowledge about how effective CCPT could be and if it can replace other interventions for special populations. To enhance the rigor and comprehensiveness of future research, several methodological considerations should be considered. These include implementing accurate assessments before and after the intervention, implementing comparisons between CCPT and other interventions with bigger sample sizes, receiving data from blinded respondents, considering causes of the externalizing problems, and specifically investigating positive functions that replace externalizing behavior problems through the intervention. By addressing these research gaps and consid-

ering these factors in future investigations, studies can determine the stages of child-centered play therapy and the structure of the intervention protocol. These implications are necessary to be able to use CCPT as an independent intervention for children with behavior problems.

8 Conclusion

This thesis provided a systematic literature review to investigate the effectiveness of child-centered play therapy in reducing externalizing problems and increasing social-emotional competencies in children aged between 3 to 12. Despite the limited number of articles discovered in this review over the past decade, it can be concluded that CCPT has a promising effect on reducing behavior problems based on parent and teacher reports. However, since this review couldn't indicate the effectiveness of this intervention in increasing social and emotional competencies, the abilities that CCPT gives children to manage and prevent problematic externalizing behaviors are not clear. In addition, due to the limitations of the studies, generalization of the results to all populations of children is not possible now. In conclusion, the promising results in the literature and the theoretical background of CCPT support the notion that this intervention can be implemented in combination with other interventions like parental consultation (Ray, 2011) or evidence-based interventions based on the specific needs of children to increase children's ability to manage their emotions and show more socially appropriate behaviors.

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10 Appendices

Appendix A

Table 6

Search strings

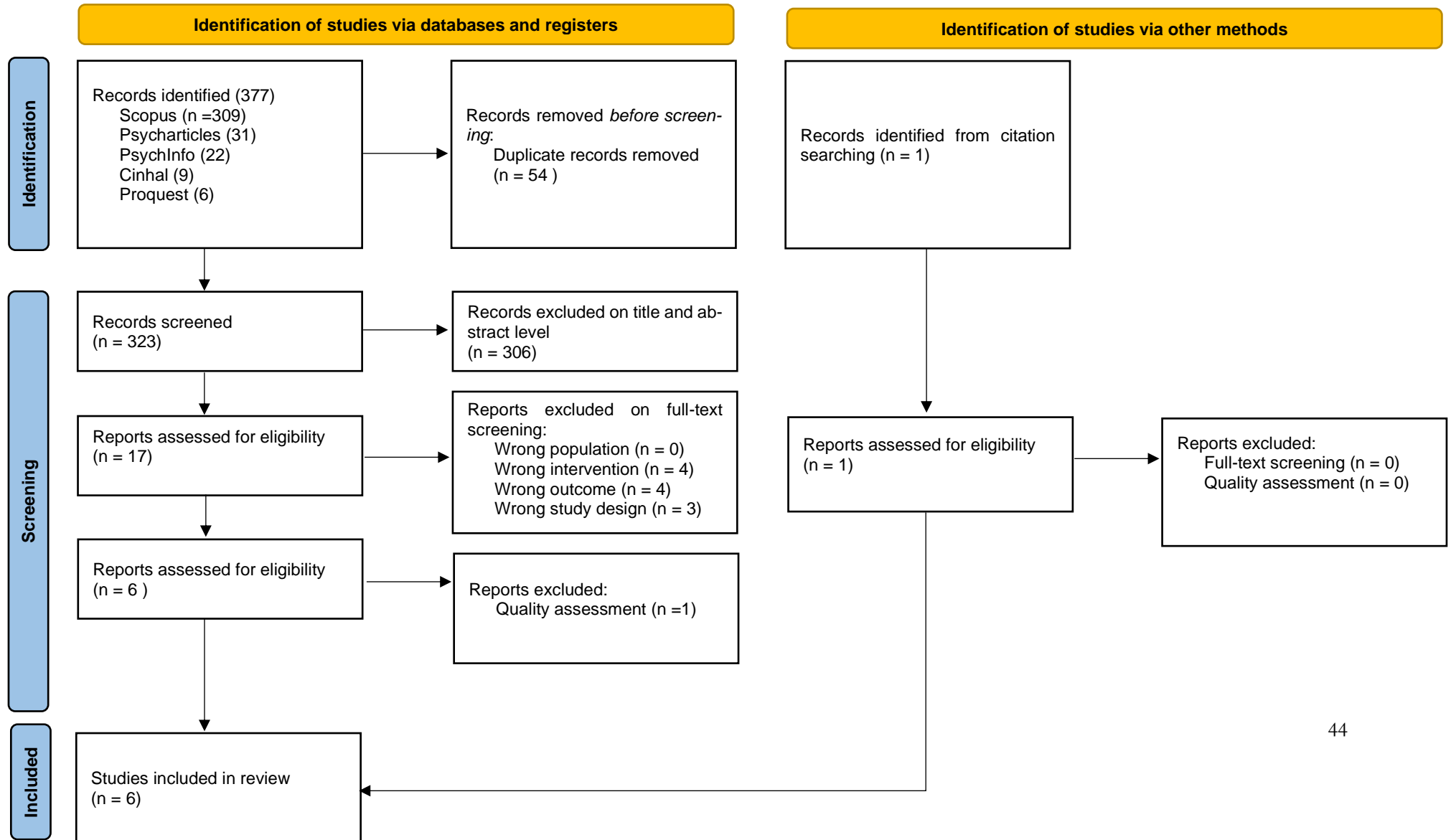
Data base	Search strings
PsycINFO, Psycharticles, Cinhal	(“child-centered play therapy” OR “non-directive play therapy” OR “non-directive play therapy” OR “non-directive play interventions” OR “natural play interventions” OR “natural play therapy” OR “child-led play therapy” OR “child-initiated play therapy” OR “child-directed play therapy” OR “child-centered play intervention” OR ccpt) AND (“externalizing behavior problems” OR “externalizing behaviors” OR “behavioral problems” OR “behavioral issues” OR “problematic behavior” OR aggress* OR “externalizing problem” OR “aggressive behavior” OR “antisocial behavior” OR “behavior problems” OR “externalizing symptoms” OR externalizing OR “disruptive behaviors” OR “disruptive behavior disorders” OR “behavior disorders” OR “conduct disorder” OR adhd OR “attention deficit hyperactivity disorder” OR asd OR autis* OR inattention OR hyperactiv* OR “conduct problems” OR “wandering behavior” OR “self-injuries behavior” OR “problem behavior” OR “child reactive disorders”) AND (“socioemotional competence” OR “socio-emotional competence” OR “socioemotional functioning” OR “emotional regulation” OR “emotional control” OR “emotion regulation” OR self-control OR self-regulation OR “social skills” OR “emotional skills” OR “socioemotional skills” OR “self-efficacy” OR “self-management” OR “anger management” OR “social behavior” OR “prosocial behavior” OR communicat* OR interact* OR empathy)
Scopus	("child-centered play therapy" OR "non-directive play therapy" OR "non-directive play therapy" OR "non-directive play interventions" OR "natural play interventions" OR "natural play therapy" OR "child-led play therapy" OR "child-initiated play therapy" OR "child-directed play therapy" OR "child-centered play intervention" OR ccpt) AND ("externalizing behavior

problems" OR "externalizing behaviors" OR "behavioral problems" OR "behavioral issues" OR "problematic behavior" OR aggress* OR "externalizing problem" OR "aggressive behavior" OR "antisocial behavior" OR "behavior problems" OR "externalizing symptoms" OR externalizing OR "disruptive behaviors" OR "disruptive behavior disorders" OR "behavior disorders" OR "conduct disorder" OR adhd OR "attention deficit hyperactivity disorder" OR asd OR autis* OR inattention OR hyperactiv* OR "conduct problems") AND ("socioemotional competence" OR "socioemotional competence" OR "socioemotional functioning" OR "emotional regulation" OR "emotional control" OR "emotion regulation" OR self-control OR self-regulation OR "social skills" OR "emotional skills" OR "socioemotional skills" OR "self-efficacy" OR "self-management" OR "anger management" OR "social behavior" OR "prosocial behavior" OR communicat* OR interact* OR empathy) AND (LIMIT-TO (SRC-TYPE,"j")) AND (LIMIT-TO (PUBSTAGE,"final")) AND (LIMIT-TO (DOCTYPE,"ar")) AND (LIMIT-TO (SUBJAREA,"PSYC") OR LIMIT-TO (SUBJAREA,"MEDI") OR LIMIT-TO (SUBJAREA,"SOCI") OR LIMIT-TO (SUBJAREA,"HEAL")) AND (LIMIT-TO (PUBYEAR,2023) OR LIMIT-TO (PUBYEAR,2022) OR LIMIT-TO (PUBYEAR,2021) OR LIMIT-TO (PUBYEAR,2020) OR LIMIT-TO (PUBYEAR,2019) OR LIMIT-TO (PUBYEAR,2018) OR LIMIT-TO (PUBYEAR,2017) OR LIMIT-TO (PUBYEAR,2016) OR LIMIT-TO (PUBYEAR,2015) OR LIMIT-TO (PUBYEAR,2014) OR LIMIT-TO (PUBYEAR,2013)) AND (EXCLUDE (EXACTKEYWORD,"Self Report") OR EXCLUDE (EXACTKEYWORD,"Juvenile") OR EXCLUDE (EXACTKEYWORD,"Brain") OR EXCLUDE (EXACTKEYWORD,"Infant") OR EXCLUDE (EXACTKEYWORD,"Disease Severity") OR EXCLUDE (EXACTKEYWORD,"Dog") OR EXCLUDE (EXACTKEYWORD,"Physician") OR EXCLUDE (EXACTKEYWORD,"Nuclear Magnetic Resonance Imaging"))

Appendix B

Figure 1

PRISMA Flowchart (Page et al., 2021)



Appendix C

Figure 2-Quality Assessment

CASP checklist for Randomized Controlled Trial

	1. Did the study address a clearly focused research question?	2. Was the assignment of participants to interventions randomised?	3. Were all participants who entered the study accounted for at its conclusion?	4. Were the respondents 'blind' to intervention they were given?	5. Were the study groups similar at the start of the randomised controlled trial?	6. Apart from the experimental intervention, did each study group receive the same level of care (that is, were they treated equally)?	7. Were the effects of intervention reported comprehensively?	8. Was the precision of the estimate of the intervention or treatment effect reported?	9. Do the benefits of the experimental intervention outweigh the harms and costs?	10. Can the results be applied to your local population/in your context?	11. Would the experimental intervention provide greater value to the people in your care than any of the existing interventions?	Total score
Bratton et al., 2013	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	High
Wilson & Ray, 2018	Y	Y	Y	N	Y	Y	C	Y	Y	Y	Y	High
Blalock et al., 2019	Y	Y	Y	Y	N	Y	Y	N	C	Y	Y	High
Ritzi et al., 2017	Y	Y	Y	N	Y	Y	Y	N	C	Y	C	Moderate

Y= yes, N= no, C =can't tell

Figure 3- Quality Assessment

CASP checklist for case control study

	1. Did the study address a clearly focused issue?	2. Did the authors use an appropriate method to answer their question?	3. Were the cases recruited in an acceptable way?	5. Was the exposure accurately measured to minimize bias?	6. Have the authors taken account of the potential confounding factors in the design and/or in their analysis?	7. Do you believe the results?	8. Can the results be applied to the local population?	9. Do the results of this study fit with other available evidence?	Total score
Philipps & Post, 2020	Y	Y	N	Y	C	Y	Y	Y	Moderate

Two questions excluded from this checklist because they were not applicable to this study, resulting in a total of nine questions instead of eleven. Y= yes, N= no, C =can't tell

Figure 4- Quality Assessment

JBIC checklist for quasi-experimental studies

	1. Is it clear in the study what is the 'cause' and what is the 'effect' (i.e. there is no confusion about which variable comes first)?	2. Were the participants included in any comparisons similar?	3. Were the participants included in any comparisons receiving similar treatment/care, other than the exposure or intervention of interest?	4. Was there a control group?	5. Were there multiple measurements of the outcome both pre and post the intervention/exposure?	6. Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed?	7. Were the outcomes of participants included in any comparisons measured in the same way?	8. Were outcomes measured in a reliable way?	9. Was appropriate statistical analysis used?	Total score
Bengwasan, 2023	Y	Y	Y	N	Y	Y	Y	U	Y	Good

Y= yes, N = no, U= unclear

Appendix D

Table 7

extraction protocol

	Questions
General information	Title Authors Year of publication Country Journal
Theoretical background and rationale	Study rationale Study purpose Research question or Hypothesis:
Participants' characteristics	Sample size Gender (m/f) Age of children Severity of problems before the intervention Cause of problem in particular population How they included in the study (parental and teachers referral or clinical diagnose)
Control group's characteristics	Sample size Gender (m/f) Age of children Severity of problems before the intervention How they included in the study (parental and teachers referral or clinical diagnose) Receive other interventions or not
Methodology	Study design Sampling strategy Data collection Respondents characteristics

	Data analysis
Intervention's information	Number of sessions Duration of each session Timeframe The spatial context of intervention Explanation of of interventions Treatment Fidelity (supervision, video recording, CCPT fidelity checklists)
Instruments	Instrument for assessing externalizing behavior problems Instrument for social and emotional competencies
Results	Significancy-P value Effect size
Limitations and strengths	
Conclusion	

Appendix E

Table 8

Instruments

	Studies	Externalizing behaviors	Socioemotional competencies
1	Bratton et al., 2013	C-TRF (Teachers form): Aggressive, behaviors	
2	Wilson & Ray, 2018	CAS (Teachers and Parents form): Aggression	SEARS (Teachers and parents form): Empathy, Self-regulation
3	Blalock et al., 2019		SEARS (Teachers and parents form): Empathy, Self-regulation, Social competence
4	Ritzi et al., 2017	TRF (teachers): Aggression, Rule-breaking, externalizing problems CBCL (Parents): Aggression, Rule-breaking, externalizing problems	
5	Bengwasan, 2023	TRF (teachers): Aggression, Rule-breaking, externalizing problems CBCL (Parents): Aggression, Rule-breaking, externalizing problems	
6	Philipps & Post, 2020	C-TRF (Observers): Aggressive behaviors, Hyperactive behaviors	

Appendix F

Table 9

Intervention's information

Studies	Structure of sessions			Treatment Fidelity		
	Dura- tion	Ses- sions' dura- tion	Number of ses- sions	Super- vision	Video re- cording	CCPT Checklist
1 Bratton et al., 2013	10 weeks	30 min	16-20	Y	Y	Y (Ray, 2011)
2 Wilson & Ray, 2018	8 weeks	30 min	16	Y	Y	Y (Ray, 2011; Ray et al., 2017)
3 Blalock et al., 2019	8weeks	30 min	16	Y	N	Y (Ray et al., 2017)
4 Ritzi et al., 2017	10 days	30 min	20	Y	N	N
5 Bengwasan, 2023	8 weeks	45 min	8	Y	Y	N
6 Philipps & Post, 2020	8 weeks	30 min	16	N	CaseA=N CaseB=Y	Y (Ray, 2011)

*Y= yes, N= no

Appendix G

Table 10

Subscale's information

Subscales		Studies				
	Respondents	Bratton et al., 2013	Wilson & Ray, 2018	Blalock et al., 2019	Ritzi et al., 2017	Bengwasan, 2023
Aggressive behaviors	Teacher	Y, large $\eta^2=.27$	N, small, $R^2=.042$		Y, $\eta^2=.13$ large	Y, large $\eta^2=.3$
	Parent		Y, large, Cohen's $d=.85$		Y, large, $\eta^2=.322$	Y, large $\eta^2=.803$
Rule-breaking	Teacher				N, medium $\eta^2=.065$	Y, large $\eta^2=.84$
	Parent				Y, large, $\eta^2=.157$	Y, large $\eta^2=.883$
Empathy	Teacher		N, small, $R^2=.042$	N, small $\eta^2=.03$		
	Parent		Y, large Cohen's $d=.85$	N, small, $\eta^2=.01$		

Self-regulation	Teacher	N, small, R ² _c =.042	N,small, η ² = .03
	Parent	Y, large Cohen's d=.85	Y, me- dium η ² = .07
Social compe- tence	Teacher		N, small, η ² = .03
	Parent		N, me- dium η ² = .07
