JÖNKÖPING UNIVERSITY
School of Education and Communication

Play interventions supporting the social and emotional development of preschool children with externalizing emotional and behavioral difficulties

A systematic literature review from 2000 to 2017

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One year master thesis 15 credits
Interventions in Childhood

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Spring Semester 2017

SCHOOL OF EDUCATION
AND COMMUNICATION (HLK)
Jönköping University

Master Thesis 15 credits
Interventions in Childhood

Spring Semester 2017

ABSTRACT

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Pages: 29

The number of preschool children displaying externalizing emotional and behavioral difficulties is constantly increasing. At the same time, these children often lack social and emotional skills as well. Even though more and more children display this noticeable behavior and preschool teachers are constantly reporting being overwhelmed with these children's behavior in preschool, a high number of children do not receive any support or intervention. Play provides appropriate means to support children's social and emotional development as play has a significant importance in young children's development. The aim of this systematic literature review is to get a better understanding through previous research on which play interventions have been found to facilitate the social-emotional development in preschool children with externalizing emotional and behavioral difficulties. Six studies with six different play-oriented interventions have been identified through this review. The results show that all interventions had either positive outcomes on the social-emotional development or show a decrease in emotional or behavioral difficulties. The factors which have been found as facilitating to these outcomes were use of play, intervention setting, awareness of others, involvement of licensed professionals, a safe environment and culturally and ethnically representative toys. This review provides a comprehensive overview on effective play-based interventions in preschool setting. However, further research is needed to examine individual environmental, familial and participation factors as well as specific training for preschool teachers.

Keywords: *Social-emotional development, play interventions, externalizing emotional and behavioral difficulties, preschool children, systematic literature review*

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ZUSAMMENFASSUNG

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Spielorientierte Förderangebote, zur Unterstützung der sozial-emotionalen Entwicklung von Kindergarten Kindern mit externalisierenden sozial und emotionalen Verhaltensauffälligkeiten

Eine systematische Literaturanalyse von 2000 bis 2017

Seiten: 29

Die Zahl der Kindergarten Kinder mit externalisierenden sozial und emotionalen Verhaltensauffälligkeiten steigt permanent an. Gleichzeitig zeigen diese Kinder oft ein Defizit in sozialen und emotionalen Kompetenzen. Obwohl die Anzahl der Kinder mit diesen Verhaltensauffälligkeiten immer weiter ansteigt und auch Erzieher/Innen immer wieder darauf hinweisen, dass sie mit dem Verhalten der Kinder überfordert sind, erhalten viele Kinder keine Förderung. Spiel bietet einen angemessenen Ansatz, um Kinder in ihren sozial-emotionalen Kompetenzen zu unterstützen. Es ist bewiesen, dass Spiel eine signifikant positive Auswirkung auf die sozial-emotionale Entwicklung von Kindern hat. Das Ziel dieser systematischen Literaturanalyse ist es ein besseres Verständnis über bereits bestehende spielorientiere Förderangebote und deren Auswirkung auf die sozial-emotionale Entwicklung von Kindergarten Kindern mit externalisierenden sozial-emotionalen Verhaltensauffälligkeiten zu erhalten. Sechs Studien mit sechs unterschiedlichen spielorientierten Förderangeboten wurden während der Analyse identifiziert. Die Ergebnisse zeigen, dass alle Förderangebote entweder positive Auswirkungen auf die sozial-emotionale Entwicklung hatten oder sozial-emotionale Verhaltensauffälligkeiten reduziert wurden. Fördernde Faktoren auf die Auswirkungen der Angebote waren die Anwendung von Spiel, der Rahmen, in der das Angebot stattgefunden hat, das Bewusstsein der Anwesenheit anderer, die Einbindung von geschulten Fachleuten, eine sichere Umgebung und die Anwendung von kulturell und ethnisch repräsentativem Spielzeug. Diese Analyse gibt einen umfassenden Überblick von spielorientierten Förderangeboten, die im Kindergarten umsetzbar sind. Es besteht jedoch ein Bedarf an weiterer Forschung, die individuelle Aspekte aus der Umwelt, der Familie und der Teilhabe der Kinder berücksichtigt. Außerdem ist es von Bedeutung, dass Erzieher/Innen die Möglichkeit für eine bessere Schulung bekommen, um mit den Verhaltensauffälligkeiten der Kinder besser umgehen zu können.

Schlüsselwörter: *Sozial-emotionale Entwicklung, spielorientierte Förderangebote, externalisierende sozial-emotionale Verhaltensauffälligkeiten, Kindergarten Kinder, systematische Literaturanalyse*

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1 INTRODUCTION

The author of this systematic literature review has a special educational background with a major in early childhood intervention. The author thus made preschool experiences which led to the topic of this review.

The number of children displaying socio-emotional and behavioral difficulties is constantly increasing. Preschool teachers report children's extreme external behaviors as problematic for group situations and as risks for a child's social and emotional development (Crnic, Hoffman, Gaze, & Edelbrock, 2004; Joseph & Strain, 2003; Maynard, Adams, Lazo - Flores, & Warnock, 2009). Socio-emotional and behavioral difficulties can cause mental illness in later life. Moreover, children displaying externalizing problem behaviors and lack social-emotional competences tend to be less engaged in peer interactions and are sometimes even excluded from social activities (Sjöman, Granlund, & Almqvist, 2016). Thus, to avoid social exclusion and mental illness, healthy social and emotional development is of great importance. Many children with underlying socio-emotional and behavioral problems but who lack a formal diagnosis such as e.g. Autism spectrum disorder (ASD), do not necessarily receive any help or intervention (CSSP, Center for the Study of Social Policy, 2012) as either the assessment of their difficulties is a challenge or parents and preschool teachers do not know how to support these children. These children are therefore at risk for poor outcomes mentioned previously and for this reason it seems necessary to explore and understand whether interventions have been developed to support children's social and emotional development.

In many countries, children spend a lot if not most of their time in preschool where play is viewed as an important and supportive process for a child's health, development and for handling experiences (Else, 2009; Goldstein, 2012). It would therefore make sense to implement play-oriented socio-emotional interventions for young children in preschool settings. Furthermore, preschool teachers would be assisted if interventions could support an easier everyday life, such as in group situations where externalizing socio-emotional problems tend to be experienced more. Preschool teachers and interventionists should therefore place an emphasis on socio-emotional play interventions for non-diagnosed children displaying externalizing emotional and behavioral difficulties.

1.1 Social-emotional development

Social-emotional development is seen as one of the most important parts of a child's development and well-being (CSSP, 2012). Well-being has been defined as a "good life" by the WHO (2007), taking into account mental, physical and social aspects. Furthermore, healthy social and emotional development facilitates a child's engagement and participation in social interactions (Buhs, Ladd & Herald, 2006; Sjöman et al., 2016). This social engagement in turn has a positive impact on the social-emotional development. If children lack skills in social or emotional areas they are at risk of being excluded and rejected by peers and other social contacts, which can lead to negative mental and psychological development outcomes (Buhs et al., 2006).

The most effective age for improving abilities connected to social and emotional development, is preschool age (Dobrin & Kállay, 2013; Kariuki, Chepchieng, Mbugua & Ngumi, 2007). The reason for this might be that children in that age spend a lot of time in preschool where they get into close contact with other, same-aged peers. In preschool children learn peer interaction skills and how to get along with others.

Research shows that children growing up and living in risky environments as well as children with developmental difficulties, are more likely to experience and display behavioral problems (Baker, McIntyre, Blacher, Crnic, Edelbrock & Low, 2003). Therefore it is necessary to support the entire range of aspects that influence a child's development. Social, emotional and behavioral health are important for child health and well-being in general (CSSP, 2012). Furthermore, social and emotional competences can reduce externalized problem behaviors such as conduct behavior and, thus have a positive impact on child development (Schmitt, Flay & Lewis, 2014; Waliski & Carlson, 2008). Social and emotional development is mainly used and seen as a milestone and a recognition of school readiness. Hence, the general well-being, mental health and also the outcome on participation (Almqvist, 2006) and peer interaction, which are dependent on social and emotional development, are often not mentioned in most of the research. This literature review thus focuses on social and emotional development in general including the above mentioned aspects.

Even though the two are closely connected and influence each other, it is important to note that a distinction between social behavior and emotional behavior is crucial (Ashiabi, 2007; Denham, Blair, DeMulder, Levitas, Sawyer, Auerbach-Major & Queenan, 2003; Dobrin & Kállay, 2013). Emotional behavior and development covers emotional competences, whereas social behavior and development refers to the interaction with others (Ashiabi, 2007; Matson & Fodstad, 2007). These two mental categories will now be described in more detail.

1.1.1 Social development and competence

Ashiabi (2007) defines social competences in childhood as important not only for getting along with same-aged children but also for the forming of relationships. Furthermore, social development includes the appropriate social behavior in group situations and towards peers. Moreover communication is an important part of social competences. Social skills can be expressed and recognized in different ways. Most commonly, they are signs of self-reliance and independent behavior regarding the contact to peers and other people around (Dobrin & Kállay, 2013). Social competences include the ability to motivate oneself, to ask for help or to provide help, to work and play together with others, to communicate in a suitable way but also the ability to share things and integrate others in group or play situations, to recognize people around and how to interact with each. Especially in preschool years (age three to six) the development of social skills is of high importance as this is the period when basic competences are learned and established (Largo, 2012). With the start of the second year of life, a child starts to experience self-perception and empathy which are one of the main characteristics of the development of social competences (Largo,

2012). From the perspective of cognitive developmental theorists like Piaget (1962), play is an important vehicle through which children develop social competences since it often requires ongoing social interactions.

In addition to future mental health and well-being challenges, if a preschool child has difficulties in social development and does not get any support to address them, their problems will escalate. This may have an immediate impact on their participation in the preschool setting which requires positive interactions with adults and peers (Matson & Fodstad, 2007). The most common behavioral outcome of poor social development is antisocial and aggressive behavior (Dobrin & Kállay, 2013).

1.1.2 Emotional development

Emotional development includes the ability to handle and regulate emotions (McCabe & Altamura, 2011), to recognize one's own emotions and the emotions of others. It also covers the ability to appropriately show one's own emotions and to cope with every-day life situations and challenges (Dobrin & Kállay, 2013). In summary, emotional development includes emotional expression, emotional understanding and emotional regulation (Ashiabi, 2007; Dobrin & Kállay, 2013).

Emotional well-being has a great influence on social development (Caselman & Self, 2008; Domitrovich, Cortes & Greenberg, 2007). If children have problems in their emotional development, they will most likely also have problems in their social development and this is one of the reasons why social and emotional behavior delays are generally mentioned together.

One of the most important influences on positive emotional development is the environment in which a child grows up, learns, plays and lives (McCabe & Altamura, 2011). If the environment is constantly not child appropriate, which means a harmful environment including influences which are not understandable for children and also full of risk factors such as e.g. violence and parental low-income, which can have a negative impact on a child's development, the child will most likely have difficulties to develop useful and relevant emotional competences. Research shows that the lack of emotional competences or more specifically the lack of emotional regulation and recognition of emotions in childhood are often a trigger for aggressive behavior or more general externalized difficulties such as conduct disorder and antisocial behavior (Denham, Workman, Cole, Weissbrod, Kendziora, Zahn-Waxler, 2000; Domitrovich et al., 2007).

1.1.3 Factors that support social-emotional development

There are some factors which in general have a highly positive outcome on a child's healthy social-emotional development. In the preschool setting an important factor which supports a child's social and emotional development and also his/her social participation, is the responsiveness of the preschool teacher and also the interaction with peers (Sjöman et al., 2016). Other supportive factors include a child appropriate environment (CSSP, 2012). This includes factors such as caring, trustworthy, healthy and supportive parents, family and care-givers, but also a safe place, free of harm, to live and grow up in as well as a secure economic situation for the immediate family. Other important factors are the opportunity for

peer interactions, a safe neighborhood and freedom. All factors of a child's direct and indirect environment can shape its development (Almqvist, 2006; Almqvist & Granlund, 2005; Bronfenbrenner & Morris, 2006; Claessens, 2012) and therefore, can also be positive and supportive.

1.2 Emotional and Behavioral Difficulties (EBD)

Research shows that over 20 percent of children have at some point in their lives experienced restrictive mental disorders and around 80 percent of them do not get any appropriate support (CSSP, 2012). A high number of children between birth and the age of five years, experience social and emotional behavior problems due to different environmental and family risk factors (Bratton, Ray, Rine 6 Jones, 2005; Cooper, Masi & Vick, 2009). However, for varying reasons it is difficult to identify social and emotional problems in preschool-aged children. The fast pace of development in the early years makes it especially complicated to determine these developmental problems (Carter, Briggs-Gowan & Davis, 2004). Many assessments have been developed to support the identification of emotional and behavioral problems (Caselman & Self, 2008). Nevertheless, it is still a challenge for professionals to assess these difficulties.

Even though great progress has been made in the identification and implementation of interventions for children with emotional and behavioral difficulties (EBD) (Briggs-Gowan & Carter, 2008), the number of children with these problems is still increasing (Carter et al., 2004; Cooper et al., 2009; Crnic et al., 2004; CSSP, 2012; Cullinan, 2004; Homeyer & Morrison, 2008; Waliski & Carlson, 2008).

In order to understand to what extend they influence a child's social and emotional development and to enable effective further research, it is important to know how emotional and behavioral difficulties are defined. Emotional and behavioral difficulties are so closely connected to social behavior that the designations EBD and social-emotional behavior problems have the same meaning.

In the early years, EBD was defined as deviant behavior (Kauffman, Brigham, & Mock, 2004) especially for early childhood period. Children who showed conspicuous behaviors or in some way behaved differently than other children fell in the category of EBD. Today EBD is divided in many different subcategories. Some of these subcategories will be described later. Children who experience or show EBD mostly lack social and emotional competences which were mentioned previously. In summary, children who have difficulties with their self-regulation often lack social and emotional skills (Joseph & Strain, 2003).

Studies show that social-emotional behavior problems experienced in early ages persist over time if no intervention is implemented (Carter et al., 2004; Denham, 2006). Due to these findings it might be important to mention, that problem behaviors in later years do not occur unexpected or all of a sudden. Since socio-emotional and behavioral difficulties have their origins already in the early childhood period and mostly in preschool age (Waliski & Carlson, 2008), it is highly important that interventions already start to take place in these early ages. Another reason for early intervention of social-emotional development is that children usually are not yet able to change their behaviors on their own (Waliski & Carlson, 2008). Through targeted interventions they may be able to receive support which can help them to change

their behavior.

Some children experience more severe EBD than other children. This means that some children for instance only show symptoms of EBD, whereas other children have diagnosable social-emotional disabilities such as ADHD or autism spectrum disorder (ASD). The origins of specific EBD symptoms are mostly known and can be referred to the child's natural environment and the family situation, whereas the reason for the emergence of ADHD and ASD is unknown (CSSP, 2012). The differences between symptoms and diagnosable disabilities therefore need to be known when interventions are planned.

The decision to exclude diagnosable emotional and behavioral disabilities such as ADHD or ASD from this review and instead only focus on specific EBD symptoms such as disruptive behavior or conduct disorder has been made consciously: There is an abundance of studies and articles about children diagnosed with ADHD or ASD but they reframe from mentioning children having a conduct disorder or who only exhibit symptoms of it. The latter might not be strong enough to be diagnosed as a disability, yet they can still be strong enough to cause serious problems or challenges for the child as well as for their social environment. Moreover, since they have a persistent developmental disorder (Geurts, Verté, Oosterlaan, Roeyers, Hartman, Mulder, van Berckelaer-Onnes & Sergeant, 2004) with a severe inability to regulate social and emotional skills (Corbett, Constantine, Hendren, Rocke, & Ozonoff, 2010), children with ASD are less likely to receive maximum benefit from preschool interventions alone and which are not particularly designed for children with ASD (Jamison, Forston, & Stanton-Chapman, 2012; Vancraeyveldt, Verschueren, Van Craeyevelt, Wouters, & Colpin, 2015).

Socio-Emotional and behavioral difficulties can be subdivided into internal and external behavior problems. This review concentrates on externalizing behavior problems with a specific focus on disruptive behavior, conduct behavior as well as aggressive behavior and antisocial behavior.

1.2.1 Externalizing behavior

Externalizing behaviors are the most common behaviors of EBD (Denham et al., 2000) and are generally behaviors that are easily observed by others as they are carried to the outside. Children with externalizing problem behaviors tend to mostly distress people around them. These externalizing behaviors often are closely connected to emotional regulation problems and usually persist over time if no support is implemented (Campbell, Shaw & Gilliom, 2000; Denham et al., 2000). Studies show a significant gender difference in externalized problem behaviors. According to these researches boys are more susceptible for externalizing problem behaviors than girls (Campbell et al., 2000; Crnic et al., 2004; CSSP, 2012; Jiang, Granja & Koball, 2017). Several subcategories of externalizing problem behavior are described in the following paragraphs.

1.2.1.1 Disruptive behavior

Children who show disruptive behaviors have difficulties staying in one specific situation for a longer period of time. It is a challenge for these children to concentrate and be a part of group activities. Research shows that around 10 percent of preschool children display disruptive behavior (Kendziora, 2004). It is

proven that disruptive behavior has high negative impact on the social-emotional behavior of young children (Bratton et al., 2005). It has also been shown that disruptive behavior has long-term consequences such as antisocial behavior problems (Bratton et al., 2005; Powell, Dunlap & Fox, 2006). For those reasons it is important that affected children receive individual and appropriate interventions as soon as possible.

1.2.1.2 Conduct disorder and aggressive behavior

Conduct disorder including aggressive behavior is part of the emotional disturbance (ED) definition termed "Inappropriate types of behavior or feelings under normal circumstances" (Cullinan, 2004, p. 44). Children who regularly exhibit inadequate behaviors, such as hitting, pushing, yelling or saying hurtful words in daily situations and towards others will be associated with a conduct disorder or aggressive behavior. It is important to mention that children who show aggressive behavior are not inevitably diagnosed with an externalized disturbance, but, studies prove that children who are identified with an externalized problem behavior mostly also display aggressive behavior (Furlong, Morrison & Jimerson, 2004). Research shows that children with aggressive behavior are often rejected by peers, as those are afraid of their aggressive manner (Denham, McKinley, Choucgoud & Holt, 1990; Sjöman et al., 2016). This rejection in turn has negative outcomes for the child exhibiting this problem behavior, as they tend to show even more externalized behavior symptoms (Ştefan & Miclea, 2010). Research also shows a strong connection between aggressive behavior and antisocial behavior (Maynard et al., 2009).

1.2.1.3 Antisocial behavior

Antisocial behavior has a close connection to social development and results in a lack of social skills and empathy (Campbell et al., 2000; Crnic et al., 2004). These deficiencies can be caused by various factors, mostly familial such as domestic violence and inadequate treatment (Cooper et al., 2009; CSSP, 2012). Since children with aggressive behavior tend to also show antisocial behavior, children with antisocial behavior are more likely to show aggressive behavior towards peers (Denham et al., 2000; Diken & Rutherford, 2005).

1.2.2 Risk factors for social-emotional development

It needs to be considered that all kinds of environmental factors can influence a child's development and thus can turn into risk factors (Bronfenbrenner & Morris, 2006; Claessens, 2012). A huge risk factor for children's social-emotional well-being is growing up in poverty. Children who live in low-income families are more susceptible to behavior problems than other children are (Jiang et al., 2017). The home environment which a child grows up in has major influence on a child's outcome (Campbell et al., 2000; Claessens, 2012; CSSP, 2012) and includes the educational level of parents or parental mental illness (Ştefan & Miclea, 2010). If parents have a low educational status or are mentally ill, they are more likely to be unemployed, which results in low income and in turn can affect healthy development of the child due to stressors on the parent-child relationship (Guralnick, 1997). In addition if parents lack developmental

child knowledge or maltreat their child, the risk for negative developmental outcomes is huge (Ştefan & Miclea, 2010). Also the neighborhood and social contacts of the family are a part of the environment and have an impact on a child's well-being. There is a constant demand to create effective environments for children with behavior problems in order to support successful education for them regarding their difficulties (Waliski & Carlson, 2008).

1.3 Social-emotional development and participation

The multidimensional concept of participation has been widely discussed. The WHO (2007) defines participation as "involvement in a life situation" (WHO, 2007, p. xvi). Definitions of the concept of participation are dependent on the context, but the definition stated by the WHO is the most common used description. The active engagement in situations and activities, including peer interactions and play, is one part of the participation concept. Participation and engagement are closely connected. Participation focuses more on the involvement in situations, whereas engagement determines to what extent and how children interact. (Almqvist, 2006; Harbin. McWilliam & Gallagher, 2000). This includes the interaction and behaviors with peers. The engagement of children is not only a naturally occurring action but also necessary for their learning of skills (Aguiar & McWilliam, 2013). Children need to engage in social interactions in order to gain social and emotional competences for their healthy social-emotional development.

Social acceptance, interaction and engagement have great impact on a child's social and emotional development (Buhs et al., 2006). The engagement of children in social activities is a natural and important behavior. Already in preschool environment children naturally search for social contact and opportunities to play together with peers (Almqvist, 2006; Corsaro, 1988). For instance cooperative and associative play are play behaviors which are often observable in preschool-aged children, especially between the ages of three and five years (Jamison et al., 2012). Research shows that a child's participation increases over time (Jamison et al., 2012).

As already mentioned, children who lack competences in the social and emotional field tend to be rejected and excluded by peers (Sjöman et al., 2016). Hence, it can be said that a healthy social-emotional development leads to better social participation.

1.4 Play interventions

As this review concentrates on intervention options which have a play-based approach, the meaning of play-oriented interventions will now be defined.

An intervention in general is the implementation of a planned action to support someone having problems or difficulties with performing tasks and needs help dealing with it (Sohns, 2010). Furthermore, interventions aim to improve a child's development and be preventive of any new developmental problems (Ramey & Ramey, 1998; Schmitt et al., 2014). To prevent mental health problems in early childhood it is important to implement interventions which not only focus on decreasing externalizing problem behaviors. These interventions should also aim at building social and emotional skills which are supportive

factors for a child's mental development (Domitrovich et al., 2007; Schmitt et al., 2014). Interventions can be implemented by different people. Considering preschool setting, interventions can be carried out by external professionals such as special educators, psychologists or counselors but preschool teachers also have the possibility to lead interventions in group and individual settings (Chen, 2006)

It is widely known that play in general and especially in childhood has positive outcomes on a child's overall development and well-being. Most professionals agree that play is a process that has one of the most important contributions to a child's development on different levels, including social and emotional development (Ashiabi, 2007; Else, 2009; VanFleet, Sywulak, & Caparosa Sniscak, 2011). Play also has healing and supportive outcomes on a child's individual, emotional and social behavior such as on increasing resilience, empathy and attention (Goldstein, 2012; Henricks, 2008). For these reasons it seems to be more than reasonable to implement interventions which use play to decrease problem behaviors in early childhood and to support a healthy development.

Play interventions mainly are supportive approaches using any kind of aspect of play, this means creating an atmosphere that children perceive as playful. These situations should stimulate the child's freedom to explore and try things. The intension of the play-based approach is to give children, who receive this sort of intervention, the feeling of play instead of being taught. Children in the early years learn more effectively through play (Santer, J., & Griffiths, 2007) and for that reason interventions should use that approach to their advantage.

The most well-known approach for a play-oriented intervention is formalized play therapy. Play therapy is mostly implemented for children with mental health problems and is therefore also appropriate for children with EBD (Bratton et al., 2005; Foulkrod & Davenport, 2010; Homeyer & Morrison, 2008). As there is no universal definition for play in general (Henricks, 2008; VanFleet et al., 2011) it is also difficult to find one common definition for play therapy (VanFleet et al., 2011). Yet various existing definitions all focus on play as a supportive and communicative way for children with mental and physical developmental delays and problems. Play therapy has been a well-known and implemented approach for many years and there are many different types of play therapy depending on the delays, problems and needs of a child (Homeyer & Morrison, 2008; VanFleet et al., 2011). Taking into account existing literature, it becomes obvious that play therapy is the most implemented play-oriented approach.

Even though it should be distinguished between 'intervention' and 'therapy', this review will also include studies focusing on play therapy, as these are play-oriented as well and therefore relevant (Landreth & Bratton, 1998).

The involvement of family, parents or caregivers in the intervention processes is very important and has a beneficial influence on a child's development (Bratton, Ceballos, Sheely-Moore, Meany-Walen, Pronchenko & Jones, 2013). Furthermore, other environmental factors which can have an impact on the child should be considered as well when planning and implementing interventions. These factors can give information about the origin of a child's behavior and thus are helpful for the planning of individual and effective interventions. However, since parents are not there it is not always possible to involve them in

interventions taking place in preschool. Parents sometimes do not want to be involved in intervention processes or do not have time to take part in sessions or intervention consultations. Of course parents are needed to give consent for the implementation of support for their child, however, this often is the only way they contribute.

1.4.1 Intervention setting: Preschools

Since younger children spend a lot of time in preschool settings and less time at home it seems to be appropriate to implement necessary interventions in preschool settings. Yet this makes it much more complicated to involve parents in the process. However, nowadays children tend to be scheduled by their parents in their spare time as much as possible, which makes it difficult for children to enjoy their free time. This is another reason why interventions implemented in the preschool would be alleviating for the child and the family (Sohns, 2010). Research shows that interventions implemented in preschool settings have overall positive developmental outcomes (Cheng & Ray, 2016). However there is no guarantee that interventions conducted in preschool will carry over to the home environment.

As the focus in preschool is on children having the opportunity to play and explore, this setting might be the most effective and natural to support children using this approach. Also the fact that preschool-based interventions can prevent children with problem behaviors from social and peer exclusion, this supports the preschool as an appropriate setting for intervention (Sjöman et al., 2016). Since children spend a lot of time in preschool with preschool teachers they tend to become important role models and people of trust for children (Vancraeyveldt et al., 2015). Consequently, these professionals are the main people responsible for finding out how to best handle situations and assist children in need of special social and emotional support. Therefore, interventions implemented in preschool are relieving for the child, their family and also for their preschool professionals (Sohns, 2010). Furthermore studies show, that preschool teachers, thanks to their skills, and the enabling preschool classroom atmosphere tend to have a positive impact on children's development (Sjöman et al., 2016).

1.5 Aim

This systematic literature review aims to gain a better understanding of what preschool-based play interventions have been found to facilitate the social-emotional development of preschool children with externalizing emotional and behavioral difficulties.

1.6 Review questions

- What play interventions have been found to support preschool children with externalizing emotional and behavioral difficulties?
- What are the characteristics of these interventions?
- What specific outcomes on the children's social-emotional development and participation did these interventions have?
- What are facilitators for the children's social-emotional development?
- How are familial and environmental aspects considered for the interventions?

2 METHOD

This study presents a systematic literature review. The process involves the following steps: systematically searching the literature, research study selection, critically analyzing and summarizing these studies with regard to the research questions (Jesson, Matheson, & Lacey, 2011). For this review, appropriate electronic databases were used with an advanced keyword search procedure. Relevant research studies were identified and critically analyzed with respect to specific intervention approaches and outcomes. To make sure that all appropriate articles were included, a hand search of the included article's references was conducted. A selection process according to specific inclusion and exclusion criteria followed. In addition, a quality assessment of the included articles was performed.

2.1 Procedure

The work for the systematic literature review was conducted in March 2017 through electronic databases. In consultation with a librarian to select appropriate data bases, an advanced search based on keywords was conducted on the PsycINFO, ERIC and ScienceDirect databases. These databases were chosen because they provide the needed information in the field of education. The search included different search words depending on the database to ensure a maximum result of relevant articles for this study's purpose and aim. Thesaurus search terms from one database were not used for another database to avoid irrelevant results.

The first search was conducted in PsycINFO and included free search terms as well as search terms found through Thesaurus. The following search terms were included: ("Emotional Immaturity" OR "Childhood Play Development" OR "Self-Control" OR "Emotional Instability" OR "Emotional Disturbances" OR "Emotions" OR "Social Control" OR "Emotional Control" OR "Emotional Adjustment" OR "Emotional Regulation" OR "Emotional Development" OR "Emotional and Behavioral Disturbance" OR "Externalizing Disturbance" OR "Aggressive Behavior" OR "Disruptive Behavior" OR "Poor Impulse Control" OR "Conduct Behavior" OR "Anti-Social Behavior") AND ("Play Therapy" OR "Childhood Play Development" OR "Emotional Development" OR "Childhood Play Behavior" OR "Play Interventions" OR "Play Oriented Interventions"). After applying age and publication limitations, the search gave a total of 1.515 articles as result. 403 articles were duplicates.

The search in ERIC was also carried out using free search terms and Thesaurus search terms. The terms included ("Emotional Adjustment" OR "Social Development" OR "Behavior Problems" OR "Emotional Development" OR "Behavior Disorders" OR "Emotional Disturbances" OR "Emotional Intelligence" OR "Hyperactivity" OR "Developmental Delays" OR "Emotional Problems" OR "Emotional and Behavioral Disorders" OR "Aggressive Behavior" OR "Externalized Disturbances" OR "Disruptive Behavior" OR "Conduct Behavior" OR "Anti-Social Behavior" OR "Poor Impulse Control") AND ("Play" OR "Play Therapy" OR "Therapeutic Play" OR "Play Interventions" OR "Play Oriented Interventions"). A total of 156 articles were found with the limitation on age and publication.

The advanced search in ScienceDirect included the following free search terms: ("Emotional and

Behavioral Disturbances" OR "Externalizing Disturbances" OR "Disruptive Behavior" OR "Aggressive Behavior" OR "Anti-Social Behavior" OR "Conduct Behavior" OR "Poor Impulse Control") AND ("Play Interventions" OR "Play Oriented Interventions" OR "Play Therapy"). The search was limited to the publication titles "Children and Youth Services Review", "Journal of the American Academy of Child & Adolescent Psychiatry", "Behavior Therapy" and "Journal of Pediatric Health Care" as a pilot search revealed that they appeared to be the most relevant. Further limitations were done under topics. The search was limited to the topics "child", "treatment", "behavior", "play", "social", "intervention", "attention deficit" and "behavioral". After all these limitations were included, there was a total of 25 articles.

2.2 Inclusion and exclusion criteria

Table 1
Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
Population	
- Preschool children aged 3-6 years with externalized emotional and behavioral difficulties	- Children <3 or >6, Adolescents, Adults
Focus	
- Externalizing emotional and behavioral difficulties (aggression, disruptive behavior, conduct disorder, poor impulse control, antisocial behavior)	- Diagnosed emotional and behavioral disorders; ADHD, ASD; other mental disabilities; Physical Disabilities - Interventions outside preschool
- Social-emotional development - Play interventions/play therapy in preschool (facilitators, support)	- Outcome on school readiness
Publication type	
- Peer reviewed article	- Abstracts, study protocols, books, book chapters, conference papers, thesis, and other literature
Peer reviewed	
- Published in English and German between January 2000 – March 2017 - Full-text available for free	- Other languages than English and German - Published before 2000
Design - Empirical studies Qualitative Quantitative Mixed	- Systematic literature reviews

The inclusion and exclusion criteria were established according to the aim and review questions of this study. These criteria had been determined before the database search was conducted. For this systematic literature review only studies written in English and German (the author's mother tongue), published between January 2000 and March 2017 were included. The time frame was chosen to obtain relevant studies from this millennium and to know the recent development in this field. Furthermore, the studies had to be freely available, full text from the University's library and peer reviewed. Literature such as abstracts, study protocols, books, book chapters, conference papers, thesis and other literature were excluded. Only empirical studies like qualitative, quantitative or mixed method studies were included, Systematic literature reviews were also excluded from this review. Included studies had to focus on preschool children aged between three and six years with emotional and/or behavioral difficulties, such as aggressive behavior, conduct disorder, disruptive behavior, antisocial behavior and poor impulse control. The focus of the included studies had to be on emotional and behavioral difficulties. If the studies focus on children with diagnosed emotional and behavioral disabilities such as ADHD or ASD, other mental disabilities or on physical disabilities, they were excluded. As only play interventions and their outcome on the social-emotional development of children in preschool are of interest in this review, only studies concentrating on supportive interventions using play, such as play therapy in preschool settings, were included. Intervention strategies carried out outside preschool were excluded as well (see Table 1).

2.3 Selection process

The search process in the three databases mentioned above resulted in a total of 1.696 articles. 403 were duplicates and were excluded. The remaining 1.293 articles were screened on title and abstract level according to the inclusion and exclusion criteria (see Table 1). After the title and abstract screening the remaining 60 articles were screened on full text level, again according to inclusion and exclusion criteria. To enable to keep track of the progress a prisma diagram-flowchart illustrating the selection process is added as an Appendix (A).

2.3.1 Title and abstract screening

For conducting the screening process the online systematic review tool, Covidence (Mavergames, 2013) was used. All 1.293 articles were imported into Covidence and subsequently screened on title and abstract level. For this step the inclusion and exclusion criteria were used (see Table 1). 1.233 articles were excluded according to related exclusion criteria. Reasons for exclusion mostly were a wrong population group like adolescents, adults or children younger than three years. Many abstracts also focused on children with ADHD or ASD, which was one important exclusion criteria, as the focus group in this review only is on preschool children displaying symptoms of externalizing behavior problems. Furthermore, it became obvious through the abstract screening process that many articles did not focus on play interventions or interventions in general and therefore were also excluded. These articles for instance focused on the measurement and assessment of emotional and behavioral difficulties or social-emotional development. Other articles focused on intervention approaches which were implemented at home or a therapy center, which

was also an exclusion criteria. During the abstract screening a few more duplicates were identified and subsequently excluded. This process left 60 studies for full text screening.

2.3.2 Full text screening

Full text screening was conducted on the 60 remaining studies. They were analyzed on their method sections to see if the study focused on play-oriented interventions and if the population were preschool children in the age between three and six years with emotional and behavioral difficulties, according to the inclusion criteria. Another focus during full text screening was on reported information regarding the population, the intervention and the social and emotional developmental outcomes. During the process of full text screening, 55 studies were excluded. Of these, 14 studies dealt with an intervention approach not appropriate for the current review, eleven studies had a not suitable study design, eight studies concentrated on a population not relevant for this review, seven studies had an incorrect focus in the intervention, seven studies described a setting which was not relevant for this review, five studies were not accessible, one more study was identified as a duplicate, one study showed a significant lack of information and one study focused on outcomes which were not relevant for this review. To keep track on the information provided in the studies a data extraction tool was used. After the full text screening of the included studies was conducted the references of these studies were screened for further possible and relevant studies meeting the inclusion criteria. This hand search ended up with one more study (Waliski & Carlson, 2008). The process of full text screening resulted in six final studies for further data extraction.

2.3.3 Quality assessment

The Quantitative Quality Assessment Tool (CCEERC, 2013) was adjusted and used on full text level to assess the quality of the included six studies. The original tool consisted of eleven items and a ranking scale from 1, 0, -1 points and a Not Applicable (NA) option. As this tool in its original setting was not sufficient for the current review, as relevant items and information were not included, some items were added. These items were adjusted according to peer review, aim and review question (Richert, 2016). Furthermore, items about the intervention information, study design, the existence of a control group and the fact if the study contained a follow-up evaluation were adapted. This process resulted in a total of 18 items divided in four categories: Publication and background, Method, Measurement and Analysis. Moreover the ranking scale was adjusted to 0, 1 and 2 points (Richert, 2016). The NA option was not used for this review. Adjustments in the ranking scale allowed the measurement of information, which was included in the studies, to be more applicable. The new ranking scale consisted of a range from 25-32 points for High quality, 17-24 points for Medium High quality, 9-16 points for Medium quality and 0-8 points for Low quality. According to this measure, one study showed high quality, three studies showed medium high quality, one study had medium quality and one study had low quality. The full quality assessment tool and its results can be seen in Appendix B table 7 and 8.

Due to the limited amount of included studies found for data extraction, a decision was made to also include the low quality study in this review.

2.4 Data extraction

To have a clearer view about the information included in the studies, a data extraction protocol was developed by the author (see Appendix C). The protocol was used to collect general information about each study such as the author's names, publication year, title, language of the article, the location where the study took place, the articles rationale, purpose and research question or hypothesis. In addition, participant characteristics in terms of sample size, gender, age, measurement of EBD and symptoms of EBD were collected. Details about the implemented interventions were recorded according to the intervention approach, spatial setting, individual or group setting, number of sessions, times per week and duration of each session. Furthermore, the studies were each analyzed on the intervention period in general, on who carried out the intervention, if the approach was inclusive, on the main purpose of the intervention, the measurement to enhance treatment fidelity, the involvement of family/parents, facilitators and the existence of a control group. The information about the outcomes of the intervention was extracted in terms of the effect on social-emotional development, other outcomes such as on internalizing behaviors, the measurement of outcome and the time points of measurement. The manner in which data was collected was also of interest and information was extracted in terms of whether data was collected through observation, questionnaires, self-reports or through tests. Information about the study design captured whether studies were qualitative, quantitative, mixed or other designs. For the results of the study information according to conclusion and limitations were extracted. The six included studies were read thoroughly and data extracted until all relevant and existing information were filled in the protocol. With the help of the protocol the information was compared and the content of the studies was analyzed according to the aim of the review in order to answer the current review questions.

The extraction protocol consists of 42 columns and eight lines in an Excel-table and can be provided by the author on demand.

3 RESULTS

After the selection process and applying inclusion and exclusion criteria, six final studies were included in this review (Bratton et al., 2013; Cheng & Ray, 2016; Jamison et al., 2012; Maynard et al., 2009; Vancraeyveldt et al., 2015; Waliski & Carlson, 2008). The included studies were published between 2008 and 2016 and all focus on play-oriented interventions for children with externalized EBD. Four of the six studies were control-group studies (Bratton et al., 2013; Cheng & Ray, 2016; Maynard et al., 2009; Vancraeyveldt et al., 2015)

The results will be presented in order to answer this study's review questions a) What play interventions have been found to support children with externalized EBD?, b) What are the characteristics of these interventions, c) What specific outcomes did these interventions have? and c) What were facilitators for the social-emotional development?

3.1 Study description

Table 2
Study Identification Numbers (SIN) related to the intervention, the country of implementation and the author's

SIN	Intervention	Country	Author
I	Child-Centered Play Therapy	United States	Bratton et al. (2013)
II	Child-Centered Group Play Therapy	United States	Cheng & Ray (2016)
III	Buddy-Program	United States	Jamison et al. (2012)
IV	Sensory Play Activities	United States	Maynard et al. (2009)
V	"Playing-2-gether"	Belgium	Vancraeyveldt et al. (2015)
VI	Group Intervention; Cooperative Play	United States	Waliski & Carlson (2008)

Note. SIN = Study Identification Number

The six included studies present in total six different play-oriented intervention approaches (see Appendix E). Most of the interventions were implemented in the United States. Only one intervention was carried out in Belgium.

In the further course of this review the six included studies will be presented with their Study Identification Number (SIN) (see Table 2).

The participants of the six included studies all were children with different symptoms of externalized EBD. Only one study did not mention specific EBD symptoms (VI). This study only included information about how the child's behavior was measured. Parents were never actively involved in the preschool-based interventions itself. However, in study VI it was explained that parents were asked to support their child's learning of emotional expression also at home. Except for one study (III), all studies explicitly reported parental consent for the involvement of their child in the intervention. Two studies (II, V) also involved the parents in the evaluation process of the intervention outcomes. In all studies preschool teachers were asked to assign children to the intervention. Only in three studies (III, V, VI) preschool teachers were active members or performed the intervention as well. In only one study (III) the preschool teacher carried out the complete intervention. In all the other studies at least one researcher, master student, doctoral level student or professional counselor was involved in the intervention implementation. The sample size of the studies varied between 175 participants (V) and one participant (III). The age of the participants ranged between three to six years. Nearly all studies which mentioned the gender of the participants included more boys than girls. Only one study (VI) reported about ten female and five male participants. All studies took place in a preschool setting, however, some interventions were implemented in a separate individual setting, with only the child and the interventionist (I, IV, V), in a separate group setting with a selected group of children (II) or in the classroom setting (III, VI). The intervention duration varied between four weeks and twelve weeks and the amount of intervention sessions ranged from eight sessions to 24 sessions. Only one study (IV) reported that the amount of sessions and the session duration was dependent on the participants but was offered during the whole day. The intervention sessions of the other interventions were reported to last between 15 to 75 minutes. All studies except of two

(III, IV) reported that interventions took place at least twice a week. However, study III did not give any information about intervention duration or number of sessions.

3.2 Interventions supporting children with externalizing EBD

3.2.1 Types of interventions

The six identified interventions in this review were Child-Centered Play Therapy (CCPT) (I), Child-Centered Group Play Therapy (CCGPT) (II), a Buddy-Program (III), a teacher intervention during Sensory Play (IV), an intervention called Playing-2-gether (V) and a Group Intervention (VI).

Table 3
Type of intervention and setting presented in the studies

SIN	I	II	III	IV	V	VI
	Child-Centered Play Therapy (CCPT)	Child-Centered Group Play Therapy (CCGPT)	Buddy-Program	Teacher Intervention during Sensory Play	Playing-2-gether	Group Intervention
Individual Setting	X			X	X	
Group Setting		X				X
Pair-Setting			X			

Note. SIN = Study Identification Number, see Table 2.

3.2.2 Characteristics of interventions

All studies aimed at decreasing externalized EBD such as conduct disorder, antisocial behavior or disruptive behavior, or at increasing social and/or emotional skills (see Table 4). Furthermore, all studies reported a different way of using play as an intervention approach, regarding the play settings and the materials used. Child-Centered Play Therapy is a formal play therapy approach that is based on Carl Rogers's (1942) person-centered theory and is one of the most frequently used interventions employed by play therapists. The content of the intervention in study I and II only differed in the fact that in study I the intervention was implemented in an individual setting and in study II the intervention focused on a group setting. However, both interventions oriented on the guidelines of "Child-Centered Play Therapy". These guidelines include the free and child initiated play with provided and selected toys and other materials which should encourage a child's expression (Axline, 1947; Landreth & Bratton, 1998). The play therapist is an interactive member of the therapy and gets the possibility to view "the inner dimensions of the child's world" (Landreth & Bratton, 1998). The aim of this therapy is that children play out their feelings and learn to regulate them (Axline, 1947). Child-Centered Play Therapy and Child-Centered Group Play Therapy takes place in a separate room equipped with selected toys and materials.

The population of the intervention in study I consisted of children with disruptive behaviors. The

sessions took place in a special room in the child's preschool, which was equipped according to play therapy guidelines, which have been mentioned above, and also included culturally and ethnically representative materials. The participants had the freedom to direct their own play and express their inner world through the self-directed play with the provided materials and toys.

The intervention in study II used a separate room equipped according to play therapy guidelines as well. Here the participants displayed apparent or emerging deficits in the social and emotional behavior which have not been explained in more detail. Again the children had the freedom to direct their own play and to express their inner world, but as this intervention (study II) used a group setting, the focus also was on the interaction between the participants.

The intervention in study III was a "Buddy-Program" which was about randomly pairing children of one preschool classroom and giving them the opportunity to play, stay and talk together during a specific time period which was determined by the preschool teacher. In this intervention the preschool children of a special education classroom were randomly paired by the preschool teacher. The timeframe during which the paired children were supposed to stay and play together was set according to the children's age and abilities but lasted at least ten minutes. During one day the preschool teacher assigned new pairs for a few times. However, the teacher considered to pair children which have not been in pairs before that day. At the time when the pairs were supposed to play and stay together they either got play instructions by the teacher or were supposed to decide for something they wanted to do together. This approach aimed at increasing the social skills through peer interactions.

The intervention in study IV used sensory play time to support the emotional development of the children. Sand and water tables were used as materials for the sensory play. To use this approach for supporting emotional skills is based on the theory that emotional development occurs when children explore and discover through the use of play (Maynard et al., 2009). Children get the opportunity to explore while playing at the sand and water tables. During the time when children were playing at these tables an interventionist implemented different activities such as a "stop/start games", a "direction following" game and a "freeze" game. Children were free to choose how much time they wanted to spend at the sand and water tables and how long they wanted to take part in the implemented activities. The interventionist drew attention to children who displayed excitement or disappointment during the activities. This approach aimed at supporting the child's emotional development in parts of emotional recognition and regulation.

The "Playing-2-gether"-intervention in study V used teacher-child interaction as a setting and method to reduce externalizing EBD. The preschool teacher and the child were supposed to play together over a time period of 15 minutes. The preschool teacher had planned play sessions for two time points during a week when child and teacher played together. This play sessions could for instance be board games or drawing together. However, it could also be activities in which the teacher asks the child to help with something. This intervention aimed at improving teacher-child relations and at improving the child's social interaction skills.

The intervention of study VI used cooperative play as a way to increase emotional skills. This was

done in group setting in a preschool classroom including children with and without externalizing EBD. The intervention was carried out including all children of the class. All children including the preschool teacher and an external professional were first sitting together. Each session had a different focus such as emotion recognition and emotion regulation. In the beginning the counselor introduced the topic of a day by reading a story or showing pictures to the children. Afterwards children were supposed to meet in little groups or pairs and were asked to participate in cooperative play and describe their feelings during the play. The aim of this study was to increase emotional recognition, regulation and expression. And at the same time the intervention aimed at using this emotional skills for decreasing aggressive responses in social interactions.

3.2.2.1 Intervention implementation by internal and external professionals

By comparing the studies it became obvious that there is an equal number of interventions carried out by the preschool teacher themself (thus, an internal preschool professional) (studies III, V, VI) or a psychologist, counselor or researcher (an external professional) (studies I, II, IV respectively). Of course it must be taken into account that some interventions in the studies were carried out for a specific research and hence were implemented by an external professional. This does not exclude the opportunity that also the internal preschool teacher could carry out the intervention (study IV). Another reason that interventions were not carried out by the preschool teachers themselves might be the requirement of special licenses or trainings for the permission to carry out for instance CCPT. Also the fact that there is already a high pressure on the preschool teachers and a lack of time makes it often difficult for them to carry out extra interventions, especially when the intervention needs to be implemented in an individual setting (studies I, VI).

3.3 Outcome on social-emotional development

The aims of all included interventions were to either support social-emotional development, to increase social and emotional skills or to decrease externalizing EBD.

Table 4
Purpose of interventions

	I	II	III	IV	V	VI
Reduce externalizing EBD	X				X	
Support children with socially related difficulties (emotional, social, learning skills)		X				
Increase social skills/interaction			X			
Increase emotional skills						X
Support social-emotional development				X		
Improve child-teacher interaction & communication					X	
Increase positive emotional experiences					X	
Decrease aggressive behaviors						X

Note. Interventions are reported with their Study Identification Number (SIN) see Table 2.

All studies mentioned their main purposes of the implemented interventions. Hence, the interventions of study I and V focused on reducing externalizing EBD in general, whereas the intervention of study V also aimed at improving the child-teacher interaction and communication and also at increasing positive emotional experiences. Only one study (I) explicitly mentioned the use of a play-based and self-directed approach already when describing the purpose of their intervention. The intervention of study II was implemented to support children who had difficulties in their emotional, social and learning skills through group member interactions. The intervention in study III exclusively focused on increasing social skills, which also was a part of intervention in study II mentioned before. One intervention (study VI) also concentrated on increasing emotional skills of preschool children, which formed a part of intervention of study II, as well. Another study (IV) aimed at supporting the general social and emotional development. Besides increasing emotional skills, the intervention of study VI also concentrated on decreasing aggressive behaviors. Thus, except for the Buddy-Program that exclusively focused on social skills all the other interventions in this review included both the social and emotional components.

Table 5
Outcomes of interventions

	I	II	III	IV	V	VI
Decrease disruptive problems	X					
Decrease aggression	X	X				
Decrease attention problems	X					
Increase social-emotional skills		X				
Increase social skills/(interaction)*		X		X+(*)		
Increase empathy		X				
Increase in emotion expression		X		X		
Increase emotional development**						X
Decrease externalizing EBD					X	X

Note. Interventions are reported with their Study Identification Number (SIN) see Table 2. *not measured but observed. **includes emotion identification, expression and awareness

Except for two studies (III, IV) the outcomes of the interventions were measured three times, either as pre-, mid- and post-tests (I, V) or as pre-, post- and follow-up-tests (II, VI). One intervention's (IV) outcomes were measured at two time points, before the intervention and directly after the completion of the intervention. Study III did not report the measurement tools used and time points at all. This also is the study which was rated with the lowest quality. All studies used different measurement tools to evaluate the intervention outcomes. For more details about the measurement tools and the measurement time points, see Appendix D.

Through Table 5 it becomes obvious that some outcomes of the implemented interventions (V, VI) mainly were decreased externalizing EBD and increased social-emotional development in general. However, some interventions (I, II, IV, VI) also described specific outcomes on symptoms of externalizing EBD such as aggression and disruptive behavior or emotional competences. Nevertheless, two studies (III, V) did not present any explicit examples of the intervention's outcomes at all. Except for study III all studies presented statistically significant changes in the social-emotional development.

3.3.1 Social development

As mentioned before, some studies mainly present general results of the outcomes on social and emotional development. However, a few studies mentioned specific outcome-examples. Only two studies (II, IV) mentioned particular outcomes on the social development. An outcome of the intervention in study II was the increase in empathy which resulted in the act of providing help towards peers. This skill was built through the implementation of an intervention in group setting. Another study (IV) presented the increase of social skills, but also drew on an observed enhancement in social interactions as an outcome of the implemented intervention. Thus, children tend to interact more with each other through the implementation of play activities during sensory play.

3.3.2 Emotional development

Emotional development mainly includes emotion regulation, understanding and expression. Study I mentioned positive outcomes through decreasing disruptive problems, aggression and attention problems. However, no further explicit examples are mentioned in this article. Three studies (II, IV, VI) presented particular outcomes referred to the emotional development. One study (II) displayed the increase in expressing and verbalizing needs and feelings. Furthermore, it presented the increase in regulating aggressive behavior. Another study (IV) also mentioned an increase in sharing feelings and concerns, hence, expressing emotions. Study VI presented an increase in emotion identification, emotion expression and emotion awareness. Thus, the provided group intervention in study VI facilitated a broad spectrum of the emotional development.

3.4 Outcome on the child's participation

Only one study (III) mentioned the concept and significance on participation itself but did not mention intervention outcomes on it. Other studies (II, IV, V, VI) drew on the related concept of interaction. However, the interaction was not a measured but an observed outcome. No further information about the interaction outcomes were mentioned. The implementation of the interventions all had the secondary effect of increased peer (studies II, IV, VI) or teacher-child (study V) interaction. Study I did not mention participation or related concepts at all.

Even though some studies (II, IV, V, VI) mentioned the concept of interaction, no study focused on this concept as an outcome or specifically measured the effect of the intervention on participation.

3.5 Facilitators

Table 6
Intervention facilitators

	I	II	III	IV	V	VI
Play approach	X	X	X	X	X	X
Licensed professionals	X	X				X
Safe environment		X				
Awareness of others		X				
Culturally and ethnically representative toys	X	X				
Individual setting	X			X	X	
Group setting		X	X			X

Note. Interventions are reported with their Study Identification Number (SIN) see Table 2.

The main facilitators which were mentioned in the studies were limited to seven different factors (see Table 6). Three studies (I, II, VI) mentioned that the licensed and professional counselors presented a highly important facilitator as they were able to create appropriate atmospheres and relationships. Another facilitator was a safe play environment, in which the children felt free to explore and express feelings, this was

mentioned in study II. This study also referred to the awareness of other group members as a facilitator, which means that children's social and emotional development outcomes were supported by their recognition of other group member's attendance. Culturally and ethnically representative toys facilitated positive developmental outcomes and a wide range of expressing the inner world in two studies (I, II). However, these studies did not mention what these culturally and ethnically representative toys in specific were. Depending on the intervention setting and the intervention purpose, either an individual setting or a group setting were facilitators for different outcomes. Some studies (I, IV, V) mentioned the individual setting as facilitative for emotion expression and emotion learning. Other studies (II, III, VI) drew on increased peer interaction and social skills facilitated through the group setting. However, across all interventions, the key facilitator was the use of a play-oriented approach, which created a natural atmosphere for the children who participated.

3.6 Involvement of family and environment

Except for study III, all studies mentioned the involvement of parents. However, this involvement was mainly limited to the action of giving consent for the participation in the intervention. Only three studies (II, V, VI) mentioned further parental involvement. In study II the parents were asked to fill in a questionnaire about their assessment of their child's current behavior before and after the intervention took place. This was done to evaluate the intervention's outcomes on their child's social-emotional behavior. However, no further details were given about the evaluation process. In study V parents were asked to answer questions about the family's background. This was also the only study which attempted to collect environmental information for the study. Even though this step was done, no information about the family backgrounds were reported in the study. In study VI parents were asked to support their child's emotional learning and emotion expression at home by explicitly drawing attention to emotions. However, no study mentioned active parental involvement during the intervention implementation in preschool. Except for the previously mentioned study (V), no other study presented or even asked for environmental or family factors which could influence their child's development or behavior and therefore these were never targeted as part of the intervention.

4 DISCUSSION

The aim of this paper was to review literature to identify play-oriented interventions which support the social and emotional development of preschool children with externalized EBD. The focus was on children aged between three to six years. Furthermore, the interventions had to take place in preschool setting in order to facilitate change in the context where many of these problem behaviors occur.

Six studies presenting play-oriented interventions to support the child's social-emotional development were identified. The results of this literature review revealed different play intervention approaches to support social-emotional development. However, the interventions differed in their specific purpos-

es and outcomes. Nevertheless, the focus was always on improving the social or emotional development or at least parts of it. Even if the interventions differed, they all resulted in positive outcomes on the social-emotional development. Only one study (III) did not present any measured outcomes.

To answer the review questions of this systematic literature review, the results of the six included studies will be discussed.

4.1 Outcomes on the social-emotional development

Despite the fact that nearly all studies presented positive outcomes after the intervention implementation, no study described the specific outcomes in depth. The studies mainly mentioned a general decrease of externalizing EBD or an increase of social and/or emotional skills. Specifically, it was presented that disruptive behavior, aggression and attention problems decreased (I, II), that social and emotional skills increased (II), that parts of the emotional development were increased (IV) or that EBD was decreased (V, VI). This of course shows that the interventions seemed to be effective but it is not known how the children's EBD's decreased or how their social and/or emotional skills increased. Important information is therefore still missing from these studies.

One of these examples is the increased awareness of other group members (II). This awareness of others was mentioned as a facilitator but also as a positive outcome of the intervention implementation. Recognition and awareness of others is a part of social competences (Dobrin & Kállay, 2013) and also a facilitator of engagement in pair or group situations (Cheng & Ray, 2016). Without this awareness children would not be able to recognize the opportunity to interact with peers.

As mentioned earlier, interventions which are implemented for children with EBD should not only focus on decreasing EBD symptoms or EBD in general (Domitrovich et al., 2007; Schmitt et al., 2014), but should also support and increase the social and emotional skills of the affected children. Such a balance between EBD decrease and social-emotional skill support was only reflected in two studies (II, IV). Thus, children experienced support in developing more social and emotional competences and at the same time their displayed externalizing EBD were decreased through the intervention. It could be assumed that this outcome would take place naturally as a decrease in EBD might in turn, increase social-emotional competences. However, this assumption is not yet proven.

The use of a play-based approach as an intervention for preschool children displaying EBD obviously is an effective support for children's social-emotional development (II, IV) and also for decreasing EBD (I, V, VI) (Ashiabi, 2007; Bratton et al., 2005; Else, 2009; Santer, J., & Griffiths, 2007; VanFleet et al., 2011). That play is an effective approach for children in need of this type of support might be due to the fact that especially in the preschool age, play is one of the most naturally occurring activities (Else, 2009). Thus, play might not be experienced as a contrived situation by children and because of that they learn and develop the targeted skills naturally. This natural atmosphere is also supported by the preschool setting itself as preschool is the place for children were they are allowed to play and try out things (CSSP, 2012).

Children who show specific symptoms of externalizing EBD but do not have a diagnosis often do not receive appropriate support (CSSP, 2012) even though preschool teachers constantly report the risk for the affected children's social-emotional development and their own helplessness regarding options how they could support these children (Crnic et al., 2004; Joseph & Strain, 2003; Maynard et al., 2009). Often children do not receive support because they do not have a diagnose as they display symptoms which not yet are a disability. Circumstances like this make it difficult to sustain interventions. A possibility to support and sustain the implementation of those interventions would be to educate preschool teachers more in assessing children's symptoms of externalizing EBD and train them how to intervene.

Considering the fact that many children do not receive any support even though they are in need of special support, just because they do not have a diagnosed disability is striking. Children obviously need to be labeled to get the opportunity for special supports. However, the labeling of children and persons in general is a risk for social exclusion (Bynner, 2000) and thus presents a dilemma for parents as they are often the ones who are responsible for getting their children diagnosed. The health systems of many countries however demand a diagnosis to offer support. These countries should consider the opportunity to provide support for children in need but without any diagnosis as well. This consideration could decrease the number of children who are in need but do not receive any support and could also decrease the number of children who resulting out of the non-support develop a disability.

4.2 Evaluation of participation outcomes

Although social-emotional development is of great importance for a child's participation (Aguiar & McWilliam, 2013; Buhs et al., 2006; Sjöman et al., 2016), only a few of the studies paid attention to this aspect (II, III, V, VI).

As literature shows, social interaction positively influences a child's social-emotional development (Buhs et al., 2006). This was also reported in the included studies (Cheng & Ray, 2016; Vancraeyveldt et al., 2015; Waliski & Carlson, 2008) and thus supports the literature's findings.

However, as participation is one of the main aspects for the importance of a healthy social-emotional development (Buhs et al., 2006; Sjöman et al., 2016), especially in early childhood, these concepts seem to be insufficiently considered in the studies. Even if the primary focus of the interventions of course was to support the children's social and emotional development and to decrease externalized EBD, there is no guarantee that just by improving social-emotional skills this will result in better social participation (Almqvist, 2006; Jamison et al., 2012). For that reason participation outcomes could have been considered as an additional outcome in follow-up.

4.3 Evaluation of facilitators

In this review, the use of play as an intervention approach was an essential facilitator across all the studies for the children and also for preschool teachers and other professionals. The nature of play supports a positive way of learning for children and also gives them a safe and free feeling, which has been previously

reported (Foulkrod & Davenport, 2010; Homeyer & Morrison, 2008; Landreth & Bratton, 1998; Santer, J., & Griffiths, 2007).

However, to offer this free and safe feeling for children it is necessary to provide an appropriate environment (CSSP Center for the Study of Social Policy, 2012). Children need to feel comfortable to profit from interventions (II). As soon as such a safe environment is provided for children, they will be more willing to open themselves, share emotions, worries and thoughts. This openness is the base for children to learn and achieve positive outcomes.

A further facilitator identified was the specific intervention setting. As mentioned earlier the setting of the intervention plays an important role (Sjöman et al., 2016). The results of this review show that an effective setting always depends on the person who will receive the intervention and also on the planned outcomes. Thus, it can be chosen between both an individual setting and a group setting. For the group setting in particular, an important facilitator for a positive outcome is the awareness of others, which is part of the social competences (Dobrin & Kállay, 2013). Hence, this finding shows that the social skill of being aware of others at the same time can be a positive outcome and a facilitator for other positive outcomes.

One surprising finding on facilitators was the involvement of licensed professionals. This does not mean that interventions in preschool settings should only be carried out by licensed professionals, but it still has a positive impact on the children's development. However, this facilitator should be interpreted with caution as no comparison was made between licensed professionals or non-licensed professionals carrying out the interventions and the effect on social-emotional outcomes.

4.4 The involvement of family and the environment

The results revealed that limited consideration was given to environmental factors. Literature shows that the environmental factors around a child have a high impact on a child's development (Baker et al., 2003; Bronfenbrenner & Morris, 2006; Claessens, 2012; McCabe & Altamura, 2011). These factors have not been included or mentioned in the studies included. Children who show symptoms of mental disabilities are often affected by environmental factors. Those symptoms often result from negative environmental aspects like poor living conditions or violent surroundings (Baker et al., 2003). Family conditions such as low-income, parental mental illness or domestic violence greatly influence a child's development and behavior as well (Jiang et al., 2017; Ştefan & Miclea, 2010). Thus, to effectively support these children's social and emotional development it is important to consider all these environmental factors when implementing interventions so that the conditions which cause and often sustain social-emotional difficulties are targeted.

Even though parental involvement is important and appreciated for a positive outcome on a child's development (Bratton et al., 2013) this involvement was not considered in the studies. Despite the fact that it might be more difficult to involve parents in preschool-based interventions as they have to work during this time, or they may simply not want to be involved, for sustainability of interventions and

to ensure possible carry over to the home environment it is important that all caregivers be involved (Bratton et al., 2013; Claessens, 2012; CSSP, 2012). It is always beneficial and necessary that parents are informed and somehow involved in the child's activities in preschool, especially when addressing interventions affecting their own child. This involvement may support the parental comprehension of their child's developmental progresses.

The fact that the environmental factors and familial involvement was not focused on in the reviewed studies could mean that behavioral and developmental changes are limited to the preschool setting. This is due to the fact that the child therefore gets used to connect the intervention and behavioral outcomes to the setting in which it has learned them resulting in a lack of carryover to other environments where EBP's occur. This means, as soon as the child goes home they might still display its EBP.

As literature shows, also the active involvement of preschool teachers plays an important role for children (Sjöman et al., 2016) because preschool teachers often turn into a role model and a person of trust for children due to the amount of time they spend together or in the same setting. Children might experience acceptance through close contact and understanding of their preschool teacher which could support their self-confidence and thus also their social and emotional skills. Hence, to use this trust person as a resource and supportive factor in interventions seems to be beneficial. While the teacher's involvement was reported as supportive for the child's social-emotional development in some of the included studies, specific information about their contribution to the intervention was lacking.

A few interventions in this review were not conducted by the preschool teacher as interventions such as CCPT desire a licensed professional. The requirement for licensed professionals to implement specific interventions in preschool environment can be a challenge, especially in low-resourced context or when the preschool team does not contain a licensed professional and the preschool teachers do not have time to search for one. How can preschool teachers and children benefit of effective interventions when a specialist is needed to conduct the intervention? This challenge implicates that these specific interventions should also focus on how preschool teachers can be educated and trained to intervene.

4.5 The intervention setting

As mentioned before the preschool setting is an effective and supportive environment for children who need extra support. Especially when a play-oriented approach is implemented. Preschool presents a child appropriate environment and a place where children are used to play freely and guided (CSSP, 2012). Despite the fact that preschool setting provides an effective atmosphere, the setting, in terms of group or individual is also important since dependent on the needs of a child, either a group or an individual setting can be more supportive for their social-emotional development (Sjöman et al., 2016). In the studies reviewed, both group and individual setting interventions took place. Group interventions support peer interactions, the learning of social skills and the recognition of other emotions, whereas individual setting interventions are more effective for the interaction with the teacher or the recognition and regulation of a child's own emotions. Thus, when interventions are planned, it is always important to consider individual

information about the children to make sure that they are placed in the most effective and helpful setting for their developmental needs and behavioral outcomes.

5 LIMITATIONS

While analyzing the included studies, some limitations have been identified by the researcher. The first, but probably minor limitation is the fact that, even though it needs to be distinguished between therapies and interventions, also studies presenting play therapy were included in this review. This was determined due to the fact that this therapy uses play and is implementable in preschool setting.

Another limitation is the fact that every study used different measurement tools to evaluate the intervention outcomes. These different tools all had different focuses and were also applied at different points in time. For that reason it is difficult to generalize and compare the results of the studies to each other. Furthermore, one study (IV) in this review only measured outcomes at two time points which leads to different limitations such as measurement error as changes cannot be determined by only two points of measurement (Ployhart & Vandenberg, 2010). Therefore, outcomes should be measured at least at three time points to add to the validity of results.

The last identified limitation is also a fact which needs to be considered as a point of awareness for generalization which is that the participants of the studies all had different symptoms of EBD. Thus, outcomes cannot be compared across studies.

6 METHODOLOGICAL ISSUES

The use of a systematic literature review has both strengths and weaknesses. One strength is the systematic structure and detailed approach of this method which makes it more clear and comprehensive for others (Jesson et al., 2011). Furthermore, the use of an extraction protocol for the analysis of the included studies increases the reliability of this process. Another strength of the systematic literature review is the opportunity to identify research gaps. As only a few relevant studies have been found during this systematic review a gap in the research field of this study has been uncovered.

However, there are also some weaknesses. As there is a huge number of databases including educational articles, not all databases were used for this review. For that reason, probably not all relevant studies may have been identified. Furthermore, as all included databases have different research procedures different search words were needed for each. This leads to concerns if the "right" search words were used and also if enough words were included in the review. Even though German studies were searched as well, only English studies were included in this literature review. A few German studies had been found but were excluded as they did not meet the inclusion criteria. Therefore, relevant interventions and studies which were presented in another language than English and German could have been missed. It has to be noted that the author did not conduct a search in German databases which is a further limitation and

could have led to the limited amount of included studies. It should be considered to conduct a search in German databases for future reviews.

The whole review in terms of screening and data extraction was conducted by only one person due to the limited timeframe given for this Master thesis. This is a weakness and could have caused wrong decision making during abstract screening. This review would have been more reliable if a second person could have been included to screen abstracts and extract data in order to ensure greater validity of the results. As the search and screening procedure ended up with only a few relevant studies, no study was excluded because of its quality, which can be seen as another methodological limitation.

The original quality assessment tool was adapted in that questions were added to it to be applicable for this review. As already mentioned, not many studies have been found meeting the inclusion criteria. This was due to the fact that not many play interventions for children with EBD have been found in the used databases.

Only a few studies have been identified and also studies with a low quality were included for this review. The inclusion of low quality articles could have been avoided through changes in the inclusion and exclusion criteria, as especially the inclusion criteria were strictly formulated. Through broader criteria (e.g. no timeframe for publication) the search could have resulted in more relevant studies and thus also in more studies with medium or high quality.

7 FUTURE RESEARCH

The results of this systematic literature review show that few studies have been found displaying play interventions for non-diagnosed preschool children with EBD aged between three to six years. It becomes obvious that more research and also more comprehensive research, including environmental, familial and participation aspects, needs to be done.

Especially the familial and environmental factors have been neglected in the studies, although these aspects are highly important for a child's development and the planning and implementation of interventions. These factors need to be considered in further research referring to the field of play interventions in preschool setting. Also the participation and engagement outcomes need to be taken into account more.

A further suggestion for future research concerns preschool teachers. On the one hand, preschool teachers need to be more involved in the interventions. A few studies already deal with preschool teacher involvement and these studies present positive outcomes through this involvement. This fact supports the need for further active involvement of preschool teachers in interventions processes. These days, the teacher's involvement is mainly limited to assigning children to the intervention and evaluating the outcomes. The next step regarding the integration of preschool teachers is about making them more sensible for identifying children who need interventions, especially children with externalizing EBD, and how they

can support these children in an appropriate manner. Preschool teachers need to be more educated towards options of play intervention implementation.

8 CONCLUSION

The aim of this review was to identify play interventions which support the social-emotional development of preschool children with externalizing and behavioral difficulties.

Even if the number of preschool children displaying externalizing emotional and behavioral difficulties is constantly increasing, it is surprising that only a few play interventions have been developed. Especially as play has been proven to be an effective approach to support those children.

Results show that different interventions with play approach have been developed. Yet, not many studies presenting play interventions could be found. Furthermore, it becomes obvious through these interventions that the use of a play-oriented intervention, especially for preschool children has positive outcomes on their social-emotional development and also decreases EBD symptoms. Factors which influence a child's behavior and development, such as familial and environmental aspects, are considered too little or are not taken into account at all, regardless how important they are. Also, the significance of participation or engagement as further outcomes of the interventions have not been mentioned sufficiently. This points out that further research needs to be done, to also include environmental and familial factors as well as participation and engagement aspects to get a clearer overview on the intervention outcomes and the intervention's effectiveness. Furthermore, preschool teachers should get training to be able to intervene and support children with social-emotional needs.

Nevertheless, the mentioned play-oriented interventions carried out in preschool setting were all successful for the children's social-emotional development and relieving for the preschool teachers, which shows that the implementation of play interventions represent a supportive and useful approach for both, children and professionals.

References

Aguiar, C., & McWilliam, R. A. (2013). Consistency of toddler engagement across two settings. *Early Childhood Research Quarterly*, *28*(1), 102–110. https://doi.org/10.1016/j.ecresq.2012.04.003

Almqvist, L. (2006). *Children's health and developmental delay- Positive functioning inevery-day life*.

Almqvist, L., & Granlund, M. (2005). Participation in school environment of children and youth with disabilities: A person-oriented approach. *Scandinavian Journal of Psychology*, *46*(3), 305–314. https://doi.org/10.1111/j.1467-9450.2005.00460.x

Ashiabi, G. S. (2007). Play in the preschool classroom: Its socioemotional significance and the teacher's role in play. *Early Childhood Education Journal*, *35*(2), 199–207. https://doi.org/10.1007/s10643-007-0165-8

Axline, V. M. (1947). *Play therapy: The inner dynamics of childhood.* Cambridge: Houghton Mifflin Company.

Baker, B. L., McIntyre, L. L., Blancher, J., Crnic, K. A., Edelbrock, C., & Low, C. (2003). Pre-school children with and without developmental delay: Behaviour problems and parenting stress over time. *Journal of Intellectual and Developmental Disability*, *47*(4/5), 217.-230.

Bratton, S. C., Ceballos, P. L., Sheely-Moore, A. I., Meany-Walen, K., Pronchenko, Y., & Jones, L. D. (2013). Head start early mental health intervention: Effects of child-centered play therapy on disruptive behaviors. *International Journal of Play Therapy*, *22*(1), 28–42. https://doi.org/10.1037/a0030318

Bratton, S. C., Ray, D., Rhine, T., & Jones, L. (2005). The Efficacy of Play Therapy With Children: A Meta-Analytic Review of Treatment Outcomes. (1). *Professional Psychology: Research and Practice*, *36*(4), 376–390. https://doi.org/10.1037/0735-7028.36.4.376

Briggs-Gowan, M. J., & Carter, A. S. (2008). Social-Emotional Screening Status in Early Childhood Predicts Elementary School Outcomes. *Pediatrics*, *257*(5), 957–962. https://doi.org/10.1016/j.immuni.2010.12.017.Two-stage

Bronfenbrenner, U., & Morris, P. (2006). The Bioecological Model of Human Development. In *Handbook of Child Psychology, Theoretical Models of Human Development* (pp. 793–828). https://doi.org/10.1002/9780470147658.chpsy0114

Buhs, E. S., Ladd, G. W., & Herald, S. L. (2006). Peer exclusion and victimization: Processes that mediate the relation between peer group rejection and children's classroom engagement and achievement? *Journal of Educational Psychology*, *98*(1), 1–13. https://doi.org/10.1037/0022-0663.98.1.1

Bynner, J. (2000). *Risk and Outcomes of Social Exclusion. Insights from Longitudinal Data*. University of London.

Campbell, S. B., Shaw, D. S., & Gilliom, M. (2000). Early externalizing behavior problems: toddlers and preschoolers at risk for later maladjustment. *Development and Psychopathology*, *12*(3), 467–488. https://doi.org/10.1017/S0954579400003114

Carter, A. S., Briggs-Gowan, M. J., & Davis, N. O. (2004). Assessment of young children's social-emotional development and psychopathology: Recent advances and recommendations for practice. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *45*(1), 109–134. https://doi.org/10.1046/j.0021-9630.2003.00316.x

Caselman, T. D., & Self, P. A. (2008). Assessment instruments for measuring young children's social--emotional behavioral development. *Children & Schools*, *30*(2), 103–115. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=cin20&AN=105771033&site=ehost-live

CCEERC. Quantitative Research Assessment Tool, Camera (2013). Retrieved from http://www.researchconnections.org/content/childcare/understand/research-quality.html

Chen, K. (2006). Social Skills Intervention for Students with Emotional / Behavioral Disorders : A Literature Review from the American Perspective. *Educational Research*, *1*(July), 143–149.

Cheng, Y.-J., & Ray, D. C. (2016). Child-Centered Group Play Therapy: Impact on Social-Emotional Assets of Kindergarten Children. *The Journal for Specialists in Group Work*, *41*(3), 209–237. https://doi.org/10.1080/01933922.2016.1197350

Claessens, A. (2012). Kindergarten child care experiences and child achievement and socioemotional skills. *Early Childhood Research Quarterly*, *27*(3), 365–375. https://doi.org/10.1016/j.ecresq.2011.12.005

Cooper, J. L., Masi, R., & Vick, J. (2009). *Social-emotional Development in Early Childhood What Every Policymaker Should Know*. *Young Children*. Retrieved from http://www.nccp.org

Corbett, B. a., Constantine, L. J., Hendren, R., Rocke, D., & Ozonoff, S. (2010). Examining executive functioning in children with autism spectrum disorder, attention deficit hyperactivity disorder and typical development. *Psychiatry Research*, *166*(2–3), 210–222. https://doi.org/10.1016/j.psychres.2008.02.005.Examining

Corsaro, W. A. (1988). Peer Culture in preschool. *Theory into Practice*, *27*(1), 19–24.

Crnic, K., Hoffman, C., Gaze, C., & Edelbrock, C. (2004). Understanding the emergence of behavior problems in young children with developmental delays. *Infants and Young Children*, *17*(3), 223–235.

CSSP Center for the Study of Social Policy. (2012). *Promoting Children ' s Social , Emotional and Behavioral*

Health. Retrieved from http://www.cssp.org/policy/papers/Promote-Childrens-Social-Emotional-and-Behavioral-Health.pdf

Cullinan, D. (2004). Classification and Definition of Emotional and Behavioral Disorders. In S. R. Rutherford, R. B., Quinn, M. M., & Mathur (Ed.), *Handbook of research in emotional and behavioral disorders* (pp. 32–53). New York: The Guilford Press.

Denham, S. A. (2006). Social-emotional competence as support for school readiness: What is it and how do we assess it? *Early Education and Development*, *17*(1), 57–89. https://doi.org/10.1207/s15566935eed1701

Denham, S. A., Blair, K. A., DeMulder, E., Levitas, J., Sawyer, K., Auerbach-Major, S., & Queenan, P. (2003). Preschool emotional competence: pathway to social competence? *Child Development*, *74*(1), 238–256. https://doi.org/10.1111/1467-8624.00533

Denham, S. A., McKinley, M., Couchoud, E. A., & Holt, R. (1990). Emotional and Behavioral Predictors of Preschool Peer Ratings. *Child Development*, *61*(4), 1145–1152.

Denham, S. A., Workman, E., Cole, P. M., Weissbrod, C., Kendziora, K. T., & Zahn-Waxler, C. (2000). Prediction of externalizing behavior problems from early to middle childhood: The role of parental socialization and emotion expression. *Development and Psychopathology*, *12*(1), 23–45.

Diken, I. H., & Rutherford, R. B. (2005). First step to success early intervention program: A study of effectiveness with Native-American children. *Education & Treatment of Children*, *28*(4), 444–465. Retrieved from http://search.proquest.com.ezp.lib.unimelb.edu.au/docview/620984252?accountid=12372%5Cnhttp://sfx.unimelb.hosted.exlibrisgroup.com/sfxlcl41?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&genre=article&sid=ProQ:ProQ:psycinfo&atitle=First+step

Dobrin, N., & Kállay, É. (2013). the Investigation of the Short-Term Effects of a Primary Prevention Program Targeting the Development of Emotional. *Cognitie, Creier, Comportament/Cognition, Brain, Behavior*, *XVII*(1), 15–34.

Domitrovich, C. E., Cortes, R. C., & Greenberg, M. T. (2007). Improving young children's social and emotional competence: A randomized trial of the preschool "PATHS" curriculum. *Journal of Primary Prevention*, *28*(2), 67–91. https://doi.org/10.1007/s10935-007-0081-0

Else, P. (2009). *The Value of Play*. Bloomsbury Academy Publishing.

Foulkrod, K., & Davenport, B. R. (2010). An examination of empirically informed practice within case

reports of play therapy with aggressive and oppositional children. *International Journal of Play Therapy*, *19*(3), 144–158. https://doi.org/http://dx.doi.org/10.1037/a0020095

Furlong, M. J., Morrison, G. M., & Jimerson, S. r. (2004). Externalizing Behaviors of Aggression and Violence and the School Context. In S. R. (Eds.). Rutherford, R. B., Quinn, M. M., & Mathur (Ed.), *Handbook of research in emotional and behavioral disorders* (pp. 243–251). New York: The Guilford Press.

Geurts, H. M., Verté, S., Oosterlaan, J., Roeyers, H., Hartman, C. A., Mulder, E. J., … Sergeant, J. A. (2004). Can the Children's Communication Checklist differentiate between children with autism, children with ADHD, and normal controls? *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *45*(8), 1437–1453. https://doi.org/10.1111/j.1469-7610.2004.00326.x

Goldstein, J. (2012). *Play in Children ' S Development , Health and Well-Being. Toy Industries of Europe. Brussles*.

Guralnick, M. J. (1997). Effectiveness of early intervention for vulnerable children: a developmental perspective. *American Journal of Mental Retardation : AJMR*, *102*(4), 319–345. https://doi.org/10.1352/0895-8017(1998)102<0319:EOEIFV>2.0.CO;2

Harbin, G. L., McWilliam, R. A., & Gallagher, J. J. (2000). Services for Young Children with Disabilities and Their Families. *Handbook of Early Childhood Intervention*, 387–415. https://doi.org/http://dx.doi.org/10.1017/CBO9780511529320.020

Henricks, T. S. (2008). The Nature of Play: An Overview. *American Journal of Play*, *1*(2), 157–180.

Homeyer, L. E., & Morrison, M. O. (2008). Play Therapy: Practice , Issues , and Trends. *American Journal of Play*, *1*(2), 210–228.

Jamison, K. R., Forston, L. D., & Stanton-Chapman, T. L. (2012). Encouraging Social Skill Development through Play in Early Childhood Special Education Classrooms. *Young Exceptional Children*, *15*(2), 3–19. https://doi.org/10.1177/1096250611435422

Jesson, J., Matheson, L., & Lacey, F. M. (2011). The Systematic Review. In *Doing your literature review: Traditional and systematic techniques* (pp. 103–130). Sage.

Jiang, Y., Granja, M. R., & Koball, H. (2017). *Basic Facts About Low-Income Children*. Retrieved from http://www.nccp.org/publications/pdf/text_1172.pdf

Joseph, G. E., & Strain, P. S. (2003). Comprehensive evidence-based social-emotional curricula for young children: An analysis of efficacious adoption potential. *Topics in Early Childhood Special Education*, *23*(2), 62–73. https://doi.org/10.1177/02711214030230020201

Kariuki, M. W., Chepchieng, M. C., Mbugua, S. N., & Ngumi, O. N. (2007). Effectiveness of Early

Childhood Education Programme in Preparing Pre-School Children in Their Social-Emotional Competencies at the Entry to Primary One. *Educational Research and Reviews*, *2*(2), 26–31. Retrieved from http://oxfordsfx.hosted.exlibrisgroup.com/oxford?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&genre=article&sid=ProQ:ProQ%253Aeric&atitle=Effectiveness+of+Early+Childhood+Education+Programme+in+Preparing+Pre-School+Children+in+Their+Social

Kauffman, J. M., Brigham, F. J., & Mock, D. R. (2004). Historical to Contemporary Perspectives on the field of Emotional and Behavioral Disorders. In S. R. Rutherford, R. B., Quinn, M. M., & Mathur (Ed.), *Handbook of research in emotional and behavioral disorders* (pp. 15–31). New York: Rutherford, R. B., Quinn, M. M., & Mathur, S. R. (Eds.).

Kendziora, K. T. (2004). Early Intervention for Emotional and Behavioral Disorders. In S. R. (Eds.). Rutherford, R. B., Quinn, M. M., & Mathur (Ed.), *Handbook of research in emotional and behavioral disorders* (pp. 327–351). New York: The Guilford Press.

Landreth, G., & Bratton, S. (1998). Play therapy. *Counseling and Human Development*, *31*(1), 1.

Largo, R. H. (2012). *Kinderjahre. Die Individualität des Kindes als erzieherische Herausforderung* (23.). München: Piper.

Matson, J. L., & Fodstad, J. C. (2007). Teaching Social Skills to Developmentally delayed Preschoolers. In *Play therapy for preschool children.* (pp. 301–322). Schaefer, C.E. https://doi.org/10.1037/12060-014

Mavergames. (2013). Covidence (Systematic Review Software).

Maynard, C. N., Adams, R. A., Lazo-Flores, T., & Warnock, K. (2009). An examination of the effects of teacher intervention during sensory play on the emotional development of preschoolers. *Family and Consumer Sciences Research Journal*, *38*(1), 26–35. https://doi.org/http://dx.doi.org/10.1111/j.1552-3934.2009.00003.x

McCabe, P. C., & Altamura, M. (2011). Empirically Valid Strategies to Improve Social and Emotional Competence of Preschool Children. *Psychology in the Schools*, *48*(5), 513–540. https://doi.org/10.1002/pits.20570

Piaget, J. (1962). *Play, dreams and imitation.* New York: Norton.

Ployhart, R., & Vandenberg, R. (2010). Longitudinal Research: The Theory, Design, and Analysis of Change. *Journal of Management*, *36*(1), 94–120. https://doi.org/10.1177/0149206309352110

Powell, D., Dunlap, G., & Fox, L. (2006). Prevention and Intervention for the Challenging Behaviors of Toddlers and Preschoolers. *Infants & Young Children*, *19*(1), 25–35.

https://doi.org/10.1097/00001163-200601000-00004

Ramey, C. T., & Ramey, S. L. (1998). Early Intervention and Early Experience. *American Psychologist*, *53*(2), 109–120. https://doi.org/10.1037/0003-066X.53.2.109

Richert, C. (2016). *Interventions influencing mainstream pre-service teachers ' attitudes towards inclusion A systematic literature review from 2000 to 2015*.

Rogers, C. (1942). *Counseling And Psychotherapy - Newer Concepts in Practice*. Houghton Mifflin Company.

Santer, J., & Griffiths, C. (2007). *Free play in early childhood. A literature review* (Vol. 1). National Children's Bureau.

Schmitt, S. A., Flay, B. R., & Lewis, K. (2014). A Pilot Evaluation of the "Positive Action" Prekindergarten Lessons. *Early Child Development and Care*, *184*(12), 1978–1991. https://doi.org/10.1080/03004430.2014.903942

Sjöman, M., Granlund, M., & Almqvist, L. (2016). Interaction processes as a mediating factor between children's externalized behaviour difficulties and engagement in preschool. *Early Child Development and Care*, *186*(10), 1649–1663. https://doi.org/10.1080/03004430.2015.1121251

Sohns, A. (2010). *Frühförderung. Ein Hilfesystem im Wandel*. Stuttgart: Kohlhammer GmbH.

Ştefan, C. A., & Miclea, M. (2010). Prevention programmes targeting emotional and social development in preschoolers: current status and future directions. *Early Child Development and Care*, *180*(February 2015), 1103–1128. https://doi.org/10.1080/03004430902830263

Vancraeyveldt, C., Verschueren, K., Van Craeyevelt, S., Wouters, S., & Colpin, H. (2015). Teacher-reported effects of the Playing-2-gether intervention on child externalising problem behaviour. *Educational Psychology*, *35*(4), 466–483.

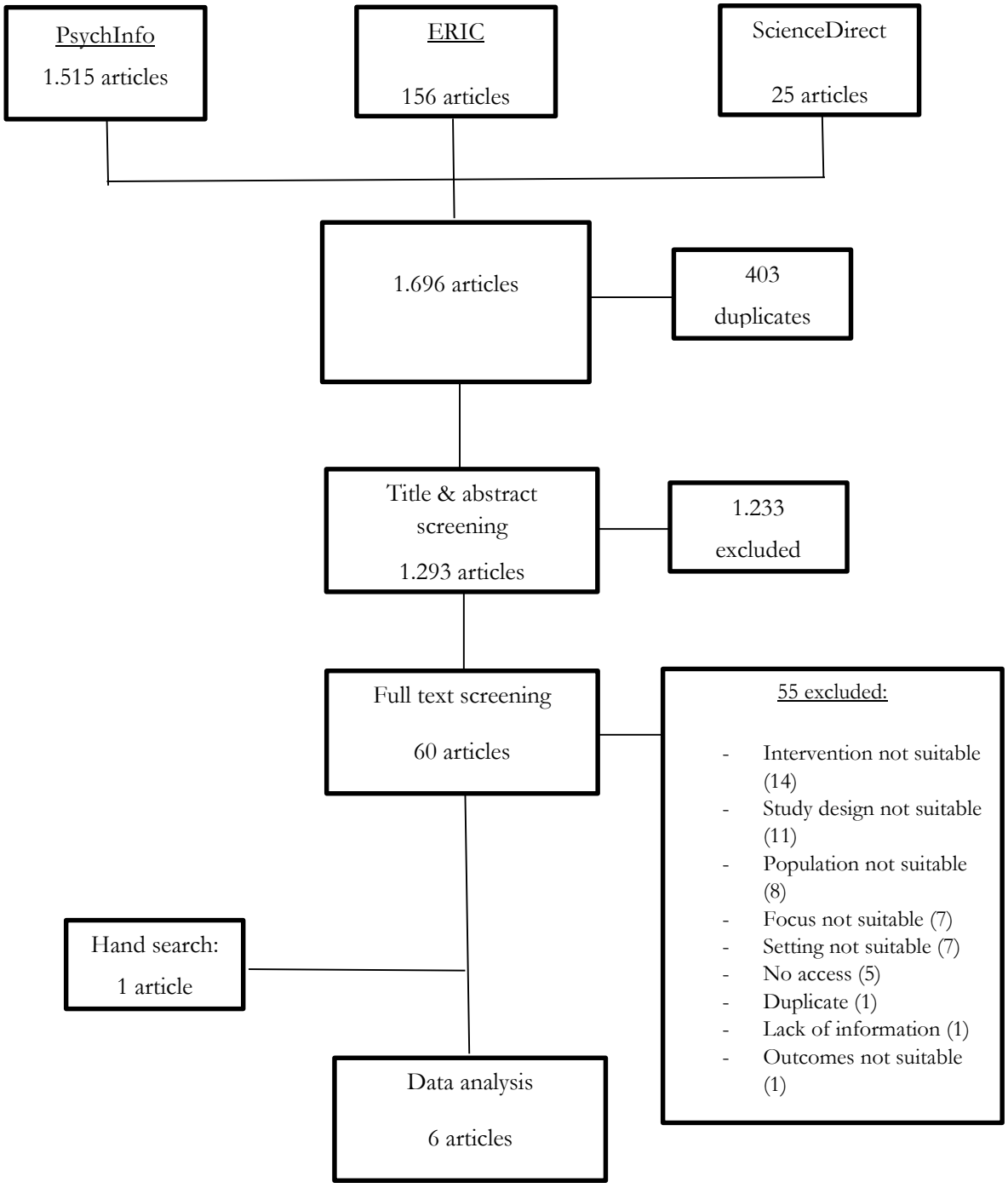
VanFleet, R., Sywulak, A. E., & Caparosa Sniscak, C. (2011). *Child-Centered Play Therapy*. Guilford Press. https://doi.org/10.1002/9781119140467.ch5

Waliski, A. D., & Carlson, L. A. (2008). Group Work with Preschool Children: Effect on Emotional Awareness and Behavior. *Journal for Specialists in Group Work*, *33*(1), 3–21. https://doi.org/10.1080/01933920701476714

WHO. (2007). *International Classification of Functioning, Disability, and Health: Children & Youth Version: ICF-CY*. https://doi.org/10.1017/CBO9781107415324.004

Appendices

Appendix A – Flow chart



Appendix B – Quality assessment tool and results

Table 7

Quality Assessment Tool

Assessment tool used for the rating of the articles quality
Publication and background
1. Peer review. Was the article published in a peer-reviewed journal? [1] Yes [0] No 2. Aim and research question(s). Where the aim and research question(s) stated in the study? [2] Both the aim and research question(s) are stated clearly. [1] The aim is stated clearly but there are no research question(s) stated. [0] There is no aim or research question(s) stated.
Method
3. Information about the intervention. Did the article contain sufficient information about the intervention? If so, was that intervention stated clearly? Was it enough information to understand the intervention? [2] The information about the intervention was sufficient and clear. [1] The article contain some information about the intervention but was not sufficient enough. [0] The article did not include any information regarding the intervention. 4. Did the study specifically mention a play based intervention approach? [1] Yes [0] No 5. Study design. Was the study a randomized controlled trial (RCT)? Or was it a quasi-experimental design? [2] The study was a RCT. [1] The study was a quasi-experimental design. [0] No information was given about the design of the study. 6. Control group. Did the study have a control group? [1] Yes [0] No 7. Follow-up. Did the study do a follow-up after the post test to see if there had been any changes since the intervention took place? [1] Yes [0] No 8. Population. Does the population that was eligible to be selected for the study include the entire population of interest? Or, is the eligible population a selective subgroup of the population of

interest?

[2] Eligible population includes entire population of interest or substantial portion of it.

[1] Population represents a limited, atypical, or selective subgroup of the population of interest.

[0] No description of the population

9. Randomized selection of participants. Were study participants randomly selected for the study? Or, did study participants volunteer (nonrandom)? Or, were they located through specific organizations (nonrandom) or through acquaintances of the researchers (nonrandom)?

   [2] Random selection.

   [1] Nonrandom selection.

   [0] No description of the sample selection process.

10. Sample size. How many participants were selected for the study? Does the sample include enough participants from key subgroups to accurately assess subgroup differences? (In comparison to other studies)

    [2] Sample size larger than similar studies.

    [1] Sample size the same as similar studies.

    [0] Sample size smaller than similar studies or sample size not given

11. Response and attrition rate. What proportion of the selected sample completed the study?

    [2] High response or participation rate [over 65% response rate, over 90% participated in follow-up studies).

    [1] Moderate to low response rate (response rates of less than 65%).

    [0] No information on response rate or participation rate.

Measurement

12. Main variables or concepts. Are each of the main variables or concepts of interest described fully? Can the main variables or concepts be matched to the variables in the tables?

    [2] Accurately described and can be matched.

    [1] Vague definition or cannot be matched.

    [0] No definition of main variables or concepts.

13. Operationalization of concepts. Did the authors choose variables that make sense as good measures of the main concepts in the study? Have these variables been used in previous studies or are they an improvement over previous studies?

    [2] Key concepts are measured with variables that make sense. Or, variables have either been previously used in research or are improvements over previous measures.

    [1] Key concepts are measured with variables that do not make sense, and variables have not been used in previous research studies.

    [0] Variable operationalization is not discussed.

Analysis

14. Numeric tables. Are the means and standard deviations/standard errors for all the numeric variables presented?

    [2] Means and standard deviations/standard errors are presented.

    [1] Means, but no standard deviations/standard errors are presented.

    [0] Neither means or standard deviations/standard errors are presented.

15. Missing data. Is the number of cases with missing data specified? Is the statistical procedure(s) for handling missing data described?

    [2] Number of cases with missing data are specified and the strategy for handling missing data is described.

    [1] Number of cases with missing data specified, but these cases are removed from the analysis.

    [0] Missing data issues are not discussed.

16. Appropriateness of statistical techniques. Does the study describe the statistical technique used? Does the study explain why the statistical technique was chosen? Does the study include caveats about the conclusions that are based on the statistical technique?

    [2] Statistical techniques, reasons for choosing technique and caveats are fully explained.

    [1] Statistical technique is explained, but reasons for choosing technique or the caveats are not included

    [0] Statistical technique, reasons for choosing and caveats are not explained.

17. Omitted variable bias. Could the results of the study be due to alternative explanations that are not addressed in the study?

    [2] All important explanations are included in the analysis.

    [1] Important explanations are omitted from the analysis.

    [0] Variables and concepts included in the analysis are not described in sufficient detail to determine whether key alternative explanations have been omitted.

18. Analysis of main effect variables. Are coefficients for the main effect variables in the statistical models presented? Are the standard errors of these coefficients presented? Are significance levels or the results of statistical tests presented?

    [2] Model coefficients and standard errors or hypothesis tests for the main effects variables are presented.

    [1] Either model coefficients or hypothesis tests for the main effects variables are presented.

    [0] Neither estimated coefficients or standard errors for the main effects variables are presented.

Note. Adapted from the Quantitative Research Assessment Tool (CCEERC, 2013)

Table 8

Results of the quality assessment of the reviewed articles

	I	II	III	IV	V	VI
High (25 to 32 points)					X	
Medium High (17 to 24 points)	X	X				X
Medium (9 to 16 points)				X		
Low (0 to 8 points)			X			
1. Peer reviewed	1	1	1	1	1	1
2. Aim and research questions	2	2	1	1	2	2
Method						
3. Information about the intervention	2	2	2	2	2	2
4. Play intervention	1	1	1	1	1	1
5. Study design	1	1	1	1	1	1
6. Control group	1	1	0	1	1	0
7. Follow-up study	0	1	0	0	0	1
8. Population	1	1	1	1	1	1
9. Randomized selection of participants	1	0	0	1	1	1
10. Sample size	1	1	0	0	2	0
11. Response and attrition rate	2	0	0	0	2	0
Measurement						
12. Main variables or concepts	2	2	0	1	2	1
13. Operationalization of concepts	2	2	0	0	2	2
Analysis						
14. Numeric tables	2	2	0	0	2	2
15. Missing data	1	0	0	0	2	1
16. Appropriateness of statistical techniques	2	2	0	1	2	2

17. Omitted variable bias	2	2	0	0	2	2
18. Analysis of main effect variables	0	1	0	0	0	1
Total points	24	22	7	11	26	21

Note. SIN = Study Identification Number. The quality assessment tool can be found in Appendix C

Appendix C – Extraction Protocol

Table 9

Protocol used for data extraction

Protocol used for analysis	
General information	Article number:
	Authors:
	Year:
	Title:
	Language:
	Country:
	Study rationale:
	Study purpose:
	Research question/ Hypothesis:
Participant Characteristics	Sample size:
	Gender (m/f):
	Age of children:
	Measurement of EBD:
	Symptoms of EBD:
Information about the intervention	Intervention/Support/Approach:
	Spatial setting in which the intervention was implemented:
	Individual or group setting:
	Number of sessions:
	How many times per week did the intervention took place:
	Duration of one session:
	How long did the intervention last:
	Who carried the intervention out:
	Inclusive approach (yes/no):
	Main purpose of the intervention:
	Measures to enhance treatment fidelity:
	Involvement of parents/family/environment:
	Facilitators:
	Control group:
Outcomes of the intervention	Outcomes on social-emotional development (focus on externalized behavior):
	Other outcomes:
	Measurement of outcomes:

	Time points of measurement:
Data collection	Observation:
	Questionnaire:
	Self-report:
	Tested:
Study design	Qualitative:
	Quantitative:
	Mixed:
	Other:
Study results	Study conclusion:
	Limitations:

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Appendix D - Measurement tools evaluating intervention outcomes

Table 10

Table displaying the study's measurement tools

	Article					
	Bratton et al. (2013)	Cheng & Ray (2016)	Jamison et al. (2012)	Maynard et al. (2009)	Vancraeyveldt et al. (2015)	Waliski & Carlson (2008)
Measurement Tool						
Tool	Caregiver–Teacher Report Form **(C–TRF)** --> in this case: Externalizing score	Social Emotional Assets and Resilience Scales (SEARS): **SEARS-P** (for parents); **SEARS-T** (for teachers)	No information	Expressed Emotion Identification Tool (**EEIT**); Behavioral Observation Tally Sheet (**BOTS**)	Adapted version of the Preschool Behaviour Questionnaire **(PBQ);** Parent and a Teacher Questionnaire **(PTQ)**	Emotional identification measure **(EIM)** ; Child behavior checklist **(CBC)**
Purpose	To measure externalizing and internalizing behavior	To assess the social-emotional competencies	No information	**EEIT:** "To assess each child's ability to identify verbally expressed emotions from a series of pictures" (p.29); **BOTS:** To record the observed child behavior	**PBQ:** To observe Externalizing Problem behavior (EPB); **PTQ:** To assess family and teacher background	**EIM:** To assess the increase in emotional awarness; **CBC:** To measure behavior changes

Description	"Teacher-reported measure of child behavior problems in children 1 and a half to 5 years of age. [...] Provides scores in the clinical, borderline, and normal range for three domains: Externalizing, Internalizing, and Total Problems. The domains are composed of seven syndrome subscales [...] 3-point frequency scale on 100 items [...] to indicate the presence and severity of behavioral and emotional symptoms. A decrease in score indicates improvement" (p.32)	"Strength-based, cross-informant instrument for children and adolescents from 5 to 18 years old [...] based on a three-tiered prevention model (Merrell, 2011) which served as the criteria for participant qualifications and outcome interpretations in the current study" (p.215) (High Functioning, At-Risk, High Risk); "The **SEARS–P** consists of 32 items, uses a 4 point response format (i.e., never, sometimes, often, always), and focuses specifically on home and community contexts (Merrell, 2011). The SEARS–P reflects parents' perceptions of their children's social-emotional competencies" (p.215); "The **SEARS–T** includes 41 items using 4-point response format (i.e., never, sometimes, often, always) and is designed to measure teachers' perspectives	No information	**EEIT:** "The tool consists of series of 18 pictures with three representing each of the six common emotions: happy, sad, mad, scared, surprised, and disgusted. […] Each emotion was represented by a photograph of a boy, a photograph of a girl, and an illustration with no contextual clue. The illustrations were selected from the Resources: Teaching Social Emotional Skills by Hemmeter (2008)" (p.29); (+1) point accurate answer - (-1) point nonresponsive answer, **BOTS:** "A separate sheet was prepared for each child. Specific measured behaviors included negative externalizing behaviors for self-regulation and aggression, as well as positive externalizing behaviors for nonaggressive problem solving." (p.30)	**PBQ:** " The questionnaire contains age-appropriate descriptions of behaviour problems in young children. The teachers rated children's behaviour on a 4-point Likert scale ranging from 1 (Absolutely not characteristic) to 4 (Very characteristic). The Externalizing scale of this instrument (14 items) measures several indicators of child EPB, such as being a busy child, being stubborn, and being disobedient." (p.14); **PTQ:** No further information	**EIM:** "Pictures representing various common emotions. Sixpictures representing happy, sad, angry, scared, surprised, and dislike" (p.17); "Participant responses considered "correct" for each picture presented were assigned a score of "1" and participant responses considered "incorrect" for each picture presented were assigned a score of "0." Each participant was given a score ranging from 0 to 6 based on how many correct responses were given for the six pictures" (p.7); **CBC:** "Caregiver-teacher report form for ages 2–5" (p.7); "an empirically based assessment," (p.7); "The CBC obtains ratings by daycare providers and preschool teachers on 100 problem items. The resulting profile includes seven syndromes in addition to internalizing,

Measured Variables	Disruptive behavior	**SEARS-P:** Self-Regulation/Responsibility (22 items), Social Competence (10 items), and Empathy (7 items); **SEARS-T:** Self-Regulation (13 items), Social Competence (12 items), Empathy (6 items), and Responsibility (10 items)	No information	Emotions: Sad, happy, mad scared, surprised and disgusted	EPB in general	**EIM:** Emotions: Happy, sad, angry, scared, surprised, and dislike; **CBC:** "scales for internalizing include anxious=obsessive (10 items), depressed=withdrawn (18 items), and fears (6 items); externalizing syndromes include attention problems (17 items) and aggressive behavior (23 items); and the three generalized syndromes are somatic problems (6 items), immature (10 items), and other (10 items)." (p.7)
Reliability	"The overall mean test–retest reliability score for the C–TRF was established at .81 (Achenbach & Rescorla, 2000). Test–retest reliability estimates for domain scores are as follows: Internalizing Problems: r .77; Externalizing Problems: r .89; and Total Problems: r .88 (Achenbach & Rescorla, 2000)." (p.32)	"Reliability estimates for the **SEARS–P** were considered strong by Merrell (2011)" (p.215); considered strong reliability for **SEARS-T**	No information	**EEIT:** Further research is needed to determine relaibility; **BOTS:** "During Weeks 2 and 3 of the semester, when pre-intervention data were being gathered the second researcher used the BOTS instrument to record data from 20% of the children. This was done as a measure for inter-rater reliability." (p.30)	**PBQ:** "High internal consistency (alpha ≥.91), interrater agreement (r = .91), and high test-retest stability (r ≥.84) have been found for this scale in community and clinical samples" (p.14); **PTQ:** No further information	**EIM:** No accompanying realiability, as tool researcher-developed; **CBC:** "According to more recent reliability data, the mean stability for the CBC at 2 months is .65; the test-retest reliability ranged from .85–.90 for 8- or 16-day intervals; and mean cross-informant agreement for this particular instrument has been measured at .65" (p.8)

Validity	"Strong validity evidence for C–TRF scores has been well established through more than 6,000 studies (Achenbach & Rescorla, 2000)." (p.32)	**SEARS-P:** "Strong convergent construct validity with two other strength-based assessments (SSRS & HCSBS)" (p.216); "no reliability or validity procedures were reported" (p.216); **SEARS-T:** "Important underlying psychological constructs and strong convergent construct validity with two other strength-based assessments: (SSRS & SSBS-2)" (p.216)	No information	**EEIT:** Further research is needed to determine vadility, **BOTS:** "Two expert judges [...] were consulted independently and assisted in establishing content validity of the instrument." (p.30)	**PBQ:** "Concurrent and predictive validity have been shown" (p.14); **PTQ:** No further information	**EIM:** No accompanying validity, as tool researcher-developed; **CBC:** "Criterion and construct validity are extensively examined and supported through multiple regression analyses, and correlation with similar instruments such as the Conners' Rating Scales-Revised, the DSM-IV, and the BASC—yielding moderate to substantial correlation values" (p.8)
How many times	3 x	3 x	No information	2 x	3 x	3 x
Timepoints of measurement	Before the intervention, after the 10th session and one week after completition of the intervention	Before the intervention, directly after the intervention and one month after the intervention	No information	Before the intervention and directly after the intervention	Before the intervention, in the middle of the intervention and after the intervention	**EIM:** Before the intervention, directly after the intervention and four weeks follow-up; **CBC:** Before the intervention, five weeks after implementing the intervention and eight weeks follow-up
Reasons for measurement	To assign children to the study and to evaluate the outcome	To assign children to the study and to evaluate the outcome	No information	**EEIT:** "to determine to what extent differences existed in children's ability to identify six common emotions: happy, sad, mad, scared, surprise, and disgust" (p.32)	To evaluate the outcome	To evaluate the outcome

Analysis	"A 2 (group) by 3 (repeated measures) split plot ANOVA was performed on the dependent variable, C–TRF Externalizing, to determine if the CCPT and RM groups performed differently across time" (p.34)	"Two factorial analysis of variance (ANOVA) tests with the Total scores on the SEARS–P and SEARS–T as the dependent variables, two groups (i.e., intervention and waitlist control groups) as independent between-subjects variable, and three points of time as independent within-subjects variable" (p.220)	No information	No information	"Effects on EPB were tested using latent growth modeling in Mplus 6. A growth model with an intercept and a linear slope was specified. Model fit was determined through the Model Chi-Square, the Comparative Fit Index, the Tucker-Lewis index, the Root-Mean-Square Error of Approximation, and the Standardized Root Mean Squared Residual." (p.15)	**EIM:** "To account for the multiple analyses and to reduce Type I error, a Bonferonni correction was applied to the alpha level, yielding a corrected value of .025." (p.12); "Two paired sample t-tests were executed for this portion of the study. The first examined the difference in group means on the EIM prior to and after the classroom=group intervention. The second test examined differences in group means from post-intervention administration to follow-up administration to determine whether gains were maintained." (p.12); **CBC:** "Multivariate analyses of variance (MANOVA) with repeated measures were conducted to assess if there were differences between participant scores pre-intervention, post-intervention, and follow-up on the CBC."

Outcomes	Alpha level for significace of mean difference .05; p<.001; **Externalizing** --> **Mean:** pre-63.00; mid-62.22; post-58.33; **SD:** pre-5.51; mid-5.54; post-6.49; **Aggression** --> **Mean:** pre-63.55; mid-62.14; post-58.48; **SD:** pre-6.97; mid-7.26; post-6.34 **--> significant decrease in disruptive behavior problems**	**SEARS–P Total--> Mean:** pre-39.30; post-44.40; follow-up-43.40; **SD:** pre-5.36; post-7.55; follow-up-9.29 **SEARS–T Total--> Mean:** pre-33.83; post-37.94; follow-up-39.33; **SD:** pre-6.14; post-6.80; follow-up-6.56	No information	**EEIT:** "Results indicate that the children's ability to identify the emotion "sad" significantly changed over time (p = .007) regardless of the group to which they belonged. No changes were found between control and experimental groups on the pre- and posttests on children's ability to identify happy, mad, scared, surprised, and disgusted" (p.32); **BOTS:** "No statistically significant differences were found between the control and experimental groups" (p.33)	"High stability over time was found for child EPB. After the first intervention part, a significant effect on EPB was found. Moreover, after the intervention as a whole, intervention children had a significantly lower mean level of EPB in comparison to the control children." (p.15)	**EIM:** Alpha level for significance of mean difference .05; "participants were more able to correctly identify feeling pictures after the group intervention than prior to intervention." (p.12) **CBC:** Externalizing: **Mean:** pre-48.80, post-44.73, follow-up-44.93; **SD:** pre-8.695, post-8.353, follow-up-9.277 Attention problems: **Mean:** pre-53.20, post-52.13, follow-up-52.47; **SD:** pre-5.441, post-4.068, follow-up-4.998 Aggression: **Mean:** pre-53.27, post-51.60, follow-up-52.40; **SD:** pre-3.807, post-2.613, follow-up-3.979
Further measurement tools	Video recording the sessions ("random treatment fidelity checks" (p.33)) and weekly group and triadic supervision ("staffing child-related concerns from a child-centered perspective" (p.33))	Video recording and weekly supervisions	No information	No	A two hour consultation and feedback on video recorded sessions --> to improve outcomes	No

Appendix E – Information about interventions

Table 11

Table displaying intervention information

Author and Year	Sample	Intervention	Setting	Purpose	Outcome	Quality
Bratton, Sue C. ; Ceballos, Peggy L.; Sheely-Moore, Angela I.; Meany-Walen, Kristin; Pronchenko, Yulia; Jones, Leslie D. (2013)	Experimental group: 27 preschool children aged 3-4 years with disruptive behavior Active control group: 27 preschool children aged 3-4 years with disruptive behavior	Child Centered Play Therapy (CCPT)	Preschool (extra room)	"Reduce externalized problem behaviors through a play based and self-directed approach by the use of provided play materials" (p.37)	Significant decrease in disruptive behavior problems; decreasing aggressions and decreasing attention problems	Medium High
Cheng, Yi-Ju; Ray, Dee C. (2016)	Experimental Group: 21 preschool children aged 5-6 years with apparent or emerging deficits in social and emotional development Waitlist control group: 22 preschool children aged 5-6 years with apparent or emerging deficits in social and emotional development	Child Centered Group Play Therapy (CCGPT)	Preschool (extra room)	Support children struggling with socially related difficulties. "Support the children's emotional, social, and learning skills through interactions with group members" (p.210)	Positive changes in social-emotional assets, social competence, and empathy	Medium High

Jamison. Kristen R.; Forston, Lindsay D.; Stanton-Chapman, Tina L. (2012)	One male preschool target child aged 3 years with difficulties in learning and using social skills	Buddy-Program	Preschool (classroom)	Increase social skills in peer interactions	Only possible outcomes mentioned	Low
Maynard, Christine N.; Adams, Rebecca A.; Lazo-Flores, Thelma; Warnock, Kresha (2009)	Experimental group: 14 preschool children aged between 3-5 years with aggressive behaviors Control group: 9 preschool children aged between 3-5 years with aggressive behaviors	Teacher Intervention During Sensory Play	Preschool (classroom)	Support children's emotional development	No significant differences between the two groups; "Sensory play effective approach to address the child's emotional development" (p.33)	Medium
Vancraeyveldt, C.; Verschueren, K.; Van Craeyevelt, S.; Wouters, S.; Colpin, H. (2015)	Experimental group: 89 teacher-child dyads. Children with high level of EBD Control group: 86 teacher-child dyads. Children with high level of EBD	Playing-2-gether	Preschool (either in classroom or in extra room)	"Reduce externalizing problem behavior, improve child-teacher communication and relation, increase positive emotional experiences" (p.1)	Significantly lower mean level of externalizing EBD; significant decrease in EBD	High
Waliski, A. D.; Carlson, L. A. (2008)	15 preschool children aged between 4-5 years	Group Intervention	Preschool	Increase emotional skills, decrease aggressive behavior	"Participant behavior, as measured by the CBC, differed significantly from pre to post-intervention." (p.13). Significant change in externalized problem behaviors	Medium High