

Review Article

The use of the Child Initiated Pretend Play Assessment - ChIPPA: a scoping review

O uso da Avaliação do Brincar de Faz de Conta Iniciado pela Criança – ChIPPA: uma revisão de escopo

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Abstract

Introduction: Playing is an important child occupation, and its assessment should be part of the therapeutic process to analyze the child's occupational performance and plan interventions based on this occupation. The Child-Initiated Play Make-A-Play Assessment (ChIPPA) has already been translated, cross-culturally adapted, and validated for the Brazilian population. **Objective:** To review the scope of ChIPPA and identify how it has been described and addressed in national and international literature. **Method:** Between January and June 2021, articles were searched in the PubMed, Scopus, BVS, ERIC, CINAHL, Web of Science, and PsycInfo databases, using search strategies with different syntaxes according to the method of each. basis: Chippa OR “Child-Initiated Pretend Play Assessment”, ChIPPA OR “Child-Initiated Pretend Play Assessment” OR “Child-Initiated Pretend Play Assessment” OR “Child-Initiated Pretend Play Assessment”, Chippa OR “Child-Initiated Pretend Play Assessment” AND Publication Type: Journal. **Results:** 25 articles were found, between 2000 and 2021, 971 children between 3 and 12 years of age, with typical and atypical development, developed in analytical observational (cross-sectional and cohort) and experimental studies; methodological (validation of the instrument and cultural adaptation of the instrument); and descriptive. **Conclusion:** The ChIPPA has been described in the literature as an assessment that allows correlating pretend to play with preschoolers' verbal, social, academic, and sensory processing skills. It is a practical, valid, and reliable outcome measure, allowing the assessment of typical and atypical children in different contexts and countries, including Brazil.

Keywords: Occupational Therapy, Play, and Playthings, Evaluation of Results of Therapeutic Interventions, Literature Review.

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Resumo

Introdução: O brincar é uma importante ocupação infantil e sua avaliação deve fazer parte do processo terapêutico para analisar o desempenho ocupacional da criança e planejar intervenções embasadas nessa ocupação. A Avaliação do Brincar de Faz de Conta Iniciado pela Criança (ChIPPA) já foi traduzida, adaptada transculturalmente e validada para a população brasileira. **Objetivo:** Realizar uma revisão do escopo sobre a ChIPPA e identificar como tem sido descrita e abordada na literatura nacional e internacional. **Método:** Entre janeiro e junho de 2021, foi realizada a busca dos artigos nas bases de dados PubMed, Scopus, BVS, ERIC, CINAHL, Web of Science e PsycInfo, usando estratégias de busca com diferentes sintaxes de acordo com o método de cada base: Chippa OR “Child-Initiated Pretend Play Assessment”, ChIPPA OR “Child-Initiated Pretend Play Assessment” OR “Avaliação do faz de conta iniciado pela criança”, Chippa OR “Child-Initiated Pretend Play Assessment” AND Publication Type: Journal. **Resultados:** Foram localizados 25 artigos, entre 2000 e 2021, envolvendo 971 crianças entre 3 e 12 anos de idade, com desenvolvimento típico e atípico, desenvolvidos em estudos analíticos observacionais (transversais e de coorte) e experimentais; metodológicos (validação do instrumento e de adaptação cultural de instrumento); e descritivos. **Conclusão:** A ChIPPA tem sido descrita na literatura como uma avaliação que permite correlacionar o faz de conta e as habilidades verbais, sociais, acadêmicas e de processamento sensorial de pré-escolares. É uma medida de desfecho eficaz, válida e confiável, permitindo avaliar crianças típicas e atípicas em diferentes contextos e países, inclusive no Brasil.

Palavras-chave: Terapia Ocupacional, Jogos e Brinquedos, Avaliação de Resultado de Intervenções Terapêuticas, Literatura de Revisão.

Introduction

Playing is an everyday activity that involves playful actions that are intrinsically motivating, pleasurable, spontaneous, and freely chosen by the children (they decide whether or not to participate), without expecting any specific result (Pfeifer & Stagnitti, 2020). It is a universal child behavior, but it reflects environmental and cultural characteristics (Santos et al., 2018). As children develop, playing changes (Gaskill & Perry, 2014), ranging from explorations of social and physical environments to complex playing (Stagnitti & Pfeifer, 2017).

Based on the intervention references of the Playful Model (Ferland, 2006) and Learn to Play Therapy (Stagnitti, 2021), playing is understood as a spontaneous, subjective, daily activity, centered on creativity and supported by attitude, interest, and action, so it can be experienced, allowing children to interact in different situations with objects, toys, partners (children and adults), stimulating skills and connection, and belonging to a group (Pfeifer & Stagnitti, 2020). It is considered a fundamental occupation in childhood, and there is consensus on its value and its essential place among professionals in child occupational therapy (Lynch et al., 2018).

Thus, the occupational therapist needs to value and encourage playing as a significant occupation, understanding the doing in playing (development of play, skills,

gifts, and abilities), the playful human being (the fun and time to play), and becoming participating and belonging to the game (joining peers as a partner) (Stagnitti, 2007, 2021). Only by understanding what playing brings to a child's life, the therapist can engage with children and help them play (Lynch & Moore, 2016).

Playing assessment should be part of the occupational therapy process to analyze children's skills in their occupational performance and plan occupation-centered interventions (Tanta & Knox, 2015). However, most occupational therapists report little use of playing assessments in their professional practice (Lynch et al., 2018).

Delimiting objectives and targeting interventions based on systematized and validated assessments allow for better outcome results, both in the clinical and scientific fields (Mazak et al., 2021). The evaluation process involves the selection of specific instruments, the application, and the documentation of the process and results. The use of standardized evaluations helps to determine the child's eligibility for occupational therapy intervention, to monitor the evolution of the therapeutic process, and to identify the most appropriate intervention method for each child (Mancini et al., 2020). Standardized assessments also favor clinical and scientific recognition of occupational therapy, the production of specific knowledge, and the reliability of interventions (Chaves et al., 2010).

Occupational therapists must be aware of the resources available, inside and outside the country, to choose and apply the most appropriate instrument for each case. Two literature reviews (Pfeifer & Cruz, 2008; Lifter et al., 2011, as cited in Sposito, 2018) identify sixteen instruments for assessing playing, seven of which are used by occupational therapists and present evidence for professional practice in the clinic and the search. They are Playful History (Takata, 1974); Children's Play Scale (Barnett, 1991); Transdisciplinary Play-based Assessment (Linder, 1993); Entertainment Test (Bundy, 2002); Play Model Assessment (Ferland, 2006); Knox Preschool Play Scale – reviewed (Knox, 2002); and the of Child-Initiated Pretend Play Assessment (ChIPPA) (Stagnitti, 2007, 2019).

These instruments were developed in English-speaking countries, with sociocultural characteristics different from our language, requiring translation and adaptation processes for Brazil. Of the instruments mentioned, only the Play Model Assessments (Sant'Anna, 2007; Sant'Anna et al., 2015), Knox Preschool Play Scale – reviewed (Sposito et al., 2019), and the ChIPPA (Pfeifer et al., 2011b) were adapted cross-culturally to Brazil.

The ChIPPA is a standardized and structured assessment for a clinical setting, to assess the quality of a child's ability to self-initiate make-believe play (Stagnitti, 2007, 2019). It is based on the theoretical foundation of Learn to Play therapy and was developed in Australia (Stagnitti, 1998, 2021). It is intended for children aged three to seven years and eleven months, with an application duration of 18 minutes for children aged 3 years and 30 minutes for children aged 4 to 7 years old. It also has cut-off points for Australian children aged 3 to 7 years old and Brazilian children aged 3 years old (Lucisano, 2016; Stagnitti, 2019).

ChIPPA has a standardized¹ assessment kit, which includes structured objects to assess imaginative-conventional play (truck, dolls, animals, and tools) and unstructured objects to assess symbolic play (cardboard boxes, cylindrical pieces of wood, cans, towels, stones, and rag dolls) (Stagnitti, 2007, 2019).

It is a non-directed assessment, as the examiner does not guide the child about how or what to play, does not give ideas on how to play, and does not emphasize, during playing, what the child is doing. It is divided into two sessions: imaginative-conventional and symbolic (Stagnitti, 2007, 2019). It provides information about the complexity of playing, measuring the child's ability to initiate play, and identifying cognitive skills, such as logical sequential thinking, use of abstract symbols (box like a car), and play style (narrative or mathematical) (Pfeifer et al., 2011b; Stagnitti, 2007). It allows the therapist to observe how the children play, their attitude, and their involvement in playing (Pfeifer & Stagnitti, 2020). As a measure of results, this method enables the definition of the goals of therapy, through the analysis of the child's performance regarding the spontaneous ability to play and involvement in make-believe playing (Stagnitti & Pfeifer, 2017).

Seeking to identify how make-believe playing has been evaluated in preschoolers, Lucisano et al. (2017) performed an integrative literature review and found that ChIPPA is the most used assessment. Thus, there was a need to map the studies on ChIPPA, descriptively synthesizing the results, contributing with interventional practices of playing as an occupation in the routines and habits of children.

Thus, this study aimed to review the scope of ChIPPA in scientific productions over the years and to identify how this assessment has been described and addressed in national and international literature from its creation to the present.

Method

This is a scoping review through scientific articles that used ChIPPA as an evaluation measure in national and international literature. We adopted the parameters recommended by Arksey & O'Malley (2005), which involve 5 steps: 1) Definition of the research question(s); 2) Identification of relevant studies through different sources; 3) Composition of the final sample based on the search and inclusion/exclusion criteria; 4) Extraction of data related to the research question, including general information about the study; and 5) Data description, numerical and thematic/conceptual data analysis, discussion.

The investigative questions that guided this study were: How has ChIPPA been used in research and clinical practice as an outcome measure over the past 20 years? In which populations has it been applied and how is the use of the ChIPPA assessment described in the national and international literature? What are the topics covered, the objectives, and the results achieved by the studies, considering the type of design adopted?

Between January and June 2021, we searched for articles in PubMed, Scopus, VHL, ERIC, CINAHL, Web of Science, and PsycInfo databases. For each research portal, a

¹ The revised manual, the scoring booklets and the kit materials of the Child-Initiated Pretend Play Assessment are disponible to buy on the Learn to Play (2022) site.

specific strategy for crossing keywords was developed to retrieve subjects from the scientific literature.

In Pubmed, CINAHL, Scopus, and Web of Science, the search strategy was applied with the syntax, according to the search method of each base: Chippa OR “Child-Initiated Pretend Play Assessment”. In the VHL and ERIC, the following strategy was used: ChIPPA OR “Child-Initiated Pretend Play Assessment” OR “*Avaliação do faz de conta iniciado pela criança*”. At PsycInfo, the following strategy was used: Chippa OR “Child-Initiated Pretend Play Assessment” AND Publication Type: Journal. This process had the collaboration of a librarian from a public university library.

Once we located the articles, the eligibility, selection, and exclusion criteria were applied. We considered eligible articles with a keyword in the abstract and/or body of the text ChIPPA or “Child-Initiated Pretend Play Assessment”, somehow addressed and described in the study, a sample with a typical population or with clinical health conditions, written in Portuguese, English and/or Spanish and available in full for reading. Literature reviews, congress abstracts, theses, dissertations, and letters to the editor were excluded, without limitation regarding the year of publication. Figure 1 shows the steps for selecting the articles included in this review.

Two independent researchers performed the full reading of the 25 articles, for classification and description using simple descriptive statistics, according to the following criteria: 1) Year of publication; 2) Authors and type of journal; 3) Country where the study was carried out; 4) Characteristics of the participants; 5) Objective(s) with a description of the application of ChIPPA, and 6) Type of research design.

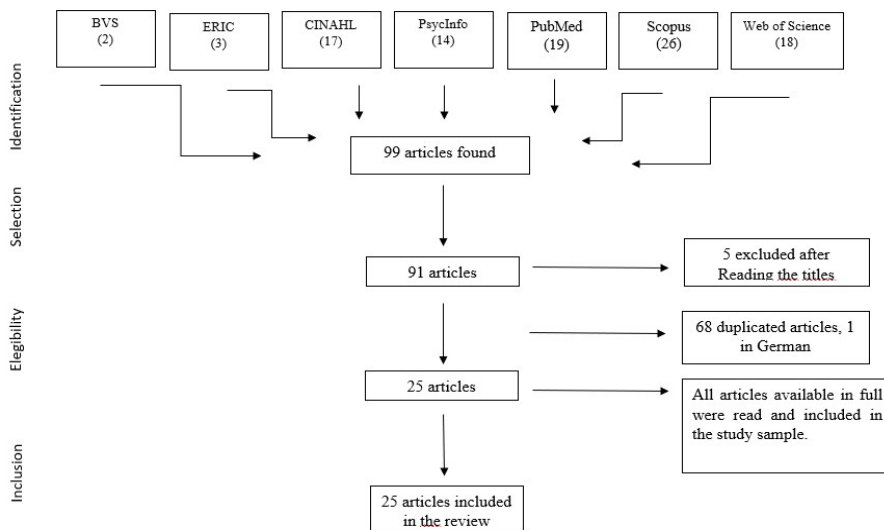


Figure 1. Representative flowchart of the selection steps of articles included in the scope review.

Source: Created by the authors.

Results

The studies were conducted between 2000 and 2021, which are shown in Figure 2.

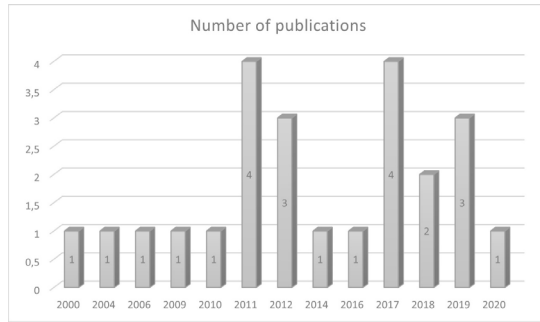


Figure 2. Scientific production in the period 2000-2019 (n=24).

We observed the concentration of publications between 2011-2012 and 2017-2019, not exceeding 4 per year, achieved in 2011 and 2017. There was at least one publication in 13 of the 22 years since the ChIPPA was conceived. Although production in the period is considered low, there has been a considerable increase in the last 10 years compared to previous years. Table 1 shows the summaries of the studies.

Table 1. Objectives and synthetic description of the application of ChIPPA.

Authors / Year	Journal	Participants	Objective(s) with ChIPPA application description
Stagnitti et al. (2000)	Canadian Journal of Occupational Therapy	41 typically developing children aged 4 to 5 years old.	To describe a new play assessment (ChIPPA) and report studies, verifying inter-rater reliability and whether it is possible to discriminate between children with pre-academic problems and typical development.
Stagnitti & Unsworth (2004)	The American Journal of Occupational Therapy	38 children aged 4 and 5 years (4 with developmental delay and 34 with typical development).	To establish ChIPPA test-retest reliability.
Swindells & Stagnitti (2006)	Australian Occupational Therapy Journal	35 Children aged 4 to 5 years, typically developing.	To investigate the relationship between make-believe and social skills. To test the construct validity of the ChIPPA of inferring social competence by assessing the ability to play make-believe.
Uren & Stagnitti (2009)	Australian Occupational Therapy Journal	41 typically developing children aged 5 to 7 years.	To investigate the relationship between make-believe play, social skills, and involvement in school activities and to determine whether children's social skills and level of involvement could be inferred from their ChIPPA scores. To show conclusions on the concurrent validity of the ChIPPA.
Santos et al. (2010)	Revista do Nufen	20 children aged 3 to 6 years with Cerebral Palsy (CP).	To analyze the influence of the family context on the performance of the symbolic play.
Dender & Stagnitti (2011)	Australian Occupational Therapy Journal	23 typically developing children aged 4 to 6 years.	To report on the selection of culturally appropriate and gender-neutral play materials and management changes identified to develop the I-ChIPPA and establish its reliability.

Table1. Continued...

Authors / Year	Journal	Participants	Objective(s) with ChIPPA application description
O'Connor & Stagnitti (2011)	Research in Developmental Disabilities	35 children from 5 to 8 years old, with some intellectual deficit.	To investigate the playful, behavioral, language, and social skills of children who participated in a playful intervention ('Learn to Play' program) compared to a group of children who participated in traditional play in classroom activities.
Pfeifer et al. (2011b)	Canadian Journal of Occupational Therapy	14 children, 9 girls, with typical development between 3 and 7 years old	To organize the cross-cultural adaptation of ChIPPA to the Brazilian population and evaluate the use of play materials, the duration of the evaluation, and the reliability.
Pfeifer et al. (2011a)	Physical & Occupational Therapy in Pediatrics	20 children aged 3 to 6 years were diagnosed with CP, 9 were girls.	To describe spontaneous play, types of play make-believe deficits, and the relationship between motor severity level and ability to play. To investigate inter and intra-examiner reliability.
Casey et al. (2012)	International Journal of Play	26 typically developing children aged 4 to 6 years.	To describe the relationship between the ability to play make-believe and interactions between peers of resilient children living in disadvantaged communities, within the cohort of the early years of the 'Supporting Resilience' project.
Fink et al. (2012)	Developmental Neurorehabilitation	3 children aged 3 to 6 years were diagnosed with acquired brain injury.	To describe the make-believe play of children who suffered acquired brain injury.
Stagnitti et al. (2012)	Australian Occupational Therapy Journal	19 children, 10 with a diagnosis of ASD aged 5 to 8 years.	To investigate the change in the relationship between play, language, and social skills before and after participation in the "Learn to Play" program.
Stagnitti & Lewis (2015)	International Journal of Speech-Language Pathology	48 children at risk for learning disabilities and 32 typically developing children, aged between 4 and 5 years.	To investigate whether the quality of the logical sequencing of actions, make-believe play, and use of symbols predicted semantic organization and ability to retell narratives (SAOLA).
Chan et al. (2016)	Hong Kong Journal of Occupational Therapy	20 children with ASD between 3 and 7 years old.	To examine the relationships of the theory of mind (ToM) with make-believe play and free play.
Adams et al. (2017)	British Journal of Occupational Therapy	30 typically developing children between 3 and 8 years old	To evaluate three types of play: No Play, Functional Play and Pretend Play, using ChIPPA objects, with and without a switch-controlled Lego Mindstorms robot.
Golchin et al. (2017)	Iranian Journal of Pediatrics	31 children aged 4 to 6 years with typical development.	To examine the face and content validity, inter-examiner, intra-examiner, and test-retest reliability of the ChIPPA Persian translation.
Lin et al. (2017)	European Child & Adolescent Psychiatry	92 children with ASD between 4 and 10 years old.	To clarify the relationships between ToM and make-believe play, using refined assessments and monitoring autistic behaviors and verbal comprehension.
Stagnitti & Pfeifer (2017)	International Journal of Play Therapy	3 children aged 4 to 6 years with ASD and related disorders	To highlight methodological issues in research design when gathering evidence for the effectiveness of Learn to Play Therapy.

Table1. Continued...

Authors / Year	Journal	Participants	Objective(s) with ChIPPA application description
Roberts et al. (2018)	The American Journal of Occupational Therapy	42 typically developing children between 5 and 7 years old.	To investigate the relationship between sensory processing and make-believe play.
Santos et al. (2018)	Australian Occupational Therapy Journal	20 children with CP between 4 and 7 years old	To describe the quality of role-playing and self-initiate play skills by analyzing the clinical observations of ChIPPA in 5 categories (time, examiner interaction, imitation, theme, and story).
Anu et al. (2019)	The Indian Journal of Occupational Therapy	42 children with ASD, between 3 and 7 years old.	To explore make-believe play behaviors, and improve social skills.
Chen et al. (2019)	Neuropsychiatric Disease and Treatment	72 children with ASD between 3 and 12 years old.	To assess the relationship between make-believe and free play, while controlling for the severity of autistic behaviors, verbal comprehension, and age.
Dooley et al. (2019)	British Journal of Occupational Therapy	26 children with acquired brain injury between 3 and 7 years old.	To describe self-initiated make-believe play skills and compare them with ChIPPA cutoffs.
Lucisano et al. (2021)	Australian Occupational Therapy Journal	200 children with 3 years of typical development	To provide evidence of reliability, internal consistency, and hypothesis testing of the construct validity of the cross-culturally adapted version of the ChIPPA.
Sarah et al. (2021)	Clinical Child Psychology and Psychiatry	30 typically developing children between 5 and 7 years old	To investigate whether play themes can be identified using the ChIPPA.

Source: Created by the authors.

The studies in this review were developed in Australia (14), Brazil (5), Taiwan (3), Canada (1), India (1), and Iran (1). Participants (971 in total) were between 3 and 12 years old, with typical development (11 studies), ASD (5 studies), CP (3 studies), acquired brain injury (2 studies), ASD, and other related disorders (2 studies) and with some risk/delay in development (2 studies).

The journal that published the most was the *Australian Occupational Therapy Journal* (ChIPPA's country of origin) (n=7.28%), followed by the *Canadian Journal of Occupational Therapy*, *American Journal of Occupational Therapy*, *International Journal of Play*, and *British Journal of Occupational Therapy* (n=2.8% each); and *Developmental Neurorehabilitation*, *European Child & Adolescent Psychiatry*, *Hong Kong Journal of Occupational Therapy*, *Indian Journal Occupational Therapy*, *International Journal of Speech-Language Pathology*, *Iranian Journal of pediatrics*, *Neuropsychiatric Disease and Treatment*, *Physical & Occupational Therapy in Pediatrics*, *Research in Developmental Disabilities* and *Revista do Nufen* (n=1, 4%, each). Of these, seven are occupational therapy, published 15 studies.

As this is a scoping review, the level of evidence of the articles found was not analyzed, but the topics covered. The topics addressed, the objectives, and the results achieved are related to the type of design adopted (Daamen-Dezotti et al., 2011). Thus, we found that all studies used a quantitative approach, distributed in cross-sectional observational analytical studies (11), experimental analytical studies (5), methodological

instrument validation (5), methodological instrument cultural adaptation (2), analytical cohort observational (1) and descriptive methods (1).

Discussion

Although the first edition of the ChIPPA was published in 2007 (Stagnitti, 2007), studies to design and validate the assessment started earlier (Stagnitti et al., 2000; Stagnitti & Unsworth, 2004; Swindells & Stagnitti, 2006).

Study participants were children with typical development, or some clinical diagnosis (ASD, CP, acquired brain injury, learning/intellectual deficit), which is following the assessment proposal, which is suitable for children with developmental delays, learning/intellectual or physical deficits, among others (Stagnitti, 2019).

Although ChIPPA was developed to assess children between 3 and 7 years old (Stagnitti, 2007, 2019), four studies involved older children (between 8 and 12 years old), three of which (Chen et al., 2019; Lin et al., 2017; Stagnitti et al., 2012) involved children with ASD, who were classified using the cutoff points of 7 years old, as their playful performance is usually similar to preschoolers. Although the study by Adams et al. (2017) involved children of typical development, it did not use the cut-off points to analyze the results but evaluated the performance of children's make-believe play using or not a robot during playing.

Most articles were published in occupational therapy journals, emphasizing play as a fundamental occupation in childhood and a focus of study for occupational therapists (Pfeifer & Stagnitti, 2020).

When developing a measurement instrument, we must analyze content, criterion, construct and cross-cultural validity, internal consistency, and reliability, among others (Mokkink et al., 2018). Therefore, different research designs can be used to prove these results (Prodanov & Freitas, 2013). Thus, studies using ChIPPA are classified as observational (cross-sectional and cohort), experimental, methodological (instrument validation and cultural adaptation), and descriptive-analytical, as presented below.

Cross-sectional observational analytical studies

They analyze the influence/association of a given factor in the occurrence of an event/outcome, observing the situation of a specific population at a given time, allowing an initial analysis of the association between the factor and the outcome (Aragão, 2011). The majority (10) of the selected studies had this category.

Stagnitti et al. (2000) present the ChIPPA as a new assessment of the quality of play behavior. The objective was to verify if the ChIPPA has inter-examiner reliability and if the make-believe play could discriminate the play of preschoolers in typical development and with pre-academic problems. The study defines that, in the preschool period (children of 4 and 5 years old), important skills are developed for the literacy process in the school phase, such as the ability to hold a pencil properly, understand the sequence, complete puzzles heads, combine shapes, act in a social group, concentrate on a task, follow a routine, solve problems, use language properly, and sit and listen to a story (Stagnitti et al., 2000).

Santos et al. (2010) analyzed the influence of family context on the performance of the symbolic play in children with CP aged 3 to 6 years old. This study shows how the encouragement of parents and the school, and the number of resources for playing and socializing with peers can influence the development of symbolic play in these children.

Pfeifer et al. (2011a) described the spontaneous make-believe play of children with CP, investigating the relationship between the level of motor severity and the ability to play. In addition, they examined inter- and intra-rater reliability. The results identify a range of play skills and allow for an individual intervention targeted at each child.

Casey et al. (2012) describe the relationship between the ability to play make-believe and interactions among resilient children living in disadvantaged communities.

Chan et al. (2016) examined the relationship between Theory of Mind (ToM) with make-believe and free play in children with ASD. The results showed that ToM was significantly associated with make-believe in the items “initiates play actions”, “object replacements”, “attribution of properties” and “a reference to absent objects”. However, there was no significant relationship between ToM and free play. Through the analysis of the results, the severity of autism proved to be an important factor that influences free play, especially in the variables: internal control, referring to the child's ability to take control of their playful behaviors and their consequences, such as deciding who to play with, what to play with, and how to manage time and space.

Lin et al. (2017) sought to clarify the relationships between ToM and make-believe play in children with ASD, considering as mediators of this relationship, based on empirical evidence, certain behaviors, such as repetitive patterns, sensory sensitivity, interests, and activities and verbal comprehension. The results demonstrate that ToM plays a predominant role in the quality, rather than the quantity, of make-believe play of children with mild to moderate ASD and average verbal comprehension.

Roberts et al. (2018) investigated the relationship between sensory processing and make-believe play. The results indicated that sensory processing factors that include body awareness, balance, touch, and social participation were predictive of the quality of children's involvement in make-believe play in the home environment, especially body awareness, balance, and touch. Object substitution was also significantly related to body awareness. In the home and school environment, social participation was related to the symbolic use of objects. The study has, as clinical implications, that occupational therapists are facilitators for the development of performance components at a level of body structures and functions, through a focus on interventions centered on occupation, such as playing.

Santos et al. (2018) analyzed time, interaction with the examiner, imitation, theme, and story in the two sessions of make-believe play (present in the ChIPPA) of children with CP. It was concluded that the qualitative aspects of the make-believe performance were satisfactory, showing typical play indicators in all categories, except for “History”, considered the most complex aspect in the ability to play, insofar as, after the creation of a scenario with objects, the child can start a narrative in logical sequences of actions, a behavior that was not presented by the evaluated children.

Dooley et al. (2019) described the make-believe play skills of children with acquired brain injury, and all of them had deficits in make-believe, especially in symbolic play. Cognitive fatigue is considered to affect the ability to play due to the considerable

amount of cognitive effort required to perform make-believe play such as attention, concentration, and session time.

Chen et al. (2019) examined the extent of association of children with ASD's play performances with their levels of playfulness, considering autism severity, verbal comprehension, and age. The results indicate that the more children with ASD engage in elaborate and complex pretend to play and object substitutions, the more inner feelings of play they experience.

Sarah et al. (2021) investigated whether play themes can be identified through ChIPPA, and explored what these themes are and whether there is a relationship between the ability of make-believe play and the expression of the play theme. The themes were identified in 26 of the 30 typically developing children. The most frequent were trust (19); mistrust (8); shame/doubt (11); and industry (11). Children who demonstrated identifiable themes showed typical performance for their age, with more elaborate typical play indicators compared to children with unidentified themes. We conclude that ChIPPA provides a baseline of play themes and make-believe play skills, significantly guiding the therapist to define the playful intervention model according to the child's needs.

Observational analytical cohort study

They bring together a group of individuals with the same characteristics, followed for a certain period to assess the outcome of interest, enabling to identify the influence of certain factors (Aragão, 2011).

Only the study by Stagnitti & Lewis (2015) fits this category. They investigated whether the quality of the logical sequencing of make-believe actions and preschool children's use of symbols predicted their semantic organization and ability to retell narratives when they were in early elementary school. The results indicated that the complexity of the games and their ability to use symbols were predictive of semantic organization skills. The use of symbols was the strongest predictor of play in the skills of retelling a narrative. The quality of ability to elaborate complex sequences in play and use symbols predicted up to 20% of the semantic organization and narrative retelling skills up to 5 years later. These results have important clinical implications, contributing to the development of subsequent language skills, allowing children to use this knowledge for abstract situations, problem-solving, creating hypotheses, and promoting their academic success.

Experimental analytical studies

It seeks to analyze a particular intervention carried out with the population and verify if it presents changes in the outcome, demonstrating the recommendation or not of its use (Aragão, 2011). We identified 5 studies in this category that used ChIPPA as an outcome measure.

O'Connor & Stagnitti (2011) and Stagnitti et al. (2012) evaluated children before and after the implementation of the Learn to Play program (during 6 months in a special school) and identified an improvement in social and language skills and a decrease in

deficient play behaviors, social disturbances, and social disconnection, indicating that it is an effective intervention for children with developmental deficits.

Stagnitti & Pfeifer (2017) analyzed whether children with autism and related disorders can develop the ability to play spontaneously, through the Learn to Play program, and how this knowledge can be useful to therapists who wish to carry out research in their clinical practice, as well as the applicability of this therapy in therapeutic goals and interventions.

Adams et al. (2017) developed an assessment protocol using materials from ChIPPA (conventional and unstructured toys), with and without the use of a Lego Mindstorms robot (switch-controlled) to assess three types of play: No Play, Functional Play, and Make-believe Play. It has typically developed children. Older children tend to use the robot more with unstructured objects. The coding system developed to assess play schemes can support future research on children with motor disabilities using the assistive robot in play, facilitating their access to play and toys.

Anu et al. (2019) evaluated the increase in the social competence of children with ASD through Learn to Play therapy (for 6 months). The children showed significant improvement in make-believe play and social skills, confirming that it is an effective therapeutic modality to increase the social skills of children with ASD.

Methodological studies of instrument validation

They involve the development, validation, and evaluation of measurement protocols (Melo et al., 2017). Three studies of this category were conducted by the author of ChIPPA. The first studies were published after the development of the assessment and a study carried out in Brazil.

Stagnitti & Unsworth (2004) studied the test-retest reliability of ChIPPA. The results provided evidence that this assessment produces a stable measure of play behavior that can guide therapists in planning intervention strategies for children.

Swindells & Stagnitti (2006) tested concurrent validity and the results showed that children's social skills (as reported by parents) cannot be inferred based on ChIPPA scores. This suggests that parents interpret their children's play behavior differently than a therapist, as they know and understand their children in a different context than a health professional. Despite this, the findings contribute to the evidence-based practice of early childhood occupational therapy both in clinical and research terms, as therapists need to be aware of how they ask questions and explain behaviors to parents or guardians for a better understanding of their children's abilities and skills.

Uren & Stagnitti (2009) tested construct validity and found that a child's social skills and ability to engage in school activities assessed by teachers were inferred from their ChIPPA scores. There were significant positive relationships between elaborate play, the substitution of objects, peer involvement, and interaction, and a significant negative relationship between elaborate play, social disconnection, and social disruption. This suggests that children with proficient make-believe play skills are socially competent with peers and able to engage in classroom activities.

Lucisano et al. (2021) provided evidence of reliability, internal consistency, and hypothesis testing of the construct validity of the cross-culturally adapted Brazilian version of the ChIPPA in 3-year-old Brazilian children. The response processes and the

internal structure of the assessment showed significant increases in the ability to design play for 3-year-old to 3½-year-old children. Differences in scores were also found for gender and age for elaborate play, object substitution, and ability to self-initiate play.

Methodological studies of cultural adaptation of the instrument

They occur when an instrument is developed in another culture and another language, adapting it to sociocultural variations (Borsa et al., 2012). In this sense, three studies were developed in other cultures, verifying their applicability.

Pfeifer et al. (2011b) carried out the cross-cultural adaptation for the Brazilian population and evaluated the use of play materials, the duration of the evaluation, and the reliability. The playful materials and the duration of the assessment were suitable for Brazilian children and the process used in the translation was useful for understanding cultural differences and adapting to our population. The pre-test results indicated that this version is potentially useful for Brazilian children. However, more training is recommended to improve inter-rater reliability.

Dender & Stagnitti (2011) selected culturally appropriate and gender-neutral play materials and made management changes to develop the I-ChIPPA and establish its trustworthiness among the Indigenous Australian population. Boys and girls mostly used the darker colored dolls and animals belonging to their region in the standardized ChIPPA materials. This was the first step in the development of the I-ChIPPA, and there is still a need to refine its administration and scoring, as well as its validation, enabling culturally appropriate interventions for indigenous children.

Golchin et al. (2017) performed the cross-cultural adaptation for the Persian population and examined face and content validity, inter- and intra-evaluator reliability, and reproducibility. Some phrases were changed and pigs were replaced with dogs, making it more culturally appropriate. The Persian version showed excellent inter-examiner and intra-examiner reliability, with appropriate face validity and content.

Descriptive studies

They seek to describe the reality, without the intention of explaining or intervening, being very common in the health area, when the main option is to report initial case studies.

Only the study by Fink et al. (2012) fits into this category. The make-believe play of 3 children with acquired brain injury was described, and how cognitive fatigue may be associated with deficits in play. Play provides insights into child development and offers inferences about other areas of child development, as the lack of complexity in play is associated with activity limitations and difficulty engaging in classroom activities, language, and social interactions. A variety of play skills was observed, with two children scoring below and one child scoring higher than expected for their age. No child was able to maintain their involvement in make-believe by completing the assessment time, suggesting that this is related to cognitive fatigue.

The studies presented here refer to the total number of publications on ChIPPA, demonstrating the methodological rigor in the construction, validation, and adaptation of this outcome measure, as well as presenting reliable results that provide an evidence

base and provide safe use in clinical practice, benefiting and supporting occupational therapists in their clinical reasoning through an occupation-based assessment.

This study on how ChIPPA has been applied from its creation to the present time contributes to its expansion not only for the visibility of its applicability in different types of populations in different countries but also as a reliable and reproducible measure for the progressive increase of national and international scientific productions.

Conclusion

The results presented here allow us to discuss the reality of research on the application of an assessment of make-believe play at the national and international levels.

Through this review, we could verify that ChIPPA has been described as an assessment of make-believe play that allows identifying the correlation between verbal, social, sensory processing, and academic skills; the themes of the play, and the level of children's make-believe play. In addition, ChIPPA can be used as an outcome measure to identify the effectiveness of therapeutic interventions, enabling monitoring of the therapeutic process in clinical and school settings.

The studies located in this study show that the ChIPPA is a valid, reliable instrument that allows the evaluation and description of the make-believe play of children between 3 and 7 years old with typical development or with different clinical diagnoses, in different contexts and countries, including Brazil.

Studies on the applicability of ChIPPA are still limited, although the psychometric properties of the assessment are recognized, ensuring its use in clinical practice as a standardized assessment and reliable measurement for therapeutic interventions.

In this way, ChIPPA is considered an adequate tool to evaluate the playful performance concerning make-believe play of Brazilian preschool children.

References

- Adams, K. D., Rincón, A. M. R., Puyo, L. M. B., Cruz, J. L. C., Medina, M. F. G., Cook, A. M., & Encarnação, P. (2017). An exploratory study of children's pretend play when using a switch-controlled assistive robot to manipulate toys. *British Journal of Occupational Therapy*, 80(4), 216-224. <http://dx.doi.org/10.1177/0308022616680363>.
- Anu, N. R., Sugi, S., & Rajendran, K. (2019). Pretend play as a therapeutic modality to enhance social competence in children with autism spectrum disorder: a quasi-experimental study. *The Indian Journal of Occupational Therapy*, 51(3), 96-101. http://dx.doi.org/10.4103/ijoth.ijoth_11_19.
- Aragão, J. (2011). Introdução aos estudos quantitativos utilizados em pesquisas científicas. *Revista Praxis*, 3(6), 59-62. <http://dx.doi.org/10.25119/praxis-3-6-566>.
- Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19-32. <http://dx.doi.org/10.1080/1364557032000119616>.
- Barnett, L. A. (1991). The playful child: measurement of a disposition to play. *Play & Culture*, 4(1), 51-74.
- Borsa, J. C., Damásio, B. F., & Bandeira, D. R. (2012). Adaptação e Validação de Instrumentos Psicológicos entre Culturas: algumas Considerações. *Paideia*, 22(53), 423-432. <http://dx.doi.org/10.1590/S0103-863X2012000300014>.
- Bundy, A. C. (2002). Recreação e entretenimento: o que procurar. In L. D. Parham & L. S. Fazio (Eds.), *A recreação na terapia ocupacional pediátrica* (pp. 52-66). São Paulo: Santos Editora.

- Casey, S. A., Stagnitti, K., Taket, A., & Nolan, A. (2012). Early peer play interactions of resilient children living in disadvantaged communities. *International Journal of Play*, 1(3), 311-323. <http://dx.doi.org/10.1080/21594937.2012.741432>.
- Chan, P. C., Chen, C. T., Feng, H., Lee, Y. C., & Chen, K. L. (2016). Theory of mind deficit is associated with pretend play performance, but not playfulness, in children with autism spectrum disorder. *Hong Kong Journal of Occupational Therapy*, 28(1), 43-52. <http://dx.doi.org/10.1016/j.hkjot.2016.09.002>.
- Chaves, G. F. S., Oliveira, A. M., Forlenza, O. V., & Nunes, P. V. (2010). Escalas de avaliação para Terapia Ocupacional no Brasil. *Revista de Terapia Ocupacional da Universidade de São Paulo*, 21(3), 240-246. <http://dx.doi.org/10.11606/issn.2238-6149.v21i3p240-246>.
- Chen, K. L., Chen, C. T., Lin, C. H., Huang, C. Y., & Lee, Y. C. (2019). Prediction of Playfulness by pretend play, severity of autism behaviors, and verbal comprehension in children with autism spectrum disorder. *Neuropsychiatric Disease and Treatment*, 2019(15), 3177-3186. <http://dx.doi.org/10.2147/NDT.S223681>.
- Daamen-Dezotti, D. T., Ferrigno, I. S. V., & Cruz, D. M. C. D. (2011). Análise bibliométrica de instrumentos funcionais para avaliação do membro superior em pesquisas. *Revista Paraense de Medicina*, 25(1), 1-9.
- Dender, A., & Stagnitti, K. (2011). Development of the Indigenous Child-Initiated Pretend Play Assessment: selection of play materials and administration. *Australian Occupational Therapy Journal*, 58(1), 34-42. <http://dx.doi.org/10.1111/j.1440-1630.2010.00905.x>.
- Dooley, B., Stagnitti, K., & Galvin, J. (2019). An investigation of the pretend play abilities of children with an acquired brain injury. *British Journal of Occupational Therapy*, 82(9), 588-596. <http://dx.doi.org/10.1177/0308022619836941>.
- Ferland, F. (2006). *O modelo lúdico: o brincar, a criança com deficiência física e a terapia ocupacional*. São Paulo: Editora Roca.
- Fink, N., Stagnitti, K., & Galvin, J. (2012). Pretend play of children with acquired brain injury: an exploratory study. *Developmental Neurorehabilitation*, 15(5), 336-342. <http://dx.doi.org/10.3109/17518423.2012.655798>.
- Gaskill, R. L., & Perry, B. D. (2014). The neurobiological power of play: Using the neurosequential model of therapeutics to guide play in the healing process. In C. A. Malchiodi & D. A. Crenshaw (Eds.), *Creative arts and play therapy for attachment problems* (pp. 178-194). New York: The Guilford Press.
- Golchin, M. D., Mirzakhani, N., Stagnitti, K., Golchin, M. D., & Rezaei, M. (2017). Psychometric properties of Persian version of "child-initiated pretend play assessment" for Iranian children. *Iranian Journal of Pediatrics*, 27(1), 1-8. <http://dx.doi.org/10.5812/ijp.7053>.
- Knox, S. H. (2002). Desenvolvimento e uso corrente da Escala Lúdica Pré-escolar de Knox. In L. D. Parham & L. S. Fazio (Colab.), *Recreação na Terapia Ocupacional Pediátrica* (pp. 35-21). São Paulo: Santos Editora.
- Learn to Play. (2022). *Child-Initiated Pretend Play Assessment-2 (ChIPPA-2) KIT*. Recuperado em 1 de fevereiro de 2022, de <https://www.learntoplayevents.com/product/child-initiated-pretend-play-assessment-2-chippa-2-kit/>
- Lifter, K., Foster-Sanda, S., Arzamarski, C., Briesch, J., & McClure, E. (2011). Overview of play: its uses and importance in early intervention/early childhood special education. *Infants and Young Children*, 24(3), 225-245.
- Lin, S. K., Tsai, C. H., Li, H. J., Huang, C. Y., & Chen, K. L. (2017). Theory of mind predominantly associated with the quality, not quantity, of pretend play in children with autism spectrum disorder. *European Child & Adolescent Psychiatry*, 26, 1187-1196. <http://dx.doi.org/10.1007/s00787-017-0973-3>.
- Linder, T. W. (1993). *Transdisciplinary play-based assessment: A functional approach to working with young children*. Baltimore: Paul H Brookes Publishing.

- Lucisano, R. V. (2016). *Validade da versão brasileira da avaliação do brincar de faz de conta iniciado pela criança (ChIPPA) – para crianças de três anos de idade* (Dissertação de mestrado). Universidade de São Paulo, Ribeirão Preto.
- Lucisano, R. V., Novaes, L. C., Sposito, A. M. P., & Pfeifer, L. I. (2017). Avaliação do brincar de faz de conta de pré-escolares: revisão integrativa da literatura. *Revista Brasileira de Educação Especial*, 23(2), 309-322. <http://dx.doi.org/10.1590/S1413-65382317000200011>.
- Lucisano, R. V., Pfeifer, L. I., Santos, J. L. F., & Stagnitti, K. (2021). Construct validity of the Child-Initiated Pretend Play Assessment: For 3-year-old Brazilian children. *Australian Occupational Therapy Journal*, 63(1), 43-53. <http://dx.doi.org/10.1111/1440-1630.12697>.
- Lynch, H., & Moore, A. (2016). Play as an occupation in occupational therapy. *British Journal of Occupational Therapy*, 79(9), 519-520. <http://dx.doi.org/10.1177/0308022616664540>.
- Lynch, H., Prellwitz, M., Schulze, C., & Moore, A. (2018). The State of play in children's occupational therapy: a comparison between Ireland, Sweden and Switzerland. *British Journal of Occupational Therapy*, 81(1), 42-50. <http://dx.doi.org/10.1177/0308022617733256>.
- Mancini, M. C., Pfeifer, L. I., & Brandão, M. D. B. (2020). Processos de avaliação de terapia ocupacional na infância. In L. I. Pfeifer & M. M. M. Sant'Anna (Orgs.), *Terapia ocupacional na infância: procedimentos para a prática clínica* (pp. 25-40). São Paulo: Memnon.
- Mazak, M. S. R., Fernandes, A. D. S. A., Lourenço, G. F., & Cid, M. F. B. (2021). Instrumentos de avaliação da terapia ocupacional para crianças e adolescentes no Brasil: uma revisão da literatura. *Cadernos Brasileiros de Terapia Ocupacional*, 29, e2833. <http://dx.doi.org/10.1590/2526-8910.ctoAR2143a>.
- Melo, W. S., Oliveira, P. J. F., Monteiro, F. P. M., Santos, F. C. A., Silva, M. J. N., Calderon, C. J., Fonseca, L. N. A., & Simão, A. A. C. (2017). Guia de atributos da competência política do enfermeiro: estudo metodológico. *Revista Brasileira de Enfermagem*, 70(3), 552-560. <http://dx.doi.org/10.1590/0034-7167-2016-0483>.
- Mokkink, L. B., Prinsen, C. A. C., Patrick, D. L., Alonso, J., Bouter, L. M., de Vet, H. C. W., & Terwee, C. B. (2018). *COSMIN methodology for systematic reviews of Patient-Reported Outcome Measures (PROMs): User manual: Version 1.0*. Recuperado em 1 de fevereiro de 2022, de https://www.cosmin.nl/wp-content/uploads/COSMIN-syst-review-for-PROMs-manual_version-1_feb-2018.pdf
- O'Connor, C., & Stagnitti, K. (2011). Play, behaviour, language and social skills: the comparison of a play and a non-play intervention within a specialist school setting. *Research in Developmental Disabilities*, 32(3), 1205-1211. <http://dx.doi.org/10.1016/j.ridd.2010.12.037>.
- Pfeifer, L. I., & Cruz, D. M. C. (2008). Avaliações do brincar e suas evidências para a prática do terapeuta ocupacional no campo da educação especial. In M. A. Almeida, E. G. Mendes & M. C. P. I. Hayashi (Orgs.), *Temas em educação especial: múltiplos olhares* (pp. 403-412). São Paulo: Junqueira & Marin Editores.
- Pfeifer, L. I., & Stagnitti, K. (2020). Terapia Learn to play: intervenção de terapia ocupacional para desenvolver o brincar de faz de conta. In L. I. Pfeifer & M. M. M. Sant'Anna (Orgs.), *Terapia ocupacional na infância: procedimentos para a prática clínica* (pp. 400-420). São Paulo: Memnon.
- Pfeifer, L. I., Pacciullo, A. M., Santos, C. A., Santos, J. L., & Stagnitti, K. (2011a). Pretend play of children with cerebral palsy. *Physical & Occupational Therapy in Pediatrics*, 31(4), 390-402. <http://dx.doi.org/10.3109/01942638.2011.572149>.
- Pfeifer, L. I., Queiroz, M. A., Santos, J. L., & Stagnitti, K. (2011b). Cross-cultural adaptation and reliability of Child-Initiated Pretend Play Assessment (ChIPPA). *Canadian Journal of Occupational Therapy*, 78(3), 187-195. <http://dx.doi.org/10.2182/cjot.2011.78.3.7>.
- Prodanov, C. C., & Freitas, E. C. (2013). *Metodologia do trabalho científico: métodos e técnicas da pesquisa e do trabalho acadêmico*. Novo Hamburgo: Feevale.
- Roberts, T., Stagnitti, K., Brown, T., & Bhojti, A. (2018). Relationship between sensory processing and pretend play in typically developing children. *The American Journal of Occupational Therapy*, 72(1), 1-8. <http://dx.doi.org/10.5014/ajot.2018.027623>.

- Sant'Anna, M. M. M. (2007). *Tradução e adaptação transcultural dos protocolos de avaliação do modelo lúdico para crianças com paralisia cerebral* (Dissertação de mestrado). Universidade Presbiteriana Mackenzie, São Paulo.
- Sant'Anna, M. M. M., Pfeifer, L. I., Tedesco, S., Costa, S. C., Silva, C. M. A., Jimenez, L., Mello, L. Z. P., Kawakami, R. Y., & Cunha, T. T. (2015). *Instrumentos de avaliação do modelo lúdico para crianças com deficiência física (EIP-ACL): manual da versão brasileira adaptada*. São Carlos: M&M Editora.
- Santos, C. A., Pacciullo, A. M., & Pfeifer, L. I. (2010). The influence of the family context in the symbolic play of children with cerebral palsy. *Revista do NUFEN*, 1(2), 3-20.
- Santos, D. M., Lucisano, R. V., & Pfeifer, L. I. (2018). An investigation of the quality of pretend play ability in children with cerebral palsy. *Australian Occupational Therapy Journal*, 66(2), 210-218. <http://dx.doi.org/10.1111/1440-1630.12539>.
- Sarah, B., Parson, J., Renshaw, K., & Stagnitti, K. (2021). Can children's play themes be assessed to inform play therapy practice? *Clinical Child Psychology and Psychiatry*, 26(1), 257-267. <http://dx.doi.org/10.1177/1359104520964510>.
- Sposito, A. M. P. (2018). *Confiabilidade e validação de conteúdo da Escala Lúdica Pré-Escolar de Knox - revisada para a população brasileira* (Tese de doutorado). Universidade de São Paulo, Ribeirão Preto.
- Sposito, A. M. P., Santos, J. L. F., & Pfeifer, L. I. (2019). Validation of the revised knox preschool play scale for the Brazilian population. *Occupational Therapy International*, 2019, 1-6. <http://dx.doi.org/10.1155/2019/6397425>.
- Stagnitti, K. (1998). *Learn to Play. A practical program to develop imaginative play skills in children*. Melbourne: Co-ordinates Publications.
- Stagnitti, K. (2007). *Child-Initiated Pretend Play Assessment*. Melbourne: Co-ordinates Publications.
- Stagnitti, K. (2019). *The child-initiated pretend play assessment 2 – ChIPPA 2: manual*. Melbourne: Learn to Play.
- Stagnitti, K. (2021). *Learn to play*. Melbourne: Learn to Play.
- Stagnitti, K., & Lewis, F. M. (2015). Quality of pre-school children's pretend play and subsequent development of semantic organization and narrative re-telling skills. *International Journal of Speech-Language Pathology*, 17(2), 148-158. <http://dx.doi.org/10.3109/17549507.2014.941934>.
- Stagnitti, K., & Pfeifer, L. I. (2017). Methodological considerations for a directive play therapy approach for children with autism and related disorders. *International Journal of Play Therapy*, 26(3), 160-171. <http://dx.doi.org/10.1037/pla0000049>.
- Stagnitti, K., & Unsworth, C. (2004). The test-retest reliability of the child-initiated pretend play assessment. *The American Journal of Occupational Therapy*, 58(1), 93-99. <http://dx.doi.org/10.5014/ajot.58.1.93>.
- Stagnitti, K., O'Connor, C., & Sheppard, L. (2012). Impact of the Learn to Play program on play, social competence and language for children aged 5–8 years who attend a specialist school. *Australian Occupational Therapy Journal*, 59(4), 302-311. <http://dx.doi.org/10.1111/j.1440-1630.2012.01018.x>.
- Stagnitti, K., Unsworth, C., & Rodger, S. (2000). Development of an assessment to identify play behaviours that discriminate between the play of typical preschoolers and preschoolers with pre-academic problems. *Canadian Journal of Occupational Therapy*, 67, 291-303.
- Swindells, D., & Stagnitti, K. (2006). Pretend play and parents' view of social competence: the construct validity of the Child-Initiated Pretend Play Assessment. *Australian Occupational Therapy Journal*, 53(4), 314-324. <http://dx.doi.org/10.1111/j.1440-1630.2006.00592.x>.
- Takata, N. (1974). Play as prescription. In M. Reilly (Ed.), *Play as exploratory learning: studies of curiosity behavior* (pp. 209-246). Beverly Hills: Sage Publications.
- Tanta, K., & Knox, S. (2015). Play. In J. Case Smith & J. C. O'Brien (Eds.), *Occupational therapy for children and adolescents* (7th ed., pp. 482-493). St. Louis: Elsevier.

Uren, N., & Stagnitti, K. (2009). Pretend play, social competence and involvement in children aged 5–7 years: the concurrent validity of the Child-Initiated Pretend Play Assessment. *Australian Occupational Therapy Journal*, 56(1), 33-40. <https://doi.org/10.1111/j.1440-1630.2008.00761.x>.

Author's Contributions

We declare that all the authors of this article participated in the substantial elaboration of the conception, analysis, and interpretation of the data, as well as critically reviewed, whenever necessary, agreeing with the responsibility for all aspects of the work (review, writing and final approval of the manuscript). This article is the result of a more extensive study developed by Prof. Renata Valdívía Lucisano and guided and supervised by Dr. Luzia Iara Pfeifer. Dr. Karen Stagnitti developed ChIPPA. All authors approved the final version of the text.

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