

# Understanding Outdoor Play Types and Their Impact on Children's Psychosocial Well-being: A Narrative Review

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## Abstract

Despite growing evidence of the benefits of outdoor play on children's well-being, the amount of time children spend playing outside has decreased in recent years. Furthermore, due to current technological advancements and the recent pandemic, children are more prone to engage in indoor sedentary activities, increasing their chance of developing Childhood Psychosocial Dysfunction (CPD). The systematic narrative review is conducted to examine the various types of outdoor play and their influence on children's psychological well-being. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) standards were implemented in the narrative review. The 16 relevant publications were obtained, and four forms of outdoor play were identified: (1) physical play, (2) constructive play, (3) imaginative play, and (4) games with rules. When all four types were examined further, the findings were synthesised into a literature matrix and incorporated as supporting statements. According to the systematic narrative review, all four forms of outdoor play are beneficial to children's well-being and may coexist during playtime.

**Keywords:** Outdoor Play, Play Types, Psychosocial, Well-Being, Children

## Introduction

Four hundred twenty-four thousand children in Malaysia were determined to have mental health issues, according to the National Health and Morbidity Survey 2019. Conduct disorder, anxiety disorder, and depression alone account for 12% of the overall burden of illness in this age range (5-15 years old), making mental problems the primary factor contributing to poor health. The harmful factors affecting children's psychosocial well-being include sedentary behaviours and screen usage, which are significant concerns that should be noted. In the 2017 NHMS Adolescent Survey, only 19.8% of adolescents aged 13 to 17 engaged in physical activity for at least 60 minutes five days per week, while 50.1% spent at least three hours per day sedentary. Children now face a further concern is Childhood Psychosocial Dysfunction (CPD), which can negatively impact their mental and emotional health (Soliman et al., 2020). They risk suffering long-term consequences if this problem is not resolved.

Children learn best in an environment that offers them a range of options, meaningful learning circumstances, and opportunities to discover their interests. Vujičić et al (2021) state that the more diverse, exciting, and opportunity-rich the environment, the more neural networks will develop. The ideal setting may be created for this through outdoor play. Outdoor learning was found to reduce the sedentary time spent during typical classroom-based instruction (Marchant et al., 2019; Ne'matullah et al., 2022). Studies have shown that outdoor learning positively impacts children's social, emotional, physical, and cognitive well-being, which are crucial for children's development (Abd Talib et al., 2022). Children can study in a dynamic situation when their classroom is changed outside. This allows for mobility, stimulation, and attention, which helps students focus more effectively (Cameron & McGue, 2019). As a consequence, it will enhance classroom health and happiness, widen skill development, and promote learning and engagement (Quibell et al., 2017).

Despite various research on outdoor play and its effect, it is also essential to take note of the different types of outdoor play and the psychosocial elements that are affected, to ensure that it can be implemented easily, whether in school or at home. Thus, through this study, policymakers, educators, and caregivers are able to understand the different types of outdoor play that can affect children's psychosocial well-being to mitigate the abovementioned issues.

## Methods

This study examines the research on the various types of outdoor play as strategies for enhancing children's psychosocial well-being. The methodological concept for reviewing the literature on outdoor play and children's psychosocial development followed systematic reviewing techniques. It emphasised transparent and rigorous approaches in identification, quality assessment, and synthesis studies.

## Search Strategy

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) criteria were utilised for this narrative review to search for suitable literature for this study. The current narrative review was conducted using Arksey and O'Malley's (2005) methodological framework, which included the following steps: (1) identifying research questions, (2) identifying relevant studies, (3) selecting relevant studies, (4) charting the data, and (5) collating, summarising, and reporting the results.



Figure 1. Methodological Framework (Arksey &amp; O'Malley, 2005)

Although outdoor play recently gained focus in the education system, there are still limited literature resources on the impact of outdoor play on children's psychosocial well-being. Therefore, the research question addressed for this review was, 'What is empirically known from the existing literature about outdoor play on children's psychosocial?' This question served as a guide for subsequent research in this study. Table 1 summarises the underlying research questions and research objectives.

Table 1

*Research questions and research objectives.*

Research Question	Specific Objective
1. What are the design types of the studies related to outdoor play among children?	1. To identify the main types of design used in studies on outdoor play in preschool.
2. What are the purposes and topics for which outdoor play is developed?	2. To identify the purpose and topics most frequently investigated in the studies about outdoor play in preschool.
3. What outdoor play types and psychosocial elements have been researched by past research?	3. To identify the outdoor play types and psychosocial elements been researched by past researchers.
4. What is the effectiveness of outdoor play on children's psychosocial well-being?	4. To summarise the effectiveness of outdoor play on children's psychosocial well-being.

The studies relevant to the prior research were found using search strings and keywords in four online databases: Education Resources Information Center (ERIC), Scopus, Science Direct, and Web of Science (WOS). To help refine the search strings, the Boolean operators OR and AND were utilised. Table 2 shows the search strings and keywords that were used.

Table 2

*Search string/Keyword*

Database	Search string/Keyword
Education Resources Information Center (ERIC)	((“impact*” OR “influence*” OR “significan*”) AND (“outdoor learn*” OR “outdoor activit*” OR “outdoor play” OR “outdoor game” OR “free learn*” OR “free activit*” OR “free play” OR “free game”) AND (“child*” OR “preschool*” OR “kid*” OR “kindergarten*” OR “preK”) AND (“psycho*” OR “social*” OR “psychosocial*” OR “health” OR “welfare*” OR “well-being*”))
Scopus	TITLE-ABD-KEY((“impact*” OR “influence*” OR “significan*”) AND (“outdoor learn*” OR “outdoor activit*” OR “outdoor play” OR “outdoor game” OR “free learn*” OR “free activit*” OR “free play” OR “free game”) AND (“child*” OR “preschool*” OR “kid*” OR “kindergarten*” OR “preK”) AND (“psycho*” OR “social*” OR “psychosocial*” OR “health” OR “welfare*” OR “well-being*”))
Science Direct	((“impact?”) AND (“outdoor learn?” OR “outdoor activit?” OR “outdoor play?”) AND (“child?” OR “preschool?”) AND (“social?” OR “psychosocial?” OR “well being?”))
Web of Science (WOS)	TS=((“impact*” OR “influence*” OR “significan*”) AND (“outdoor learn*” OR “outdoor activit*” OR “outdoor play” OR “outdoor game” OR “free learn*” OR “free activit*” OR “free play” OR “free game”) AND (“child*” OR “preschool*” OR “kid*” OR “kindergarten*” OR “preK”) AND (“psycho*” OR “social*” OR “psychosocial*” OR “health” OR “welfare*” OR “well-being*”))

The research team established inclusion and exclusion criteria to streamline the search and exclude irrelevant papers, duplicate entries were removed, and the remaining papers were assessed for eligibility from the titles and abstracts. The eligible articles were then displayed in a PRISMA flow chart based on the established criteria indicated in Table 3.

Table 3

*Inclusion and Exclusion Criterion*

Inclusion criterion	Exclusion criterion
1. Articles published from 2018-2022	1. Articles published before 2018
2. English language	2. Other languages
3. Focus on outdoor play	3. Not related to outdoor play
4. Focus on children’s psychosocial	4. Not related to children’s psychosocial
5. Journal articles	5. Full text not attained

The research team carried out the data mapping process by discussing and determining that the following attributes of the articles should be extracted and included in the chart: author, year of publication, and focus elements. The vital information was gathered and

charted from each finalised article. The research team then analysed the data in the literature matrix to ensure it adhered to the pre-determined inclusion and exclusion criteria. The findings were finalised and presented in a report to assist the research team in generating the scoping review.

### Selecting for Relevance

Through the search, 490 citations were identified. Based on Figure 2, 155 articles were retrieved from the Web of Science (WOS) database, 204 were found from Scopus, 104 were from Science Direct and 27 from Education Resources Information Center (ERIC).

One hundred and five duplicates were removed, and 385 citations were screened by title and abstract. Three hundred and thirty sources were excluded from the screening process, and the remaining 55 articles were assessed through data extraction to check their eligibility. After evaluating the data, 39 articles were excluded due to multiple reasons: (a) 17 studies did not include psychosocial aspects; (b) two narrative reviews and one scoping review article; (c) two studies focused on the indoor play; (d) 10 due to inaccessible or no full-text articles; (e) seven were excluded due to other reasons such as learning disability, not in the target group and many more. The remaining 16 studies were selected to be included and discussed in this narrative review.

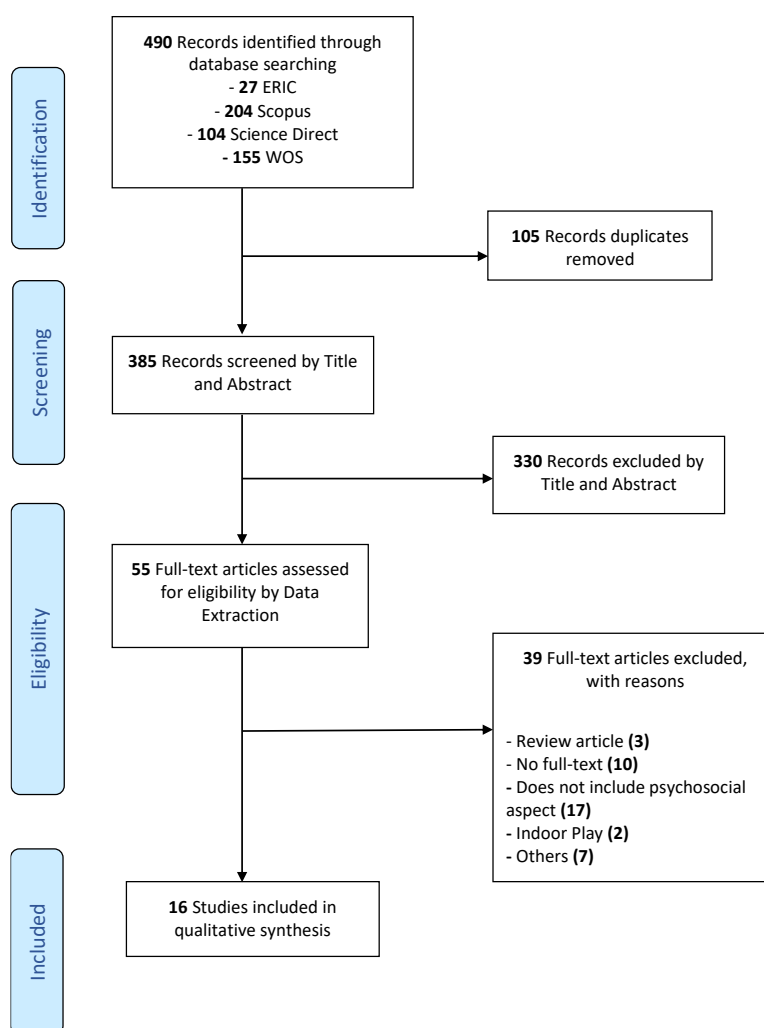


Figure 2. Flow diagram of systematic research technique

### Methodological profile and quality of included studies

To ensure that the study is in trend with the current climates and situation, only studies from 2018 to 2022 are included in this narrative review. The distribution of the studies was mostly from 2018 (n=8) (Agostini et al.; Gal-Szabo et al.; McCree et al.; Morrier & Ziegler; Ng & Bull; Sando; Storli & Hansen Sandseter; Vandermaas-Peeler et al.). There are n=3 studies from 2019 (Gil-Madrona et al.; Loukatari et al.; Wainwright et al.) and 2022 (Dodd et al.; Hernández & Jabbari; Traynor et al.), respectively. Meanwhile, in 2021, two studies were found (Howe et al.; Rajabi et al.).

In line with the aim of the study, the methodologies of studies were presented in the form of a literature matrix. The studies investigating outdoor play and children's psychosocial varied in conducting research. The majority of the studies (n=7) had conducted studies by applying quantitative research designs (Dodd et al., 2022; Gal-Szabo et al., 2018; Gil-Madrona et al., 2019; Hernández & Jabbari, 2022; Howe et al., 2021; Rajabi et al., 2021; Storli & Hansen Sandseter, 2018). In contrast, n=5 studies used qualitative research design (Agostini et al., 2018; Morrier & Ziegler, 2018; Ng & Bull, 2018; Traynor et al., 2022; Sando, 2018). Additionally, four articles were conducted using mixed-method (Loukatari et al., 2019; McCree et al., 2018; Vandermaas-Peeler et al., 2018; Wainwright et al., 2019).

The participant in the studies that have been collected could be categorised into three groups, the children, the teachers or educators and the parents or caregivers. Most (n=5) of the target group in the articles were children (Loukatari et al., 2019; Morrier & Ziegler, 2018; Sando, 2018; Storli & Sandseter, 2018; Wainwright et al., 2019) and the parents or caregivers (Dodd et al., 2022; Gil-Madrona et al., 2019; Hernández & Jabbari, 2022; Rajabi et al., 2021; Vandermaas-Peeler et al., 2018). Meanwhile, there were n=2 articles (Agostini et al., 2018; Howe et al., 2021) with teachers or educators as their participants, and n=2 studies (Gal-Szabo et al., 2018; McCree et al., 2018) used the children, teachers and parents as their participants. Besides that, the other two studies' target groups were a combination of both the children and parents (Traynor et al., 2022) and also the children and teachers (Ng & Bull, 2018).

### Results

Table 4

*Literature matrix*

<b>References &amp; Titles</b>	<b>Purpose of Study</b>	<b>Outdoor Play Types</b>	<b>Psychosocial Elements</b>
Dodd et al (2022)	To examine associations between the time children aged 5–11 years spent playing adventurously and their mental health.	Adventurous play	Internalising problems (emotional problems and peer relationship problems) Externalising problems (conduct problems and hyperactivity/inattention) Positive affect

Storli & Hansen Sandseter (2018)	The relationship between children's play, well-being, and involvement, and identify how children play in indoor and outdoor environments at their early childhood education and care (ECEC) institution.	Functional play (physical play activities, e.g., riding bikes) Constructive play (building play activities, e.g., building blocks) Symbolic play (creative/imaginative play – e.g., role-play) Mixed play	Well-being Involvement
Traynor et al (2022)	To develop a program theory using the Theory of Change approach.	Physical play (running, climbing, PA) Constructive play (loose parts & educator-led) Imaginative play (dramatic & sociodramatic play) Exploratory play (nature experiences)	Cognitive outcomes – Cognitive flexibility, creativity & imagination, self-regulation, attention, problem-solving, physical self-efficacy Social, emotional & environmental outcomes – Social & emotional development, environmental awareness
Rajabi et al (2021)	This study explored the associations between frequency and length of play and mental health difficulties among children across Iran during the second wave of the COVID-19 outbreak.	Does not specify	Internalising problems (emotional problems and peer relationship problems) Externalising problems (conduct problems and hyperactivity/inattention) Positive affect
Gal-Szabo et al (2018)	The relations between direct assessments of emotional knowledge and naturalistic observations of behaviour during free-play periods.	Social play -Interactive play, pretend play, constructive play, creative play	Emotion knowledge (expressive recognition, receptive recognition, and situational understanding.)
Loukatari et al (2019)	To examine the effect of a structured, playful activity program on the development of social skills in kindergarten children during break time in the schoolyard.	Imaginative play (The giant's hoops) Physical play (The lake with the ducks/Hopscotch and Hoop) Games with rules	Cooperation Assertion Self-control Externalising Internalising Hyperactivity



Ng & Bull (2018)	To document strategies adopted by teachers to facilitate SEL based on direct observation of teachers in the classroom	Free play, e.g., climbing equipment, playground play	Self-awareness and self-concept Social awareness Relationship management
Morrier & Ziegler (2018)	To determine the changes in social behaviours displayed by typical children and children with ASD.	Imaginative play (Buddy Games-movement songs)	Social interactions
Hernández & Jabbari (2022)	This study investigates the relationship between the change in children's activities during the COVID-19 pandemic and the effect of these changes on their social skills.	Does not specify	Social skills
Agostini et al (2018)	To explore teachers' perceptions of children's developmental trajectories over two school years, investigate whether teachers' perceptions differed between the two kindergartens, one characterised by a consolidated OE approach and the other by a more traditional method of education.	Free play, guided play, free exploration, guided exploration, physical education, guided trip, and others.	Awareness of the Surrounding Environment Social and emotional development Language Cognitive development
Vandermaas-Peeler et al (2018)	To examine parents' beliefs about the importance of play and nature experiences for early childhood development.	Independent exploration Physical play (Running, jumping and other gross motor skills)	Cognitive development Social development
Wainwright et al (2019)	To investigate Foundation Phase students' participation levels and engagement in activities.	Constructive play (Stone themes activity, stick-man collage)	Involvement



Gil-Madrona et al (2019)	To investigate children's caregiver's perspectives on the impact of public playgrounds on children's motor, social, and creative development, as well as obesity reduction	Playground	Social skills Motor skills Creativity
McCree et al (2018)	The study examines the project affected the children's academic performance, well-being, and connection to nature.	Constructive play (e.g., shelter building) Physical play (e.g., tree climbing)	Well-being (Self-regulation and self-resilience) Involvement Engagement Nature connection Academic attainment and attendance
Sando (2018)	To examine children's well-being and physical activity in various outdoor locations to determine the relationship between the outdoor environment and their health.	Functional play Constructive play Symbolic play Mixed play	Well-being Social interactions
Howe et al (2021)	To investigate the perceptions and beliefs of Scottish early childhood educators working in Outdoor Play Programmes (OPPs) and nursery programs regarding outdoor play.	Risky play	Self-esteem and confidence  Connection to the natural environment  Mental health  Behaviours

### Research Purposes

The reasons for conducting the study on outdoor play and children's psychosocial were different according to the study's needs. Hence, the 16 finalised papers retrieved were categorised according to the general purposes of the studies. The main purpose can be seen

in most of the articles, with  $n=6$  articles (Dodd et al., 2022; Storli & Hansen Sandseter, 2018; Rajabi et al., 2021; Gal-Szabo et al., 2018; Hernández & Jabbari, 2022; Sando, 2018) were the association and relationship between outdoor play and children's well-being. Next, the second most research aimed is the perception of the parents and teachers on outdoor play and children's well-being with  $n=4$  articles (Agostini et al., 2018; Gil-Madrona, 2019; Howe et al., 2021; Vandermaas-Peeler et al., 2018). Besides that,  $n=3$  studies (Matsouka et al., 2019; Morrier & Ziegler, 2018; McCree et al., 2018) researched the impact of outdoor play on children's well-being. Some articles aimed to develop a theory by researching the impact of outdoor play on children's well-being (Traynor et al., 2022), documenting strategies adopted by teachers to facilitate well-being (Ng & Bull, 2018) and investigating the level of participation and engagement during outdoor play (Wainwright et al., 2019).

### Research Elements

All 16 articles identified and emphasised the four main outdoor play types: physical play, imaginative play, constructive play and games with rules. While some research interpreted the play types by providing outdoor play activities examples, outlining the play types' sub-categories, and even defining equivalents play types. Only  $n=3$  studies (Sando, 2018; Storli & Hansen Sandseter, 2018; Traynor et al., 2022) provided both the outdoor play types and the outdoor play activities. Meanwhile, the majority ( $n=8$ ) of the studies (Agostini et al., 2018; Gil-Madrona et al., 2019; Loukatari et al., 2019; Morrier & Ziegler, 2018; McCree et al., 2018; Ng & Bull, 2018; Wainwright et al., 2019; Vandermaas-Peeler et al., 2018) only provide outdoor play activities in their study. The remaining  $n=3$  articles (Dodd et al., 2022; Gal-Szabo et al., 2018; Howe et al., 2021) provided outdoor play type only, while the other  $n=2$  articles (Hernández & Jabbari, 2022; Rajabi et al., 2021) did not specify any outdoor play types or activities in their studies.

### Discussion

The outdoor play types in this narrative review have been derived from Piaget's (1962) and Smilansky's (1968) classification of play. Piaget's (1962) theory of play specifies three types of play, the behavioural categories of sensorimotor, symbolic, and games with rules, corresponding to the first three stages of his theory of human development (Lillard, 2015). Meanwhile, Smilansky (1968) focused on functional, constructive, dramatic, and games with rules. Hence, based on the 16 studies and the two classifications of plays, this research concludes that the four major outdoor play types are physical play, constructive play, imaginative play and games with rules. This section discusses the definition of the outdoor play types, their examples and their impact on children's psychosocial well-being.

### Physical Play

During physical play, children move around and employ their gross motor abilities. Locomotor, rough-and-tumble, and risky play are examples of physical play. Locomotor play is movement-based play, such as chasing, climbing, running and leaping. It is crucial in child development because it helps to grow the cerebellum at the base of the brain (Koziol et al., 2012). Furthermore, it helps children manage their energy levels, develop strength, physical competence, and confidence, and contribute to their capacity to self-regulate.

Meanwhile, rough-and-tumble play is characterised by close bodily contact with other players. Rolling, tickling, and other types of touch-based play are examples of this. It is a process in which children assess their relative strength, discover their physical flexibility, and

indulge in the thrill. Neuroscientific studies have connected the rough-and-tumble play to the development of negotiation skills and interpersonal communication abilities (Lindsey & Colwell, 2013). Additionally, it is correlated with the building of solid emotional bonds or attachments between children and their parents and with school-aged children's capacity to interpret emotional expressions. These factors all contribute to the development of emotional and social skills and understandings (Jarvis, 2010, as cited by Whitebread et al., 2018).

Finally, risky play, also known as deep play, assists the child in confronting and overcoming obstacles. It entails developing self-belief in the face of difficulty, creating resilience and problem-solving confidence, physical competence, and survival abilities. Risk-taking in play benefits children on several levels (is). Aside from the benefits described above, physical play encourages children to be active during the day, particularly in preschool, allowing them to burn energy and refocus in the classroom (Whitman, 2018).

### **Constructive Play**

Children engage in constructive play by creating or building things out of non-manufactured items such as boxes, toilet paper rolls, glue, wood, and leaves or manufactured materials such as LEGO. Constructive play begins in infancy and grows in complexity as children develop. Babies begin this play by placing items in their mouths to see how they feel and taste, which is also known as exploration play. As toddlers, they start to build with blocks, play in the sand, and draw.

Children are encouraged to explore objects and look for patterns during constructive play to figure out what works and what does not. Children develop satisfaction when they finish a task while engaging in constructive play. Children who acquire confidence in manipulating items improve their ability to generate ideas and deal with numbers and concepts (Anderson-McNamee & Bailey, 2010). Furthermore, it lets the mind run wild and new ideas bloom through experimentation with various materials and methods of creating items. When children play with objects, they establish goals and challenges for themselves, track their progress toward them, and build an expanding array of cognitive and physical abilities and strategies. As a result, constructive play develops the growth of perseverance and a positive attitude toward challenges (Sylva et al., 1976, as cited by Whitebread et al., 2018).

### **Imaginative Play**

Imaginative play is a type of play that makes extensive use of children's imaginations. They will make up any scenario or situation based on their surroundings and environments. This is one of the most effective forms of play for helping children develop higher-level cognitive abilities (Nicolopoulou et al., 2009). Symbolic play, dramatic and socio-dramatic play, and fantasy play are all examples of this type of play. Symbolic play occurs when a child participates in symbolic representation with an available item (Vygotsky, 1976). A stick can be used to symbolise a horse, while a rock can be used to represent a baby. Through symbolic play, children may experience the idea and get a deeper knowledge without feeling intimidated as they would if they were actually taking care of a baby or a horse. The use of symbols fosters problem-solving abilities and mental flexibility.

Dramatic play entails replicating recognisable characters and narrative lines from the child's socially constructed environment rather than personal or domestic scenarios. This type of play necessitates no social connection with other children (Biddle et al., 2013). As opposed

to dramatic play, socio-dramatic play is concerned with children's everyday personal and social experiences. Socio-dramatic play typically requires at least two children, while some children may and do play in this manner alone. Socio-dramatic play may help them cope with frightening, painful, or perplexing feelings like bullying at school. Children emulate real-world events while adding aspects of fantasy in socio-dramatic play. Their play transforms into a therapeutic tool for coping with unconscious emotions, anxieties, and wishes. It is a very beneficial type of play because it helps children perceive their environment and process their experiences and emotions (O'Connor, 2017). They also utilise it to elicit various responses and gauge how potential acts would be received. Children can use socio-dramatic play to investigate how others feel, negotiate or compromise, and stand firm for their intentions.

Unreal settings, characters, and abilities, such as being a hero in a zombie apocalypse, characterise fantasy play. Fantasy play allows children to explore the boundaries between reality and absurdity while providing an outlet for the unconscious, notably dreams and the darker parts of their imagination. Children can use fantasy and imagination to explore the possibilities of 'what if' and take on different roles and identities. These are vital strategies for children to express and control their emotions and cope with their surroundings' fears and novelty (Singer, 1995). It creates an environment in which confidence increases and the child feels complete control. It gives the child delight and pleasure, and the developing brain learns these emotions as a habit. It promotes self-esteem and self-regulation while also instilling social skills in the communication and collaboration necessary to turn the play into a narrative with other children (O'Connor, 2017).

### **Games with Rules**

Young children are driven to make sense of their surroundings, and rules are a big part of that. Games with rules include cooperative play, which frequently includes winners and losers. These games are distinguished by child-controlled regulations and hence differ from competitive games commonly referred to as "sports." As children grow from early to middle childhood, rule-based games become increasingly visible (Biddle et al., 2013). Playing games helps children develop their grasp of rules, but their primary developmental benefit stems from their inherently social nature. Young children develop a variety of social skills when playing games with their friends, siblings, and parents, such as sharing, taking turns, and understanding others' perspectives (DeVries, 2006).

### **Psychosocial Elements**

The broader idea of "psychosocial well-being" includes social and communal well-being as well as emotional or psychological well-being (Martikainen et al., 2002). The term "quality of life" is similar to that of psychosocial well-being in that it incorporates emotional, social, and physical components (Eiroa-Orosa, 2020). The term "psychosocial well-being" has been defined in a number of various ways since it is now used in literature to refer to a wide range of qualities, including but not limited to mental, emotional, social, physical, economic, cultural, and spiritual health. A person's level of happiness in their sexual, emotional, social, environmental, cognitive, religious, moral, and spiritual life is referred to as their psychosocial health, per Husain (2021). It is widely agreed that a model of psychosocial well-being should include and depict how various aspects of overall well-being are connected to one another (Linley et al., 2009). Ryff's (1989) model of psychological well-being can be used to group the psychosocial components taken from the 16 studies. These components included six key

elements: a) self-acceptance; b) positive relationships with others; c) autonomy; d) environmental mastery; e) purpose in life; and f) personal growth.

### Recommendation for Future Studies

The purpose of this study was to present a narrative overview of the relevant literature on the various types of outdoor play and their effect on children's psychological well-being. Although the study identified a total of 16 articles, it is still thought that this number is insufficient, particularly in the Asia region. Therefore, it is recommended that future researchers expand the knowledge they have about the impact of outdoor play on children's psychological well-being by conducting observational studies, interviews and surveys with the children, parents, and teachers that focuses on the effect of the four major outdoor play types and their effects on each element of children's psychosocial.

### Conclusion

Although there are more than four outdoor play types mentioned in the 16 studies, it can be concluded that each of them can be classified into four categories: physical play, constructive play, imaginative play and games with rules. This is due to the fact that each type of play is usually intermingled with the other, and oftentimes, the children tend to intermix each type of play during their playtime. Nevertheless, it is shown that all four types of play positively impact children's psychosocial well-being. Despite the lack of research specifically on the impact on psychosocial well-being, as it is still a new concept, the narrative review considered articles that studied the impact of children's social, emotional, cognitive, and environmental well-being as well.

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