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Exploring kindergarten teachers' views and roles regarding children's outdoor play environments in Oman

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The purpose of this study was to explore kindergarten teachers' views and roles regarding outdoor play environments in Omani kindergartens. Thirty kindergarten teachers from 15 private kindergartens were observed and interviewed. The results indicated that teachers recognize the importance of outdoor play in children's development and learning. Although teachers are satisfied with the safety conditions of the outdoor play environments, they feel they need to know more about how to maintain safety criteria in this environment. Teachers most frequently took on the role of supervising and guiding children's behaviour or setting up materials for play, whereas providing verbal comments and participating in play were less common. Omani outdoor play environments were found to face specific difficulties, such as the hot climate, a shortage of materials and equipment, a lack of natural surroundings and the short length of time spent outdoors. The article concludes with policy implications and pedagogical recommendations.

Keywords: outdoor play environments; kindergarten teachers; Oman

Introduction

Outdoor play environments are generally considered a fundamental and necessary component of early childhood settings, supporting children's physical, cognitive, emotional, language and social skills development (Dodge, Colker, and Heroman 2010; Milteer and Ginsburg 2012).

Outdoor play is considered a natural way for children to be healthier and physically active (Fjortoft 2004; Lovasi et al. 2011). However, educators have stressed that outdoor play environments need to be well designed, safe, attractive and supportive in order to scaffold children's learning and development (Dodge, Colker, and Heroman 2010; Milteer and Ginsburg 2012). The study reported here took place in Omani kindergartens (for children aged 3–6 years old) and it set out to explore children's outdoor play environments by observing and interviewing kindergarten teachers to find out how children's outdoor play experiences are implemented, and to explore teachers' views and roles in supporting and extending children's play.

Background

Traditionally, outdoor play environments in early years settings have often been covered with asphalt and equipped with climbing bars, swings, sandpits, seesaws

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and slides (Fjortoft 2000). Some outdoor environments have natural areas with grass, trees, sand and water, along with age-appropriate playground equipment (Dodge, Colker, and Heroman 2010). This type of outdoor environment has been described as a unique learning setting (Brown 1994), and as one of the most natural and powerful sites for learning in early childhood programmes (Bilton 2002).

Playing outdoors is recognized as both a need and a right for young children (Aziz and Said 2012), and has the potential to promote children's well-being (Lovasi et al. 2011). Research also suggests that outdoor play is positively associated with children's academic achievement and social-emotional intelligence (Mirrahimi et al. 2011). Exposure to the outdoor environment enhances children's own investigations (Waite, Davies, and Brown 2006), supports motor development and eye-hand-foot coordination (Dodge, Colker, and Heroman 2010), reduces tension (NAEYC 2007) and affects personality formation and cognitive growth (Oloumi, Mahdavinjad, and Namvarrad 2011).

In addition, natural outdoor environments allow children to explore the world first-hand (Ouvry 2003); to experience a sense of wonder, mystery and enchantment (Talbot and Frost 1989) and to show more creativity in their play (Aziz and Said 2012; Fjortoft 2004). Research indicates that children who do not have positive experiences of natural outdoor play environments have been found to develop negative or hostile attitudes to nature such as phobias, fears and anxieties (Wilson, Kilmer, and Knauerhase 1996).

Compared to indoor environments, outdoor environments provide more fundamental stimulation for all aspects of children's development (Moore and Wong 1997). According to Dodge, Colker, and Heroman (2010), the outdoor environment is a more suitable setting than indoors for the development of large muscle-intensive and motor skills, allowing children to engage in a wide range of activities like playing in sand and water, swinging, climbing, sliding, jumping, hanging, digging and using wheeled toys (Greenman 2005).

Children play in different ways in the outdoor environment. Holmes and Procaccino (2009) described three types of playground: (1) traditional playgrounds which consist of an open area and are covered with asphalt or simply have dirt or grass surfaces with some play equipment, (2) contemporary playgrounds which are covered with polyvinyl chloride plastic or floor coverings such as wood chips, grass or alternative artificial surfaces and (3) adventure playgrounds which are constructed from the natural environment and contain areas for playing games, fireplaces for cooking and garden sand construction areas. In the Sultanate of Oman, traditional playgrounds are most common, while other types of outdoor play environments like adventure playgrounds or social play settings are very rare.

Outdoor play environments may provide for sand and water play, wheeled toys (e.g. bicycles, scooters, wheel-barrows and trolleys), planting a garden, caring for living things (e.g. rabbits, birds and insects), playing games and using traditionally indoor materials outdoors (e.g. musical instruments, books, brushes and papers) (Dodge, Colker, and Heroman 2010). In addition, playground equipment, such as swings, slides, ramps, tunnels, platforms, stairways and stepladders, balance beams and log structures, climbing bars and seesaws, is recognized as a main part of outdoor play environments (Fjortoft 2004).

Despite the inherent importance of these outdoor areas, early childhood teachers are a major factor in the utilization of outdoor play experiences and activities (Doliopoulou and Rizou 2012). Researchers (e.g. Renick 2009; Van Hoom et al.

2007) have found that teachers' beliefs, attitudes and perceptions and the way they engage with children affect the function of the outdoor play environment.

In early years settings, it is rare to observe children walking, running or playing during outdoor play times without a teacher's supervision. Teachers need to intervene to prevent children from engaging in dangerous behaviour. Thus, teachers' interactions with children during outdoor play are an important feature of their competence (Van Hoom et al. 2007). These interactions include, but are not limited to, facilitating the play, participating in play, rearranging equipment, providing verbal comments, helping children in play, offering resources, suggesting solutions for play problems and so on (Davies 1997).

According to Dodge, Colker, and Heroman (2010), teachers have to supervise children at all times and to step in to stop dangerous behaviour and prevent injuries. Observing children provides the information teachers need to determine how to respond best in order to extend their learning. Teachers also need to set up materials in the children's outdoor play environment to enhance children's play experiences. Kindergarten teachers often think about the outdoor environment mainly in terms of safety and supervision (Jones 1989). Researchers studying the roles of teachers during children's outdoor play found that maintaining safety and directing children's play were the most common roles played by teachers in the outdoor environment (Chakravarthi 2009; Davies 1997; Renick 2009).

McClintic and Petty (2015) conducted a case study based on American early childhood teachers' beliefs and practices regarding outdoor play. They found that teachers viewed their main responsibility outdoors as keeping the children safe and providing guidance. Moreover, all teachers perceived that the physical design of the outdoor environment posed limitations for planning, preparation and implementation. Although teachers had some understanding of the benefits of outdoor play in the development of children, they showed minimal knowledge and skills regarding outdoor play environments.

Davies (1997) examined the role of preschool teachers in outdoor play. She found that although teachers felt that their beliefs about their role were consistent with what is written in the theoretical literature regarding outdoor play in early years education, their involvement during children's outdoor play was often limited.

Renick (2009) explored how teachers' beliefs and practices influence preschool outdoor play. She found that teachers believed that outdoor play was important for the development of young children. Despite this, teachers were found to have minimal knowledge of the outdoor play environment and little motivation to provide appropriate guidance to children during outdoor play. She found that the physical design of the outdoor environment posed limitations for teachers' planning, preparation and implementation in that environment.

Chakravarthi (2009) investigated preschool teachers' beliefs and practices during children's play in outdoor environments. Results showed that teachers considered the outdoor environment to be vital in enhancing a child's development and learning about nature, and they perceived their role to be supervising children, helping them find a direction in their play and interacting with them. Teachers were found to be spending most of their time monitoring children and facilitating their play, while minimal time was devoted to participating in children's play. According to Renick (2009), teachers who understand how to encourage, support and extend outdoor play activities are more likely to enrich these experiences significantly.

In spite of the fact that outdoor environments are important for all aspects of children's development, in some cases early childhood teachers underestimate the role of outdoor environments (Henniger 1994). Many teachers view the outdoor space available at their settings as a place designed mainly for children to engage in active, noisy and physical play. As argued by Davies (1996), teachers often feel that play is not central to the learning process, since they perceive outdoor time as a break from classroom activities.

The study context

The Sultanate of Oman is an Arab Gulf country located in the south-eastern part of the Arab semi-peninsula. Its population is approaching 2.8 million, and its area is about 310,000 km². The desert climate in most Omani cities is characterized by long, hot and humid summers and short, warm winters (MOE (Ministry of Education) 2011). In the summer, Oman has very high temperatures and a big difference between maximum and minimum temperatures, especially in the inland areas.

In Oman, the official objectives of preschool education are based on the principles of a self-learning philosophy and a basic education philosophy (MOE 2011). The number of kindergartens has increased rapidly during the past decades. There are two types of kindergarten supervised by MOE in Oman. These are: (1) private kindergartens, which are mostly run commercially (or 'for profit') and work according to the MOE's National Kindergarten Curriculum and (2) Holy Quran kindergartens, which are run and funded by the private sector and have their own curriculum and focus more on teaching children to memorize the Holy Quran. Both types of kindergarten accept children aged 3–6 and are regulated by the MOE. According to government statistics, there are currently 103 private kindergartens in Oman (serving around 25,060 children) and 90 Holy Quran kindergartens (serving around 10,000 children) (MOE 2014).

In the context of the rising number of children registered in kindergartens, there has been an increased policy focus on this stage of the education system. Recent developments have included the introduction of a National Kindergarten Curriculum, originally developed in 2002 and first implemented in 2004. One of the components included in the curriculum is organizing children's educational environments both indoors and outdoors (Omani Kindergarten Curriculum 2002). Based on the kindergarten curriculum, one hour in the daily schedule is dedicated to outdoor play. Although there are guidelines on how to set up outdoor learning environments and the type of suggested play equipment, the outdoor play activities received quite sparse treatment within the curriculum.

Although kindergarten buildings are carefully constructed to protect against the hot weather and are provided with air conditioners, in many kindergartens the outdoor areas do not have sun protection equipment. Therefore, some kindergartens do not allow children to have daily outdoor play experiences because of the hot weather. Others cover the outdoor play area with sheets of heavy fabric, although the children are still exposed to the sun; and others schedule outdoor play periods earlier in their daily routine before the temperatures start rising. Reducing the time spent outdoors has also been found in some other countries which face inclement weather (Kos and Jerman 2013; Waite 2010). However, Norwegian children still spend 31% of the time outdoors during the cold months of the year, whereas in Slovenia, children spend only 13% of time outdoors (Kos and Jerman 2013). Waite's

(2010) study found that teachers in England viewed inclement weather as one the most frequent obstacles that prevent potential outdoor learning. It is worth mentioning that despite the fact that Scandinavian countries experience cold and dry weather conditions, children have more opportunities to play outdoors (New, Mardell, and Robinson 2005).

Although the MOE allocates one hour in the daily schedule to outdoor play, many kindergartens reduce this time by almost half. Lack of time spent outdoors could limit the value of outdoor play. The term ‘outdoor deprivation’ has been coined as one of the challenges relating to children’s play (Louv 2005). Greenman (2005, 284) clarified this deprivation by stating: ‘With each passing year, children are losing ground literally. Children are increasingly entrapped in the concrete web of our good intentions. Children are increasingly fenced off from the world out of



KG-A: An outdoor play environment which is covered with green grass and equipped with swings and seesaws.



KG-B: A home-based outdoor environment which is enclosed in sheets of heavy fabric and has fans.



KG-C: An outdoor environment which is crowded with children and surrounded by a fence.



KG-D: A narrow outdoor environment which is equipped with plastic seesaws and homes and lined with colorful fabric.

Figure 1. Outdoor play environments in Omani kindergartens context.

fear, convenience, and often a combination of apathy and ignorance. Both at home and in childcare, children are losing time, space, and the variety of experience outdoors that has been integral to the development of human kind. They are losing habitat'.

Furthermore, the adult/child ratio, which in most Omani kindergartens is 25:1, is another issue. With the absence of assistant teachers, only one teacher is expected to teach and observe her children in both indoor and outdoor areas.

Another problem related to kindergarten buildings is that many kindergartens are located in buildings (often large villas) not initially designed to be kindergartens and where the play space is below the minimum recommended criteria (75 square foot of outdoor play areas per child). Examples of outdoor play environments in Omani kindergartens are illustrated in Figure 1.

Whatever weight is given to the above observations and remarks, it is clear that the status of children's outdoor play environments in Omani kindergartens is problematic. However, relatively little is known about the ways in which outdoor play periods take place, the length of time dedicated to them and teachers' roles during these periods. The existing research literature in this area is minimal. Consequently, a more in-depth investigation into children's outdoor play environments is a top priority at this time, which is why this present study was designed and carried out.

Aims of the study

The main purpose of the study reported here is to explore Omani kindergarten teachers' views and roles regarding children's outdoor play environments. Therefore, the study aims to: (1) investigate Omani kindergarten teachers' views of the value of children's outdoor play environments; (2) explore the role of kindergarten teachers in children's outdoor play environments; and (3) identify the difficulties faced by teachers relating to outdoor play environments.

Methods

Participants

The study participants were kindergarten teachers in Oman. Fifteen private kindergartens were randomly selected from one particular province of Oman (Muscat, the capital), representing 20% of the kindergarten population. Two kindergarten teachers from each kindergarten ($n = 30$) were randomly chosen to be observed and interviewed to obtain greater in-depth understanding of their perceptions, roles and difficulties in children's outdoor play environments. The participants were given the right to decline to participate or to withdraw at any time or not to answer a particular question. The majority of the kindergarten teachers are qualified at college diploma level (73%). Half the teachers (49.5%) had five years of teaching experience or less. Regarding their area of specialization, a total of 60% had an early childhood-related certificate, whereas 40% had a non-specialized certificate (such as Business Studies, Arabic Language, Arts, Islamic Education). All kindergarten teachers involved in this study were females, as are all other staff working in Omani kindergarten settings. Twenty-six participants (87%) were Omani native citizens, while four (13%) were non-Omani.

Research instruments

For the purpose of this study, two research instruments were used: a semi-structured interview and a structured observation checklist. The interview schedule included six domains relating to: (1) the general importance of outdoor play environments; (2) outdoor play activities; (3) the teacher's role in outdoor play environments; (4) individual play areas; (5) safety conditions; and (6) perceived difficulties facing outdoor play in Omani kindergartens.

The structured observation instrument was used to explore kindergarten teachers' roles during outdoor play, and to record the areas most frequently visited and supervised. The observation checklist consisted of two sections: (1) teachers' roles during children's play (e.g. supervising children's behaviour, setting up materials for play, helping children find the direction of play, facilitating play, participating in play and providing verbal comments and (2) specific outdoor areas (e.g. equipment, sand and water, bicycle, balls, block and home area).

To ensure the validity of the interview protocol and the observation checklist, the researchers consulted eight referees specializing in the fields of early childhood education and educational psychology at Sultan Qaboos University, who were asked for their feedback on the individual questions and observation items. This validation process led to a number of minor changes to the instruments.

Before being administered, both instruments were field-tested with a group of teachers from two private kindergartens chosen from the study population outside the original study sample. Based on the pilot study, some items/questions were added, others were excluded and others were reworded.

Data collection

Data from the interviews and observations were collected over one semester (mid-February–late May, 2013). Permission was sought from the Omani Ministry of Education to carry out this research. Before conducting the study, the researchers explained the study's aims to the participants, encouraged them to participate and assured them about confidentiality and anonymity. Teachers were observed during children's play for one session. The shortest observation was about 20 min, and the longest was 30 min. Observations of teachers' practices during children's play were obtained by two trained observers (graduate research assistants). Thus, each teacher was observed by two observers at the same time.

Interviews were conducted in the kindergartens by the authors of this article. As most participants were native speakers of Arabic, most interviews were conducted in the Arabic language, only two kindergarten teachers being interviewed in English. All interviews were conducted in the teachers' room at a time convenient to them. The length of the interviews varied between 15 and 40 min.

Data analysis

All interviews were recorded and transcribed. Information elicited through interviews was categorized into six types of knowledge claims or statements related to the research aims. Finally, findings relevant to each category were described to establish main themes within the categories, and quotes were used to support them.

The observation checklists were analysed quantitatively. Initially, each observation was completed independently by the observer in the outdoor play environment.

After the observation period ended, the two observers met and compared their responses which were discussed, refined and reanalysed.

Findings

The interpretation of the interviews and observations led to six knowledge claims or statements about the status of children's outdoor play environments in Omani kindergartens. These statements are presented here.

Statement 1: Most kindergarten teachers believed that the outdoor play environment is an essential part of the kindergarten daily routine. Although they recognize the importance of the role of outdoor play in children's development and well-being, they reported that the time devoted to outdoor play is rather short.

The interview findings revealed that the vast majority of kindergarten teachers (28 out of 30) (93%) include an outdoor play period in their daily routine because of its importance for child development and learning. They mentioned that it provides children with new and nature-related experiences which are not always available in indoor environments. For example:

Mezna¹: Every day my children discover and learn new things in the outdoor play environment ... Children love to play outdoors so much. When I ask them in the transition period to move outdoors, I see the happiness in their eyes. For me, it is really difficult to structure my daily schedule without having an outdoor play period.

Despite the teachers' recognition of the importance of the outdoor play environment, most of them (21 out of 30) (70%) indicated that the time spent playing outdoors is short (between 15 and 30 min a day). The most common reasons given for the limited time were the hot weather, completing the extensive curriculum demands and principals' attitudes towards outdoor play.

Maryam explained:

Children spend most of their time in the classroom, while they spend less time outdoors. I think 15 min a day is not enough for children to move and learn from outdoor play activities. It is totally unacceptable.

The interview responses reveal that the very hot weather not only affects the time spent outdoors but also the location of outdoor play in the daily schedule. The majority of teachers interviewed (22 out of 30) (73%) indicated that they schedule outdoor play directly after the morning circle period (around 8:50 am). Seven of them mentioned that they start their daily routine with outdoor play. Fatima stated:

Our outdoor play areas are covered with sheets of heavy fabric. This may not guarantee the protection of our children from heatstroke. Unfortunately, children are exposed directly to the sun. For that reason, my kindergarten principal and staff decided to make this period as early as we can, when the temperature has not yet gone up.

Against this background, two teachers indicated that they do not have an outdoor play period every day. According to their statements, outdoor play is scheduled only two or three days a week and is located after the meal period (around 9:30 am). Hissa summed up this view by saying:

We put our children's safety and health as a priority. As our outdoor play area is not designed to protect our children from the sun, we had to put a second plan, scheduling outdoor play for three days a week and making each period no more than 15 min. This could be a solution.

Statement 2: Kindergarten teachers do not plan specific and varied activities for the outdoor play period. Instead, they offer daily free play for children in different outdoor play areas.

Most teachers (26 out of 30) mentioned that outdoor play is the time when children can play freely and comfortably. Eight of them explained that neither their educational supervisors nor kindergarten principals require them to plan activities for these periods. They added that no guidelines are mentioned in their prescribed curriculum about how to design and employ outdoor play activities. According to their responses, children are free to play in whatever established outdoor area they choose without having specific and varied activities. Two teachers' comments are presented below:

Mezon: Well, I personally have a lot of duties in this kindergarten. My kindergarten supervisor knows that, as she does not put more pressure on me to plan specific activities for the outdoor play area.

Only five teachers (17%) indicated that they plan different daily outdoor activities for children. Fatima explained:

I usually do not leave children to play without engaging in planned activities. Each week I plan outdoor play activities to be implemented during the whole week, such as 'follow the leader' and 'throw balls' activities. I believed that children need structured outdoor play activities as well as free outdoor play activities.

Statement 3: The most common role kindergarten teachers play in children's outdoor environments is supervising and guiding children's behaviour, followed by setting out materials for play. Providing verbal comments and participating in play were found to be the least common roles practised by the kindergarten teachers interviewed.

As shown in Table 1(a), the majority of teachers (25 out of 30) (83%) were observed spending most of their time supervising and guiding children's behaviours. More than half (67%) set up materials for play. Less than half were found to help children find a direction for their play (37%) and to facilitate children's play (30%).

Table 1. Frequencies and percentages regarding kindergarten teachers' role in children's outdoor play.

Kindergarten teachers' role	Frequency	Percentage (%)
Supervising children's behaviour	25	83
Setting up materials for play	20	67
Helping children find the direction of play	11	37
Facilitating play	9	30
Participating in play	7	23
Providing verbal comments	5	17

Note: $N = (30)$.

Seven teachers (23%) were observed participating in children's play, whereas only five teachers (17%) provided verbal comments.

The teachers' interview responses confirmed what had been observed regarding teachers' roles during children's play.

Zakia: I observe children from afar so that they can solve their problems on their own. If they are not able to solve their problems, then I will intervene. I always remind the children about the rules of play in outdoor areas and give them appropriate instructions to prevent problems or misbehaviour that may occur among children.

Mezon: Before children start playing, I prepare and organize the yard for their play. I make sure that the yard is clean and safe for children. I provide my children with whatever materials are needed to foster play.

Statement 4: The most commonly observed outdoor play areas were equipment (swings, seesaws, slides, bicycles) and sand and water areas. Although these were available in all the kindergarten settings, natural areas were quite rare.

As shown in Table 2, the area most visited and observed by kindergarten teachers was the equipment area (93%), followed by the sand and water area (73%). Almost half the teachers in this sample (47%) visited and observed bicycle areas. Few kindergarten teachers (13%) were found to establish less common outdoor areas such as the balls area, block area and home area, which were the least visited and observed areas (13%, 10% and 3%, respectively).

Most teachers interviewed (33 out of 40) (83%) indicated that they tried to observe children in all areas. The interviews supported the observation findings, with the teachers indicating that they often focus more on the equipment area. They mentioned that most of the problems occur in this area because it is always crowded with children. The teachers also indicated that the sand and water area should be frequently observed because of the limited space available in this area, and because children may sometimes throw water or sand at other children, or mix water with sand. For instance, Ohod stated that:

As children do not wait for their peers to finish their play, they like to play in the same area regardless of the number of children engaged in the same area. If I did not interfere and ask them to try another area, most of my children would spend their outdoor time in the equipment area, for example.

Amira was very keen to talk about this topic:

Table 2. Frequencies and percentages regarding the most visited and observed outdoor play areas by kindergarten teachers.

Outdoor play area	Frequency	Percentage (%)
Equipment	28	93
Sand and Water	22	73
Bicycle	14	47
Balls	4	13
Block	3	10
Home	1	3%

Note: $N = (30)$.

I often stand near the sand and water area, but I try to keep my eyes on all areas. The sand and water area has the smallest space in my outdoor area, and all children want to enter this area at the same time. Imagine how difficult my job will be to keep only a few children in one place, while other children are waiting. (*Sigh...*) Our children never wait!

Seven teachers (23%) mentioned that their outdoor play area is not designed to enable teachers to observe the whole yard at the same time. They said that some playground areas are created behind the kindergarten where children play on one side and their peers on another. For instance, Aisha stated:

The shape of my outdoor play area looks like the letter L. When children are playing in the sand and water area I cannot see them because I need to observe other children who are playing in equipment areas. I have faced many problems because of my absence while children play.

Only one kindergarten teacher indicated that there was a natural environment in the outdoor play area, while 97% stated that there was no garden area, as Mezna explains:

Our outdoor play area is covered with asphalt. There are no opportunities here to play in a natural environment. The reason is because this kindergarten was built initially to be a house, then it was converted into a kindergarten.

Surprisingly, two teachers did not consider a natural environment to be necessary in early childhood settings. For instance, Samiya said:

Natural environments require a large space. We have the basic and most important areas in our kindergartens. I do not see this environment (meaning the natural environment.) as necessary for children, as its disadvantages outweigh its advantages. You know, it is difficult to control children when they are in a natural environment.

Statement 5: Most teachers are satisfied with the safety conditions of the children's outdoor play where they work. Despite this, they feel a need to know more about how to maintain safety in outdoor play environments.

Most teachers interviewed (24 out of 30) (80%) stated that their outdoor play area is safe and referred to the strict regulations specified by the Ministry of Education. They mentioned that the equipment has no sharp corners, and the sand and water areas are clean. They also have soft sand below swings, slides and fall zones.

Jawaher: I feel that the outdoor environment is safe. As you have noticed, it is covered with soft materials to help protect children from injuries. Also, we check the equipment from time to time to make sure that it is well-maintained.

However, more than half of them (57%) indicated that they are not told about the safety conditions required by the MOE and want to be educated on how to keep children's outdoor play areas safe.

Statement 6: Most teachers believed that the most serious difficulties facing children's outdoor play environments are related to facilities and the weather factor. They indicate that the kindergartens where they teach are home-based and thus often suffer from a lack of space, shortage of developmentally appropriate equipment and materials, and a lack of adaptation to hot weather.

Most teachers (23 out of 30) (77%) referred to a number of difficulties they face. In some cases, the kindergarten settings were not purpose built, but were originally designed as domestic housing. According to their responses, the outdoor environments are poorly designed and not equipped with appropriate space and materials. Most kindergarten teachers (19 out of 30) (63%) indicated that the hot weather is the most serious difficulty they face during children's outdoor play. One teacher stated that:

Hissa: Hot weather is the greatest difficulty I face in the children's outdoor environment. Children are easily affected by the heat. Sometimes I let my children stay in the classroom because of the high temperature in the outdoor environment.

Discussion

The findings of this study showed that Omani kindergarten teachers hold positive attitudes towards outdoor play, recognizing its key role in children's development and well-being. This result is similar to the findings of Chakravarthi (2009), Renick (2009) and Davies (1997), who indicated that preschool teachers believed that outdoor play is important to the development of young children, and that their perceptions of outdoor play were consistent with the philosophical and theoretical underpinnings of outdoor play in early childhood education.

A significant finding was that kindergarten teachers do not plan specific and varied activities for outdoor play environments. Free play was most common in outdoor play activity, while structured activities were minimal. This may be because, as the interviewed teachers mentioned, there is an absence of educational supervision in Omani kindergartens as well as a lack of guidance given to teachers within the kindergarten curriculum on how to plan, implement and evaluate children's activities in outdoor play (Omani Kindergarten Curriculum 2002). It is obvious from the teachers' interviews that the indoor activities take the lion's share of teachers' attention. This implies that outdoor play activities are viewed as less important than indoor activities for children's development (Davies 1996). Playtime may be viewed by teachers as a break from learning activities. According to Davies (1996), teachers perceive the outdoor play environment as a setting primarily for children to engage in active, noisy and physical play, and teachers believe that, unlike indoor environments, outdoor play is a time for teachers to take a break from classroom activities.

Additionally, the most common role teachers played during children's outdoor play was supervising and guiding children's behaviour, followed by setting up materials for play. This could be due to the traditional perspective held by some educators that free play, unlike structured play, often has no rules, causes a mess and is noisy. Teachers want to intervene and guide children's behaviour without being involved in children's play. This result is consistent with the work of Chakravarthi (2009) and Renick (2009) who found that preschool teachers considered supervision as their primary responsibility. It is also supported by McClintic and Petty (2015) who found that teachers viewed their main responsibility outdoors as keeping the children safe and providing guidance.

Moreover, providing verbal comments and participating in play were found to be the least common roles practised by the kindergarten teachers. This finding is consistent with the work of Chakravarthi (2009) and Davies (1997) who found that few

teachers considered that they needed to intervene or participate in children's play. This may be due to the fact that teachers have a lack of awareness of their role during children's outdoor play or could be related to their own beliefs about the value of free play.

Training programmes and appropriate supervision in kindergartens could help teachers better understand their role, and instruction and guidelines could be provided on how to be involved and participate effectively in the outdoor play environment.

The findings indicate that the outdoor play areas most observed by teachers were equipment and sand and water areas. This may be because these are busy, noisy and closely spaced areas which are very popular with children, so teachers were always around these areas in order to supervise the children and manage behaviour. Natural areas (e.g. gardens, pets, etc.) were found to be rare in outdoor play environments, despite their importance (Dodge, Colker, and Heroman 2010; Fjortoft 2004; Ouvry 2003). This situation is not restricted only to the Omani context; children today in many early childhood programmes around the world have limited exposure to the natural environment, which could prevent them, for example, from learning about science or fully appreciating the importance of the environment (Kellert 2002). However, in the Omani context, the reasons are different. In the case of Oman, the very hot weather makes it almost impossible to create such environments. Another possible reason for the lack of natural environments could be the fact that many kindergartens were not originally designed for this purpose.

Another important finding was that most kindergarten teachers are satisfied with the safety conditions of the children's outdoor play areas where they work, although they feel a need to know more about how to meet safety criteria in outdoor play environments (Al-Omari, Ihmeideh, and Al-Dababneh 2011). This may be due to the fact that the MOE has strict criteria for establishing outdoor play areas, including safety conditions, but nothing is mentioned about how to implement the safety criteria.

Finally, the most serious difficulties facing children's outdoor play environments as perceived by teachers were the lack of space, the shortage of age-appropriate equipment and materials and the hot weather. This result is consistent with studies related to barriers to using outdoor environments. For instance, Ernst (2014) indicated that lack of time, winter weather conditions and safety concerns are considered to be the main barriers to accessing outdoor learning. Similarly, McClintic and Petty (2015) viewed factors related to lack of space, dangers in the neighbourhood, preferences for more structured activities, parents' work schedules and increased use of technology as factors contributing to less time spent outdoors, while in Kos and Jerman's (2013) work, teachers indicated that cold and adverse weather conditions were the most frequent reason for avoiding outdoor play.

According to Holmes and Procaccino (2009), preschool children's play is noticeably influenced by the materials, equipment and opportunities available to them. This result differs from the findings of (Al-Omari, Ihmeideh, and Al-Dababneh 2011) who found that teachers were satisfied with the playground environment and found it an attractive and effective area.

Limitations of the study

The study is restricted by the nature of the instruments used for data collection: semi-structured interviews and structured observations. No attempt was made to

gather information using other instruments. Additionally, the selection of the sample was limited to only 30 teachers working in one particular province of Oman (around the capital, Muscat). It is possible that data collected from other regions in the country may have yielded different results. Furthermore, this study examined outdoor play from the teachers' perspective. No attempt was made to investigate the perceptions of other people who have a keen interest in outdoor play environments such as kindergarten principals, curriculum designers and university academic staff involved in early childhood teacher education programmes and children.

Conclusion and implications

Based on the study results, it could be concluded that outdoor play environments in Omani kindergartens are not well designed, prepared and equipped, and that teachers need to develop appropriate roles in supporting young children's outdoor play. It is hoped that this research will be seen as a starting point for reviewing the current status of outdoor play environments in the Omani context and for providing valuable insights for decision-makers to extend children's outdoor experiences and improve the quality of outdoor play environments.

Increasing our level of understanding about kindergarten standards could lead to a policy review of the criteria for licensing new kindergartens and to providing the current established kindergartens with some useful guidelines to help them improve their existing outdoor play environments. Such certification standards should specify the time for outdoor play periods and the dimensions of outdoor play spaces, provide criteria relating to the process of designing and equipping outdoor play area, and make recommendations for protecting children from direct exposure to the sun by developing a heat index weather chart similar to the cold index chart that is used in countries with extreme cold temperatures, such as the Scandinavian countries or Canada, where children are nonetheless allowed to play outdoors for a certain length of time.

Based on the results of the study, early years education officials in Oman may be encouraged to set up regulations for providing children with clearly defined natural areas, whether this is within a kindergarten's outdoor play space or beyond (e.g. in farms, public gardens, etc.).

Since the Omani National Kindergarten Curriculum lacks a focus on outdoor play-related activities, it is essential to revisit the curriculum and include proposed activities to be conducted in the outdoor environments. Guidelines on how to plan, implement and evaluate children's outdoor activities need to be included. In-service teachers should be provided with training programmes and workshops to increase their awareness of their role during children's outdoor play and to encourage them to participate in children's play and provide verbal comments. Outdoor play environments should not be viewed as a time for teachers to take a break.

The scope of future research should be expanded to look at outdoor play environments in Omani kindergartens from the perspectives of other stakeholders, such as kindergarten principals, curriculum designers, parents and children. Further research is needed to investigate the impact of outdoor play activities and experiences on different aspects of children's development. This kind of research is important to increase the awareness of stakeholders, educators and curriculum designers as well as those who may not believe in the importance of outdoor environments for scaffolding children's development and learning. Furthermore, some barriers for

children's outdoor play in Omani Kindergartens, such as the weather factor and the nature of the kindergarten designs, provide interesting research gaps for further studies. As teachers' views and roles on outdoor play may depend on the educational context and the local geography and weather where they live, what is needed now are in-depth cultural comparative studies to look deeply at the similarities and/or differences in teachers' views and roles.

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