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#### RESEARCH ARTICLE

# The importance of preschool employees' individual and shared opinions for 4–6-year-olds' physical activity in preschool – in light of individual and collective identity

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#### **ABSTRACT**

Several studies emphasise the preschools' impact on children's physical activity, both socially and organisationally. Furthermore, higher levels of physical activity and cardiorespiratory function are associated with better health. Preschool is an important arena for children's physical activity, as many children spend much time in preschool every day. The present study aims to examine how the preschool employees' individual opinions and shared opinions can be of importance for practices related to children's physical activity in preschool. The findings and discussion in this article are based on focus group interviews in three preschools. The data are analysed within an individual and collective identity theory framework. The analysis reveals a variety of opinions, both individual and shared, in each preschool regarding the children's physical activity, with a stronger connection between the individual and shared opinions in two of the three preschools in the study. This underlines the importance of working for a culture with adaptions to shared values to prevent conflicting interests among employees' regarding the eagerness to facilitate children's physical activity.

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#### **Introduction**

Children's friendships are not just based on relationships, but they find friendship through activities. Preschool children play bodily, and the intensity of play and frequency increases significantly as the children get older, reaching their highest point around 4–5 years of age (Osnes, Skaug, and Kaarby 2015). The physical play of the oldest children in preschool is characterised by using large muscle groups with basic, natural gross motor movements such as crawling, walking, running, climbingand balancing (Osnes, Skaug, and Kaarby 2015). Among the oldest children in preschool, this physical play will often become more chaotic and noisy, e.g. rough and tumble play is an essential dimension of social play among the oldest children in preschool (Osnes, Skaug, and Kaarby 2015; Kibsgaard and Sandseter 2018). Basic movement play, and rough and tumble play are physical activities where the children are likely to be breathless, hot and sweaty. In this game, the child needs both motor skills and endurance, and will thus be an important contribution to children complying with the World Health Organization (2019) recommendation of 60 minutes of physical activity at moderate to high intensity daily. Ennis (2011) has pointed out that bodily-motor capital is crucial for realising the goal of lifelong joy in physical activity. Furthermore, motor skills are of importance for children in terms of having more physical activity at moderate to high intensity. Motor skills, perceived motor competence and body image are essential in the development of attitudes towards physical activity. In addition, children's own culture is based on physical activity and an inherent need for movement, which makes it natural to make preschool an arena for physical activity, also in work with other disciplines.

Despite the fact that many children meet the World Health Organization's (2019) recommendation of 60 minutes of physical activity at moderate to high intensity daily, several studies both nationally and internationally show that children of preschool age have too low physical activity level (Berglind et al. 2017; Brasholt et al. 2013; Gunter et al. 2012; Bornstein et al. 2011; Pagels, Boldemann, and Raustorp 2011; Giske, Tjensvoll, and Dyrstad 2010; Reilly 2010; Brown et al. 2009a; Tucker 2008). Higher levels of physical activity and cardiorespiratory function are associated with better health (Myers et al. 2015). Furthermore, there is evidence for an association between cardiorespiratory function, physical activity and cardiovascular disease risk also in children (Vejalainen et al. 2019; Carson et al. 2017; Jimenez-Pavon et al. 2013). This shows the importance of physical activity for children's health already in preschool age.

Mikkelsen (2011) found that both socially and organisationally, preschool employees' attitudes are an important factor for children's physical activity. This is supported by several studies that emphasise the preschools' impact on children's physical activity (Chen et al. 2020; Bugge and Froberg 2015; Hesketh, Griffin, and van Sluijs 2015; Dønnestad, Kleppe, and Strandmyr 2015; Bjørgen and Svendsen 2015; Olesen et al. 2013; Nicaise, Kahan, and Sallis 2011). Individual and shared opinions in the community of practice regarding preschool children's physical activity are elucidated based on the theory of individual and collective identities.

## Theory framework

## Identity creation and performance of professional practice

Individual norms and attitudes among employees, together with collective intentions and values, will be important for promoting physical activity among children. Employees in preschools develop individual professional identities based on knowledge, experiences and values. Furthermore, a professional identity concerns the employees' own conscious perception of themselves as professionals. Professional identity refers to the personal identity formation that has to do with the exercise of the professional role and refers to changes over time (Heggen 2008). This is in line with Wittek (2018), who states that professional identity development refers to identity as something dynamic that is expressed in varied ways in different contexts and that the professional identity is developed through cognitive construction made possible by social experiences. Professional identity is based on self-identity, and is defined and redefined in the person's experience with different practices (Heggen 2008).

The preschool teacher possesses professional competence acquired through professional education, and can thus meet the link between the requirements of the profession and his or her own personality in a different way than a preschool employee without a preschool teacher education. A profession performs services based on theoretical knowledge acquired through a specialised education (Molander and Terum 2008). For an employee without preschool teacher education, professional competence will constitute a form of professionalism that is regarded as a morally binding attitude (Angelo 2016).

As Binder (2018) argues, personal identity is about what we let become important to us. We combine elements from collective identities, relational identities and roles, and link them to events in our own lives, together with our feelings, needs and imagination. In this way, identity can be portrayed as construction, choice and project (Heggen 2008). As Angelo (2016) claims, professional understanding is about what a preschool teacher, can and should do. This is about knowledge and identity as intertwined entities. Practice in preschool is about the use of experience, making experiences, practice and training, 'ways of doing things' or habits and routines. A good practitioner masters the use of the relationship between scientific knowledge and general rules

on the one hand, and practical knowledge and situation-related judgement on the other (Molander and Terum 2008). The preschool teacher expresses practical knowledge in actions, assessments and judgement that is of importance for employees without professional education. In this way, they can enter into a collaborative community of practice with employees who have preschool teacher education. For employees without preschool teacher education, there may be an 'anticipatory socialization' in which the employee receives first-hand learning with the acquisition of values that prepare for adaptation to a possible future role as a preschool teacher (Heggen 2008). This involves the acquisition of knowledge through professional participation. Professionals are referred to, by Molander and Terum (2008), as people who master something in a good, correct or exemplary way. The professional must use themselves (their knowledge, experiences, values and respect for others) in relation to the others in order to find good solutions (Heggen 2008). Development and learning mean becoming better able to participate in community practice, use the tools and acquire an identity as a member of the community (Woolfolk 2007). This is of significant importance as Øvreås et al. (2020) found that the inclusion of all employees was an important factor in the successful implementation of interventions aimed at increasing the children's physical activity level.

Preschool employees must be aware of their professional identity because they must actively interact with children in development and learning processes, and thus be role models that will positively influence children's experiences with physical activity. The awareness of mental models, in this case, one's own thinking about and view of physical activity, deals with the development of the skills of reflection and interaction (Senge 2006). Reflection deals with how one's own mental models influence the interaction with children, and interaction describes how interaction with children takes place. Madland (2013) claims that preschool employees' act based on their own preferences in spontaneous reactions rather than following other people's expectations about what they should do. Opposite, Mikkelsen (2011) shows that a preschool consisting of employees with strong positive attitudes towards physical activity and who focus on promoting physical activity creates more activity among the children than a preschool without a similar focus, and with employees who do not have similarly strong positive attitudes towards physical activity.

#### Collective identity in the community of practice

In this context, the professional community of practice deals with how a pattern of basic assumptions and values are taught to new employees and established between employees. The basic assumptions are the correct way of perceiving, thinking and feeling in terms of how practical knowledge and action competence in the work with physical activity are expressed (Adapted after Schein 1987, 7). Moreover, common understanding in the work with physical activity in preschool can be developed through identity-creating participation in a community of practice. Schein (1987) defines common understanding means that the members of the organisation experience a particular emotion, experience or activity as common, where a communication system verbally or with the use of signals has the same meaning for all members. Furthermore, a culture of physical activity is established in the community of practice, and Schein (1987) argues culture is a result of group learning. Culture is learned, and taught to others, through the group repeatedly solving challenges, e.g. how to develop a practice where children are physically active at moderate to high intensity for 60 minutes daily, and where good solutions that work become part of the culture. Furthermore, when people with different interpersonal styles and cognitive and emotional abilities interact, communities of meaning arise over time (Schein 1987). Culture aims to bind together into a community with collective ways of thinking and acting (Gotvassli and Vannebo 2016). Development of communities of practice with common values and norms and collective ways of thinking and acting, are the basis for promoting good quality of work with physical activity. Internally, strong cultures are characterised by the fact that the employees have a common language, terminology and a common perception of what are important goals for the work. In this context, this is about what creates physical activity for children, how to implement a practice that gives children physical activity, and why

physical activity is important for children. The cultural perspective focuses on informal management where the culture influences the rules of interaction between the employees and what is tolerated by behaviour, e.g. preschools may have a rule that emphasises physically active participating employees in physical play outdoors. The culture must be functional and adapt to changes in the society, e.g. in connection with the introduction of the new framework plan of 2017 the preschool must adapt from children largely controlling their own play to intentionally working on the preschool being an arena for daily physical activity.

According to Schein (1987), assumptions underlying the view of physical activity, i.e. what value physical activity should have, can be invisible, taken for granted or be preconscious. Pre-awareness can lead to employees' performing actions without the actions being conscious of the consequences, by the fact that you, with only body language, without saying it in words, can show that you do not want to participate in physical play with the children. The consequence of this may be that the children's physical activity level is not stimulated sufficiently. Furthermore, if the individual employees' actions are not in line with the common practice in preschool, assumptions can be made aware as a result of employees looking differently at how the preschool should work with physical activity. When assumptions are made and influenced, the level of consciousness can be increased. The consequence of this is probably an impact on the employees' values and the preschools' collective values, e.g. a collective intention with an increased focus on physical activity. This is in line with Moser (2018), who argues that educational professionalism requires preschool employees to raise implied processes to a level where it is possible to reflect on them, and possibly change the silent practice when it is not appropriate for the pedagogical intentions. A collective intention for more physical activity may be feasible if employees commit to this intention. The development of the correspondence between the employees' individual identity and the collective identity in the community of practice will constitute an important prerequisite for the work on physical activity in preschools.

The aim of this study is to examine whether there is a connection between the preschool employees' individual opinions and shared opinions in the work with preschool children's physical activity in preschool. The study has the following research question:

How are preschool employees at three preschools expressing individual and shared opinions in the work with children's physical activity in preschool?

#### Method

Focus group interviews (Ennis and Chen 2012) have been carried out with the staff in three preschools. Furthermore, the focus group interview has been used to help the research participants remember different incidents, and elaborate descriptions of incidents or experiences the group members have in common (Postholm 2010). The aim of the interviews was to examine the preschool staff's individual opinions regarding the work with children's physical activity to determine whether it is the expression for an individual or in line with collective identity.

## The focus group participants

The 13 research participants from the three preschools were both preschool teachers and assistants. The interviews were carried out among employees after the preschool head teachers' approval for the preschools' participation in the study. The head teacher is given everyday responsibility for pedagogical practices, staff and administration. A condition for participation was that the employees were full-time in preschool. All preschools have a rural location in Troendelag in central Norway. According to Epland and Tuv (2019), there are few social differences in Norway. Furthermore, the Norwegian Framework Plan for Kindergartens (Norwegian Directorate for Education and Training 2017) establishes that preschools are to be an arena for daily physical activity. Preschool 1M is an ordinary preschool without a special profile for the educational work, while preschool 2G and

3Mo focus on outdoor activities. In Norway, outdoor activities are the most common profile for preschools (Norwegian Directorate for Education 2022). Descriptive data on preschool staff and children in the three preschools are presented in Table 1.

Preschool 1M and 2G were relatively large preschools with 27 and 30 children, respectively. In Norway, 18 children are the most common group size for children aged 3-5 years in preschool (Norwegian Directorate for Education 2022).

#### **Context**

The focus interviews were conducted at the preschools in a room with only the moderator and research participants. The interviews were conducted after the preschool's closing time. All the participants and me as a researcher sat around a table so that we all could see each other. In this way, it was easier for me as a moderator to manage the conversation and create a setting where the participants feel calm and safe. We started with a pleasant and informal chat about the preschool in general before we started the conversation about the topics in the interview guide. Furthermore, the focus group interview was structured as an open semiformal interview guide with the following three overarching topics (1) 'The preschool staff' with sub-questions about which factors they believe create physical activity, their role in children's physical activity, the degree to which they encourage, initiate and participate in children's physical play, (2) 'Organization of physical activity' with subquestions about the degree to which they plan and organise the physical activity, which type of physical activities they plan, duration of activities, whether the activities take place outside or inside and (3) 'Physical environment' with sub-questions about the size of the area outside and inside, in which areas the children prefer to play, which other areas outside the preschool they use for physical play, and rules for physical active play. The participants did not receive the interview guide before the interview. The interviews, with a duration of respectively 39 minutes for preschool 1M, 45 minutes for preschool 2G and 31 minutes for preschool 3Mo, were recorded. Data from the interviews were transcribed using the NVIVO 11 software. The participants talked freely and also much with each other. The moderator took a secluded role. All participants were encouraged to speak. After the analysis, the interview transcripts were submitted to the research participants for approval to ensure reliability. Thus, we avoided the problem of participants not recognising their own experiences (Kara 2015). The preschool staff were fully informed about the procedures before consenting to the study. The preschool staff received written and oral information about the procedures and ethical standards prior to signing the written consent form. They were also informed that the study was voluntary and had been approved by the Norwegian Social Science Data Services (NSD).

#### Analyses of data

The analyses were based on transcribed interviews and focused on meanings, as described by Johannessen, Tufte, and Christoffersen (2010). The content analysis reduced the data material to theoretical labels based on qualities and dimensions in the material, for example, qualities and dimensions such as they mostly activate themselves or personally, I can never teach children to be children (Corbin and Strauss 2015). Such an approach is preferred when researchers intend to describe and understand common interpretations of a certain phenomenon by preschool staff (Postholm 2010). With

**Table 1.** Descriptive data on preschool staff and children in the three preschools.

Preschool	Employees (N)	Children (N)
Nr. 1M	5	27
Nr. 2G	5	30
Nr. 3Mo	3	10



such a strategy, opinions and statements in relation to the link between individual identity and collective identity are identified as themes. The data material has been processed in two steps in accordance with Kvale and Brinkmann (2015). The discussions were analysed to find statements that could represent both an individual and collective identity. Each participant was encouraged to speak. Some participants talked a lot, which meant that the moderator had to ask direct questions to other participants to make sure all their opinions were expressed. The data material was processed and analysed in two steps, which are described in the next sections.

#### Step 1: reducing the data and meaning condensation

Already during transcription, reflections about individual identity and collective identity were noted. Through careful reading of the transcribed interviews, a first impression of the content of the data was formed. Thoughts about the social and emotional aspects of the interview situation were noted (Kvale and Brinkmann 2015). Preliminary reflections and ideas about the themes that were discussed in the focus groups were made, based on the readings of excerpts from the interviews. The first step reduced the data and placed statements and citations in meaning units, according to the interview guide. The immediate meaning was compressed into shorter sentences. Statements in relation to the three overarching topics in the interview guide were organised under individual and collective identities.

### Step 2: theoretical labels and interpretation

In the second step, the data in the meaning units were related to the theoretical labels. For example, a theoretical label about individual identity emerged from these excerpts from the data material: They mostly activate themselves. I do not think it is so profitable form them that we are so close all the time. Personally, I do not think I will ever be able to teach a child to be a child. These statements deal with individual opinions and are for that reason related to individual identity, and they were given the same theoretical label. Moreover, on the question regarding initiating physical activity statements like We do that all the time. If children do not get started with something or need help ... then we will get started. These statements express a form of agreement among the preschool staff and can be associated with collective identity.

Based on excerpts from the three preschools, the material was analysed and interpreted within the themes 'individual opinions' and 'collective opinions', which will be outlined below.

## **Findings**

This study shows that all three preschools have visible opinions, both individual and collective opinions at the same time in their own preschool. This is relatively clear in preschool 1M. In these preschool, an employee expresses a personal opinion and expressed: *Personally, I think role-playing is more important for social intelligence, because we seem to be lacking a bit of that. I feel that preschool children are mostly active.* On the other hand, an employee in the same preschool answered the following the question about the degree of initiative in physical activity: *Yes, we do that all the time.* In preschool 1M one employee stated that *personally, I can never teach children to be children.* She stated *I do not think it is profitable for us to be so close all the time.* At the same time, they argue that they have discussions at personal meetings, and argue that it is important to encourage children to participate in physically active play. However, how preschool employees relate to physical activity depends on personal interests. Furthermore, they stated that they initiate physical activity if children do not get started, or if children need help. They said that they participate in children's play if the children ask them to enjoy, but *itis just a little while. Does not have the capasity to stay long in the play.* Another employee said that it is rarely they organise physical activity. In addition, the preschool children play in the sports hall once in a while, but *there is no point in* 

being there for a long time. All toys and equipment are gone after 3pm Then they run more, more 'catch and run'. Furthermore, indoor running was not allowed in the preschool. It is a common rule for everyone.

In preschool 2G it is also visible that some opinions are personal and others collective. One of the employees states that she will admit that when children enjoy themselves in play, and have a good time, lam not eager to break up the play for them to run. This is supported by another employee who agree and said I agree with her. If they sit and enjoy themselves in role play or interaction in play, I think it is more important than that they should run. Furthermore, one of the employees claimed that children benefit from being warm and sweaty. Moreover, the same employee said that she is not good enough to organise physical activity and needs to focus more on facilitating physical play. On the other hand, the group of employees highlighted that they are very active. They said: They [children] know that we mostly try to be with them. It is almost as they expect us to join them when they come to ask. It is almost adults who initiate physical activity. One of the employees emphasised I have to be a role model. They also emphasised that they facilitate the environment and go on trips. Furthermore, they claimed that their actions are reflected in the children's actions. We are used to the active lifestyle. One of the employees argued that if the environment among the employees had been calm, then I can imagine that the activity among the children also would have been calmer. The children like the adults to participate in physically active play. Furthermore, the preschool employees claim that the adults make the children physically active. However, they also emphasises that they as individuals have different strengths. One of the employees is good at participating in children's physical activity, while another employee is creative with making things in the forest with the children.

In the same way, as for preschool 1M og 2G, preschool 3Mo also have statements and opinions related to individual and collective identity. One statement of one employee is an expression of individual identity. She said: It is allowed to run inside sometimes. Moreover, the employee said: Yes, because I remember that from I was little. It was allowed at grandma's. I thougt that was funny. Furthermore, the employees agree that it is up to the individual employee to decide the length of trips. Trips varied from approximately 0.3-5 kilometres, which reflected the employees' individual wishes and capacity. The length of the trips also varied depending on whether there is a road or in nature. Regarding physical activity one of the employees states that they want to participate in children's physical play. Otherwise, it will be boring. Yes, we will participate. Furthermore the group of employees have realised that they are good at outdoor activities. They also read books, make letters out of sticks, make autumn pictures of leaves, and use books to learn the names of things in nature. It is important to offer the children fresh air before sitting down to learn theoretical knowledge. They also highlight the importance of the children's participation in decision-making and associate this with children's joy in physical activity. When asked about organisation the employees' answer the following: It happens impulsively, but usually happens several times during a day. The employees' agreed with the main focus of the preschool activities. They state: We have selected what we like to do, cow barns and outdoor activities. Furthermore, they emphasise that they spend most of the day outdoors.

#### **Discussion**

It is challenging to decide whether a statement is an expression of a personal opinion related to a specific situation, or whether it is an expression of individual identity. On the other hand, it is to a greater extent possible to argue whether the agreement in the group of employees is an expression of collective identity. Some of the statements from the interviews express awareness as a basis for collective actions. In the following, I will discuss the findings in light of the theoretical framework related to individual and collective identity in a community of practice.

In preschool 1M there is a wide range in the employees' reflections regarding facilitating children's physical activity. One of the employees think children's role-play is more important than focus on physical activity, while antoher employee states that she believes they initiate and gets started physical activity among the children all the time. At the same time, they argue that they have discussions at personal meetings, and argue that it is important to encourage children to participate in physically active play. This indicates a distance between one of the employees' opinions and the group of employees' collective perception of how to get the children physically active. Practical experience, or what Grimen (2008) calls practical knowledge, will often form the basis for the choices one makes. In this case, the preschool would have benefited from an agreement on what should be the most central values to focus on in preschool. This will, to a greater extent, ensure that all employees contribute to children's physical activity. Furthermore, there will be fewer conflicting interests among employees regarding the eager to facilitate children's physical activity. According to Alvestad et al. (2019) high-quality preschools are characterised by high competence, professional enthusiasm and common goals and direction for educational work. Qualifying the discussions about the profession is not just about expressing professional understandings, but also about challenging self-understandings in the field. This can help strengthen individual identity (Angelo 2016). Preschool employees must be aware of their professional identity because they must actively interact with children in development and learning processes, and thus be role models who will positively influence children's experience with physical activity. Furthermore, Fossdal et al. (2018) show a significant association between preschool staff's average activity levels and children's corresponding activity levels during preschool hours. The awareness of mental models, in this case, the preschool employees' view of, and opinions about, physical activity is related to the development of the skills of reflection and interaction (Senge 2006). Rather than undermining differences, the group of employees can assess the differences as enriching (Angelo 2016). Different ways of explaining own expertise and work tasks can be thematised in collective reflections that contribute to a nuanced and precise reflection framework for professional development in the community of practice. This can be expressed through the fact that a group of preschool employees can agree on a common symbol, but identify with it in different ways of acting, and in practice perform their professional roles in very different ways (Heggen 2008). This means that the goal is not to perform the professional role identically, but to utilise the employees' individual strengths on the way to the common goal of physical activity as a central value in the educational work. This can strengthen collective identity and develop a culture with a focus on physical activity. The educational leader must make professionalism in the preschool available to all employees by using professional language and asking questions in everyday situations. Academics provide a common frame of reference and a common language for preschool employees (Børhaug et al. 2018). Practical knowledge and academic knowledge are synthesised in complex practice situations (Børhaug et al. 2018).

In preschool 2G there are indications of a culture characterised by collective thinking and probably a stronger collective identity than in preschool 1M. Despite individual opinions as indications of individual identity in this preschool as well, the preschool employees highlight their active lifestyle in preschool. In contrast to preschool M1, there are not only discussions regarding children's physical activity at meetings but there are practical actions with physical activity. In this context, the professional community of practice reflects a pattern of basic assumptions and values taught to new employees and established between employees. This indicates a group learning that contributes to the development of a community of practice where individual professional identities and collective identity gain a greater degree of compliance. The employees state that if the environment among the employees had been calm, the activity among the children also would have been calmer. Several studies have argued that positive encouragement and involvement from preschool employees were associated with a higher level of physical activity among the children (Fossdal et al. 2018; Bjørgen and Svendsen 2015; Goldfield et al. 2012; Gubbels et al. 2011; Brown, Pfeiffer et al. 2009, Brown, Googe et al. 2009). An enthusiastic adult who initiates and is passionate about the activities is important for stimulating children's inner motivation. The employees' availability, way of being and physical position matter (Christensen 2012). Kippe, Fossdal, and Lagestad (2021) also highlight the importance of preschool employees as major contributors to the physical activity of preschool children. According to Heggen (2008), professional identity is based on self-identity and is defined and redefined in a person's participation in various practices. A strong collective identity with a focus on physical activity as a central value is of importance for employees to develop their individual professional identity. Furthermore, participation in a community of practice leads to an «anticipatory socialization» where the employees experience first-hand learning with the absorption of values that prepares for adaption to a culture characterised by the fact that the employees have a common language, terminology and a common perception of what are central values regarding the practice related to the work with children's physical activity. Preschools that consist of employees with strong positive attitudes towards physical activity and who focus on promoting physical activity create more activity among the children than preschools without a similar focus and with employees who do not have similarly strong positive attitudes towards physical activity (Mikkelsen 2011). Pedagogical professionalism requires that employees raise implicit processes to a level where it is possible to reflect on them, and possibly change the silent practice which is not in line with the pedagogical intentions. In preschool 2G the employees highlight the importance to be physically active, while, it is a goal that the children learn to initiate activity themselves. This is supported by the statements where the employees express that they are not eager to break up the play for them to run. A common value in preschool 2G is the focus on physical activity, but they also emphasises that they as individuals have different strengths. One of the employees is good at participating in children's physical activity, while another employee is creative with making things in the forest with the children. This is in line with Heggen (2008) who emphasised the importance of the opportunity to perform their professional role in different ways.

Preschool 3Mo has a great focus on outdoor activities. They are outdoors from 9.30am to 15pm in line with their interests in outdoor activities. Even if they have common interests in outdoor activities, there are possibilities for individual adaptions for the employees regarding the length of the trips. This is expressed through the freedom each employee has to adapt the length of the trips in line with the employees' individual wishes and capacity. The findings indicate a connection between the opinion of the individual employee and the group of employees' collective perception of physical activity as an important value in preschool. The employees agree on the importance of the outdoor activities, even if they practise differently. Binder (2018) claims that personal identity is about what we choose to be important to us. One of the employees states that running inside is allowed sometimes because she remembers that was allowed at grandma's. This indicates that she wants the children to experience running indoors because she remembers this activity as funny play. This is a personal opinion based on personal experience which is in accordance with the group of employees focus on children's physical activity. We combine elements from collective identities, relational identities and roles, and link them to events in our own lives, together with our feelings, needs and imagination. In this way, identity can be presented as a construction, choice and project (Heggen 2008). Human self-production is always, and necessarily, a result of social processes (Berger and Luckmann 1967). Physical activity is created through individuals in a community of practice mutually influencing each other and creating a community of practice with physical activity as a central value and high importance. The collective identity means that a collective of employees recognises themselves in practice and where recognition creates a basis for collective action (Heggen 2008). Culture aims to bind together into a community with collective ways of thinking and acting (Gotvassli and Vannebo 2016).

### **Conclusion**

This study shows a variety of opinions, both individual and collective, in each preschool regarding the children's physical activity. Preschool 2G and 3Mo have a stronger connection between individual and collective opinions than preschool M1. During a day at preschool, children meet both individual employees who perform their professional role based on their personal opinions regarding physical activity, and a group of employees who represent collective opinions expressed through identities and culture. According to the theoretical framework in this study, the connections between the individual and collective opinions indicate a relationship between the individual identity and the collective identity that can have an impact on the quality of the work with children's physical activity. The community in the preschool is characterised by a culture. The culture becomes a control mechanism through plans and rules to manage and regulate children's physical activity in preschool. This constitutes the prerequisite for the work with children's physical activity. This underlines the importance of working for a culture with adaptions to shared values. Through reflection and cognitive work, the group of preschool employees can develop a community where physical activity is a central value.

## **Disclosure statement**

No potential conflict of interest was reported by the author(s).

#### References

- Alvestad, M., L. Gjems, E. Myrvang, J. B. Storli, I. B. E. Tungland, K. L. Velde, and E. Bjørnestad. 2019. *Kvalitet i barnehagen. Rapport fra dybdestudien i det longitudinelle forskningsprosjektet Gode barnehager for barn i Norge* [Quality in Preschool. Report from the In-depth Study in the Longitudinal Research Project "Good Kindergartens for Children in Norway"]. Report nr. 85.
- Angelo, E. 2016. "Lærerutdannerens profesjonsforståelse. En innfallsvinkel til å profesjonalisere lærerutdannerfeltet." *Acta Didactica Norge* 10 (2): 108–131. doi:10.5617/adno.2354.
- Berger, P. L., and T. Luckmann. 1967. *The Social Construction of Reality. A Treatise in the Sosiologi and Knowledge*. London: Penguin Books.
- Berglind, D., L. Hansson, P. Tynelius, and F. Rasmussen. 2017. "Levels and Patterns of Objectively Measured Physical Activity and Sedentary Time in 4-Year-Old Swedish Children." *Journal of Physical Activity & Health* 14 (2): 117–122. doi:10.1123/jpah.2016-0250.
- Binder, P. E. 2018. *Hvem er jeg? Om å finne og skape identitet*. [Who Am I? About Finding and Creating Identity]. Bergen: Fagbokforlaget.
- Bjørgen, K., and B. Svendsen. 2015. "Kindergarten Practitioners' Experience of Promoting Children's Involvement in and Enjoyment of Physically Active Play: Does the Contagion of Physical Energy Affect Physically Active Play?" *Contemporary Issues in Early Childhood* 16 (3): 257–271. doi:10.1177/1463949115600025.
- Børhaug, K., H. B. Brennås, H. Fimreite, A. Havnes, Ø. Hornslien K. H. Moen, T. Moser, A. Myrstad, G. S. Steinnes, and M. Bøe. 2018. *Barnehagelærerrollen i et profesjonsperspektiv et kunnskapsgrunnlag* [The Preschool Teacher's Role in a Professional Perspective a Knowledge Base]. Oslo: Kunnskapsdepartementet.
- Bornstein, D. B., M. W. Beets, W. Byun, and K. McIver. 2011. "Accelerometer-Derived Physical Activity Levels of Preschoolers: A Meta-Analysis." *Journal of Science and Medicine in Sport* 14 (6): 504–511. doi:10.1016/j.jsams.2011. 05.007.
- Brasholt, M., B. Chawes, E. Kreiner-Møller, S. Vahlkvist, M. Sinding, and H. Bisgaard. 2013. "Objective Assessment of Levels and Patterns of Physical Activity in Preschool Children." *Pediatric Research* 74 (3): 333–338. doi:10.1038/pr.2013.99.
- Brown, W. H., H. S. Googe, K. L. McIver, and J. M. Rathel. 2009b. "Effects of Teacherencouraged Physical Activity on Preschool Playgrounds." *Journal of Early Intervention* 31 (2): 126–145. doi:10.1177/1053815109331858.
- Brown, W. H., K. A. Pfeiffer, K. L. McIver, M. Dowda, C. L. Addy, and R,R Pate. 2009a. "Social and Environmental Factors Associated with Preschoolers' Nonsedentary Physical Activity." *Child Development* 80 (1): 45–58. doi:10.1111/j. 14678624.2008.01245.x.
- Bugge, A., and K. Froberg. 2015. Forsøg med Læring i Bevægelse. Rapport. Institut for Idræt og Biomekanik, Syddansk Universitet. København: Undervisningsministeriet. ISBN: 978-87-93192-28-7-87.
- Carson, V., E. Y. Lee, L. Hewitt, C. Jennings, S. Hunter, N. Kuzik, J. A. Stearns, et al. 2017. "Systematic Review of the Relationships Between Physical Activity and Health Indicators in the Early Years (0–4 Years)." *BMC Public Health* 17 (5): 854. doi:10.1186/s12889-017-4860-0.
- Chen, C., V. H. Ahlqvist, P. Henriksson, C. Magnusson, and D. Berglind. 2020. "Preschool Environment and Preschool Teacher's Physical Activity and Their Association with Children's Activity Levels at Preschool." *Plos One* 15 (10): e0239838. doi:10.1371/journal.pone.0239838.
- Christensen, T. 2012. Pædagogisk idræt i vuggestue og børnehave. Fredrikshavn: Dafolo A/S.
- Corbin, J., and A. Strauss. 2015. *Basics of Qualitative Research. Techniques and Prosedures for Developing Grounded Theory.*Los Angeles: Sage.
- Dønnestad, J., T. H. Kleppe, and A. Strandmyr. 2015. *Oppfølging av folkehelseprosjekt Barnehager* [Follow-up of Public Health Project in Kindergartens]. Oslo: Grorud distrikt.



- Ennis, C. D. 2011. "Physical Education Curriculum Priorities. Evidence for Education and Skillfulness." *Quest* 63 (1): 5–18. doi:10.1080/00336297.2011.10483659.
- Ennis, C., and S. Chen. 2012. "Interviews and Focus Groups." In *Research Methods in Physical Education and Sport*, edited by K. Armour and MacDonald, 217–237. New York: Routledge.
- Epland, J., and N. Tuv. 2019. *Slik måler SSB ulik* [This is How Norwegian Statistics Measures Inequality]. Oslo: Norwegian Statistics.
- Fossdal, T. S., K. Kippe, B. Handegård, and P. Lagestad. 2018. "Oh oobe doo, I wanna be like you' Associations Between Physical Activity of Preschool Staff and Preschool Children." *Plos One* 13 (11): e0208001. doi:10.1371/journal.pone. 0208001.
- Giske, R., M. Tjensvoll, and S. M. Dyrstad. 2010. "Fysisk aktivitet i barnehagen. Et casestudium av daglig fysisk aktivitet i en avdeling med femåringer [Physical Activity in Kindergarten. A Case Study of Daily Physical Activity in a Departement of Five Year Olds]." *Tidsskrift for Nordisk Barnehageforskning* 3 (2): 53–62. doi:10.7577/nbf.257.
- Goldfield, G. S., A. Harvey, K. Grattan, and K. B. Adamo. 2012. "Physical Activity Promotion in the Preschool Years: A Critical Period to Intervene." *International Journal of Environmental Research and Public Health* 9 (4): 1326–1342. doi:10.3390/ijerph9041326.
- Gotvassli, KÅ, and B. I. Vannebo. 2016. *Strategisk ledelse i barnehagen* [Strategic Management in the Kindergarten]. Oslo: Cappelen Damm AS.
- Grimen, H. 2008. "Profesjon og kunnskap [Profession and Knowledge]." In *Profesjonsstudier*, edited by A. Molander and L. I. Terum, 71–86. Oslo: Universitetsforlaget.
- Gubbels, J. S., S. P. Kremers, D. H. Van Kann, A. Stafleu, M. J. Candel, P. C. Dagnelie, C. Thijs, and N. K. de Vries. 2011. "Interaction Between Physical Environment, Social Environment, and Child Characteristics in Determining Physical Activity at Child Care." *Health Psychology* 30 (1): 84–90. doi:10.1037/a0021586.
- Gunter, K. B., K. R. Rice, D. S. Ward, and S. G. Trost. 2012. "Factors Associated with Physical Activity in Children Attending Family Child Care Homes." *Preventive Medicine* 54 (2): 131–133. doi:10.1016/j.ypmed.2011.12.002.
- Heggen, K. 2008. "Profesjon og identitet. [Profession and Identity]." In *Profesjonsstudier*, edited by A. Molander and L. I. Terum, 321–332. Oslo: Universitetsforlaget.
- Hesketh, K. R., S. J. Griffin, and E. M. F. van Sluijs. 2015. "UK Preschool-Aged Children's Physical Activity Levels in Childcare and at Home: A Cross-Sectional Explantion." *International Journal of Behavioral Nutrition and Physical Activity* 12 (1): 123. doi:10.1186/s12966-015-0286-1.
- Jimenez-Pavon, D., K. Konstabel, P. Bergman, W. Ahrens, H. Pohlabeln, C. Hadjigeorgiou, A. Siani, et al. 2013. "Physical Activity and Clustered Cardiovascular Disease Risk Factors in Young Children: A Cross-Sectional Study." *BMC Medicine* 11 (172). doi:10.1186/1741-7015-11-172.
- Johannessen, A., P. A. Tufte, and L. Christoffersen. 2010. *Introduksjon til samfunnsvitenskapelig metode* [Introduction to Social-Science Methodology]. Oslo: Abstrakt Forlag.
- Kara, H. 2015. Creative Research Methods in the Social Sciences. A Practical Guide. Bristol: Policy Press.
- Kibsgaard, S., and E. B. Sandseter. 2018. "Bevegelseslek i barnekulturen, tradisjoner og kulturelt mangfold [Physical Active Play in Children's Culture, Traditions and Cultural Diversity]." In *Barnas barnehage 3. Kroppslighet i barnehagen. Pedagogisk arbeid med kropp, bevegelse og helse*, edited by E. B. Sandseter, T. L. Hagen, and T. Moser, 67–82. Oslo: Gyldendal Norsk Forlag AS.
- Kippe, K., T. S. Fossdal, and P. Lagestad. 2021. "An Exploration of Child-Staff Interactions That Promote Physical Activity in Preschool." *Frontiers in Public Health* 9: 607012. doi:10.3389/fpubh.2021.607012.
- Kvale, S., and S. Brinkmann. 2015. *Det kvalitative forskningsintervju* [The Qualitative Research Interview]. Oslo: Gyldendal Akademisk.
- Madland, A. 2013. Betydningen av hele meg: om handlinger, holdninger og verdier hos de voksne i barnehagen [The Meaning of the Whole Me. About the Actions, Attitudes and Values of the Adults in Kindergarten]. Oslo: Gyldendal akademisk.
- Mikkelsen, B. E. 2011. "Associations Between Pedagogues Attitudes, Praxis and Policy in Relation to Physical Activity of Children in Kindergarten–Results from a Cross Sectional Study of Health Behaviour Amongst Danish pre-School Children." *International Journal of Pediatric Obesity* 6 (S2): 12–15. doi:10.3109/17477166.2011.613655.
- Molander, A., and L. I. Terum. 2008. "Profesjonsstudier en introduksjon [Professional Studies An Introduction]." In *Profesjonsstudier*, edited by L. Molander and L. Terum, 13–29. Oslo: Universitetsforlaget 2008.
- Moser, T. 2018. "Den sosiale kroppen [The Social Body]." In *Barnas barnehage 3. Kroppslighet i barnehagen. Pedagogisk arbeid med kropp, bevegelse og helse*, edited by E. B. Sandseter, T. L. Hagen, and T. Moser, 81–97. Oslo: Gyldendal Akademisk.
- Myers, J., P. McAuley, C. J. Lavie, J. P. Despres, R. Arena, and P. Kokkinos. 2015. "Physical Activity and Cardiorespiratory Fitness as Major Markers of Cardiovascular Risk: Their Independent and Interwoven Importance to Health Status." *Progress in Cardiovascular Diseases* 57 (4): 306–314. doi:10.1016/j.pcad.2014.09.011.
- Nicaise, V., D. Kahan, and J. F. Sallis. 2011. "Correlates of Moderate-to-Vigorous Physical Activity among Preschoolers During Unstructured Outdoor Play Periods." *Preventive Medicine* 53 (4-5): 309–315. doi:10.1016/j.ypmed.2011.08.018.
- Norwegian Directorate for Education. 2022. Fakta om barnehager 2021 [Facts about Preschools 2021]. Oslo: Norwegian Directorate for Education.



- Norwegian Directorate for Education and Training. 2017. "Framework Plan for Kindergartens." https://www.udir.no/contentassets/7c4387bb50314f33b828789ed767329e/framework-plan-for-kindergartens-rammeplan-engelsk-pdf. pdf.
- Olesen, L. G., P. L. Kristensen, L. Korsholm, and K. Froberg. 2013. "Physical Activity in Children Attending Preschools." *Pediatrics* 132 (5): 1310–1318. doi:10.1542/peds.2012-3961.
- Osnes, H., H. N. Skaug, and K. M. Kaarby. 2015. *Kropp, bevegelse og helse i barnehagen* [Body, Movement and Health in Kindergarten]. Oslo: Universitetsforlaget.
- Øvreås, S., E. Andersen, T. Borch-Jenssen Moser, and K. A. Jørgensen. 2020. "Å styrke fysisk aktiv lek i barnehagen evaluering av et intervensjonsdesign basert på en høy grad av personaldeltakelse [Strengthening Physically Active Play in Kindergraten Evaluation of an Intervention Design Based on a High Degree of Staff Participation]." Nordisk tidsskrift for utdanning og praksis 14 (1): 134–154. doi:10.23865/up.v14.2090.
- Pagels, P., C. Boldemann, and A. Raustorp. 2011. "Comparison of Pedometer and Accelerometer Measures of Physical Activity During Preschool Time on 3- to 5-Year-Old Children." *Acta Paediatrica* 100 (1): 116–120. doi:10.1111/j. 16512227.2010.01962.x.
- Postholm, M. B. 2010. *Kvalitativ metode. En innføring med fokus på fenomenologi, etnografi og kasusstudier.* [Qualitative Method. An Introduction with a Focus on Phenomenology, Ethnography and Case Studies]. Oslo: Universitetsforlaget.
- Reilly, J. J. 2010. "Low Levels of Objectively Measured Physical Activity in Preschoolers in Child Care." *Medicine & Science in Sports & Exercise* 42 (3): 502–507. doi:10.1249/MSS.0b013e3181cea100.
- Schein, E. H. 1987. *Organisasjonskultur og ledelse. Er kulturendring mulig?* [Organizational Cultur and Management. Is Changes of Culture Possible?]. Oslo: Libro Forlag.
- Senge, P. M. 2006. *The Fifth Discipline: The art and Practice of the Learning Organization*. New York: Currancy/Doubleday. Tucker, P. 2008. "The Physical Activity Levels of Preschool-Aged Children: A Systematic Review." *Early Childhood Research Quarterly* 23: 547–558. doi:10.1016/j.ecresq.2008.08.005.
- Vejalainen, A., E. A. Haapala, J. Väistö, M. H. Leppänen, N. Lintu, T. Tompuri, S. Seppälä, et al. 2019. "Associations of Physical Activity, Sedentary Time, and Cardiorespiratory Fitness with Heart Rate Variability in 6- to 9-Year-old Children: The PANIC Study." *European Journal of Applied Physiology* 119 (11-12): 24872498. doi:10.1007/s00421-019-04231-5.
- Wittek, L. 2018. Identitet som lærer [Identity as a Teacher]. Oslo: Cappelen Damm AS.
- Woolfolk, A. 2007. Pedagogisk psykologi [Educational Psychology]. Trondheim: Tapir Akademisk Forlag.
- World Health Organization. 2019. *Guidelines on Physical Activity, Sedentary Behaviour and Sleep for Children under 5 Years of Ages*. Geneva: World Health Organization. Licence: CC BY-NC-SA 3.0 IGO.