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Everyday interactions between staff and children aged 1-5 in Norwegian ECEC

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ABSTRACT

High-quality early childhood education and care (ECEC) is related to childrens' socioemotional and cognitive development, and the most important aspect regarding quality in ECEC is staff's interpersonal or interactive skills. Despite this, research on staff's interactive skills is currently sparse in Norway. This study uses the Caregiver Interaction Profile (CIP) scales to evaluate staff's interactions with children aged 1–5, asking whether staff interact differently with children aged 3–5, compared to those aged under 3. 19 staff members participated in the study. Videos of individual staff members interacting with groups of children were recorded, coded and analysed in accordance with CIP scales. The main findings show that staff score adequate-to-good for basic interactions (sensitivity responsiveness, respect for autonomy, structuring and limit setting) and inadequate for educational interactions (verbal communication, developmental stimulation, fostering positive peer inetractions) during free play and routine situations. Similar patterns are found for staff regardless of children's age. Limitations and implications are discussed, proposing further research on interaction quality in Norwegian ECEC contexts.

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KEYWORDS
Interaction quality; interaction skills; basic interactions; educational interactions; CIP scales

Introduction

Early Childhood Education and Care (ECEC) is part of the universal educational system in Norway, where all children aged 1–5 have a legal right to be enrolled in ECEC. This system has a long tradition providing for children aged 3–5, but since 2003 the enrolment of children aged 1–2 has increased. Today, 92,2% of all children aged 1–5 attend an ECEC institution. Children spend up to 41 h a week in ECEC (SSB (Statistics Norway) 2020). Research on the quality provided in Norwegian ECEC has until recently been limited. Due to the high enrolment and the amount of time spent in the institutions, it is important to question the quality provided, relating to international research which shows that children benefit both cognitively and socially from high-quality ECEC (Belsky et al. 2007; Vandell et al. 2010; Vermeer et al. 2008). Though 'quality in ECEC' is a complex and multifaceted construct and includes different perspectives, it often refers to 'the aspects of the environment and children's experiences that nurture child development' (Layzer and Goodson 2006, 558). It is also often operationalised in structural quality (e.g.

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economy, staff-child ratio, staff's education, materials/toys) and process quality/proximal quality (staff–child interactions) (Slot 2018). It is largely accepted in the field that the most important aspect regarding quality and children's experiences in ECEC is staff's interpersonal and interactive skills, i.e. how staff create warm environments with rich learning experiences (cf. Broekhuizen et al. 2016; La Paro, Williamson, and Hatfield 2014; Phillips and Lowenstein 2011; Sheridan 2001; Sylva et al. 2006; Vandell et al. 2010). According to Vermeer et al. (2008) staff-child interactions should therefore be the focus when considering quality.

International research reveals that many children experience moderate-to-low quality ECEC. In a recent meta study of ECEC quality in 23 countries Vermeer et al. (2008) found that ECEC quality is at a moderate level for all countries included. They also show high variation in ECEC quality, higher interaction quality in North America than in Europe, and higher quality for the oldest children (age 3–5), though still at moderate level (Vermeer et al. 2016). However, studies across the world (e.g., Australia, Chile, China, Netherlands, USA) that exclusively examine staff-child interactions using the Classroom Assessment Scoring System (CLASS) find mid-to-high quality for emotional supportive interactions and lower quality for instructional supportive interactions. They find the same pattern for all children regardless of age (e.g. toddlers and pre-schoolers) (Hu et al. 2016; La Paro, Williamson, and Hatfield 2014; Leyva et al. 2015; Slot et al. 2017; Tayler et al. 2013). One recent study from the Netherlands which examined the quality of staff's interactions using the Caregiver Interaction Profile (CIP) scales found moderate-to-high quality for basic interactions (comparable with emotional supportive interactions) and moderate-to-low quality for educational interactions (comparable with instructional interactions), and lower quality for infants than for toddlers (Helmerhorst et al. 2014). Besides studies using CLASS, quality of provision for younger children seems to be lower than for older children (see also studies from Lahti et al. 2015; Fenech, Sweller, and Harrison 2010).

Studies focusing on process quality (staff's interactions with children) are scarce in Norway (see also Evertesen et al. 2015). However, the currently completed longitudinal project, Better Provisions for Norway`s children in ECEC (BePro), for the first time examined process quality systematically in ECEC. BePro explicitly evaluated quality of staff's interactions with toddlers in Norwegian ECEC using the CIP scales. 168 staff members (110 ECEC teachers and 58 assistants) from 111 child groups in 93 ECEC institutions participated in the study. In line with international studies the results show interaction quality between 'moderate' and 'adequate-to-good' for basic interactions and between 'moderate' and 'inadequate' for educational interactions, with quality at 'inadequate' level for all staff regarding *developmental stimulation* and *fostering positive peer interactions* (Bjørnestad et al. 2019). Two other Norwegian video-studies, conducted by Klette, Drugli, and Aandahl (2018) and Drugli and Berg-Nielsen (2019), investigated interactions between staff and toddlers using CLASS. The first study, based on 13 toddlers and 13 staff in 11 different ECEC (Klette, Drugli, and Aandahl 2018), found good relational climate in half of the institutions, but low quality language support and facilitated exploration across the different institutions. In addition to the CLASS manual, they also analysed the interaction using the CARE Index. The analysis reveals a worryingly low quality in staff's sensitivity, with a majority of staff in the 'at risk' range (Klette, Drugli, and Aandahl 2018). In the second study, interactions between staff and children in 106 toddler groups in 92 ECEC institutions were observed and analysed. The results show mid-to-high quality

for staffs' emotional supportive interactions and low-to-mid quality for instructional supportive interactions (Drugli and Berg-Nielsen 2019). The Norwegian studies share a focus on children under 3. Contrary to international studies, we lack knowledge about quality of interaction between staff and older children in Norwegian ECEC, e.g. whether staff interact differently with children aged 3–5 compared to the under 3s. Against this background, the current study aims to investigate staff's interactions with children in Norwegian ECEC, posing these questions:

Do staff interact differently with children aged 3–5 years, compared to those aged under 3? If so, what is the nature of the difference?

We apply the CIP scales and, to our knowledge, this is the first time these scales have been used for examining staff's quality of interaction with 3–5 year-olds in Norway and the first time they have been used for examining whether staff interact differently with children aged 3–5 and those under 3.

Staff's interaction skills and quality of interaction in ECEC

Positive relationships and secure attachments between staff and children lay the groundwork for children's social-emotional development and wellbeing. In order to promote secure attachments it is important that staff show positive and supportive behaviour, for example through being sensitive and responsive and respecting children´s autonomy (Ainsworth, Bell, and Stayton 1974; Erickson, Sroufe, and Egeland 1985). Quality of attachment at 12 and 18 months is found to be a strong predictor of children´s behavior at age 4 ½ to 5, and children who have experienced secure attachment at a young age become more ego-resilient, independent, compliant, empathic, and socially competent compared to children who have experienced less secure attachment (Erickson, Sroufe, and Egeland 1985). Sensitive, responsive caregivers enable emotion regulation in infants and toddlers, affecting children's brain development and wiring up the brain for learning (Campos, Frankel, and Camras 2004; Gloeckler 2006). Research has revealed strong positive associations between care provider's responsiveness and children's language development, and children benefit from care providers who promote extended conversations (ex. using a variety of questions, encouraging turn-taking) and who provide more advanced expressive language models (ex. expanding and extending children´s utterances/language) (Girolametto and Weitzman 2002). Supportive relationships between children and care providers are also associated with the development of children's prosocial predispositions, and ECEC programs designed to enhance prosocial values, behaviours and attitudes can be effective, especially where staff are consistent in their instructions (Eisenberg, Fabes, and Spinrad 2006).

When examining quality of interaction, interactions between staff and children are often analysed by using rating scales. Interaction quality criteria in these tools are often described as staff's individual characteristics, interpersonal or interaction skills (Sabol and Pianta 2012). *The Caregiver Interaction Profile scales* (CIP; Helmerhorst et al. 2014) is a recently developed tool which focuses on how staff respond to children's signals and respect children's autonomy (basic interactions), as well as on how staff stimulate children's development (educational interactions). Unlike some of the other scales in use, e.g. the *Caregiver Interaction Scales* (CIS; Arnett 1989) and the *Observational Record of the Caregiving Environment* (ORCE; NICHD Early Child Care Research Network 1996), the CIP

scales have been created explicitly for ECEC groups. The CIP scales are related to the *Classroom Assessment Scoring System* (CLASS) domains of emotional support, classroom organisation (basic interactions) and instructional support (educational interactions) (CLASS-pre-k manual; Pianta, La Paro, and Hamre 2008). However there are also differences between the two scales, as the CIP scales focus on individual staff's interactions with groups of children instead of reflecting all staff's interactions at group level, and the coding/scoring procedure for the CIP scales is based on video-recorded situations (Jilink, Fukkink, and Huijbregts 2018; Helmerhorst et al. 2014 for the CIP; and Pianta, La Paro, and Hamre 2008 for the CLASS).

In the current study, we understand interaction quality in line with underlying ideas in the CIP scales (Helmerhorst et al. 2014). The CIP scales were developed to measure interaction quality in Dutch child care groups and are inspired by theory and research about attachment, prosocial development and developmentally appropriate practice (DAP) (Helmerhorst et al. 2014, 2017). The CIP scales describe different interaction skills assumed to have positive impact on children's wellbeing and development. The skills are conceptualized into two main areas; basic interactions and educational interactions, with the three first scales describing basic interaction skills and the three latter ones describing more educational skills. *Sensitive responsiveness* refers to the extent to which a staff member recognizes children's individual, emotional and physical needs and responds appropriately and promptly to their cues and signals. *Respect for autonomy* refers to the extent to which staff are nonintrusive and recognize and respects the validity of children's intentions and perspectives. *Structuring and limit setting* refers to the capability of a staff member to clearly communicate expectations towards children and structure situations accordingly, and to set clear and consistent limits for children's behaviour. *Verbal communication* refers to frequency and quality of verbal interactions between staff and children. *Developmental stimulation* concerns the degree to which a staff member deliberately attempts to foster children's development (e.g. motor skills, cognitive development, and creativity). *Fostering positive peer interaction* refers to staff members´ guidance of interactions between children.

There are several reasons for using the CIP scales in this study, which is a follow up of the BePro-project examining how staff members understand and practice interaction quality within a Norwegian ECEC context. At the time the BePro-project was planned, few other observation tools were available for evaluating individual staff's interaction skills with groups of children. Contrasting with other rating scales focusing on attachment and interactions (e.g. CIS, ORCE, CLASS), the CIP scales evaluate individual staff members' ability to divide their attention and react consistently between groups of children (Helmerhorst et al. 2014). In order to secure all children's learning and development in a child group, as required by the Norwegian framework plan (FWP) (Norwegian Directorate for Education and Training 2017), it is crucial that the staff members are able to share attention and interactions between individual children in a group. In close collabroation with the developer of the CIP scales, the coding manual for the CIP scales was translated from Dutch to Norwegian and minor adaptions were made to ensure that the scales were suited to the Norwegian context. Using globally standardized tools for evaluating quality might limit the results, e.g. due to the danger of de-contextualisition. Quality should therefore always be considered in its own cultural context (Helmerhorst et al. 2015). However, the theoretical assumptions behind the CIP scales are comparable

to the those behind the Norwegian FWP (Norwegian Directorate for Education and Training 2017). In this study we decided to use the CIP scales for children between 1–5, the typical age range within Norwegian ECEC, despite the fact that the scales were developed for children between 0–4, the typical age range within Dutch childcare (Helmerhorst et al. 2015). One concern when using the scales, as with other international scales, such as CLASS, is the lack of age specific descriptions and requirements in the coding manual. Researchers using the scales need high competence in the field of ECEC, related to child development and children's learning, including attachment theories. It is also crucial when evaluating staff's interaction skills for the age span 1–5 that the team of researchers have the same understanding of what is age appropriate, and are highly consistent with each other in the scoring procedures.

The Norwegian ECEC context

In Norway, 84,4% of children aged between 1–2 and 97,1% of children aged between 3–5 are enrolled in ECEC (SSB (Statistics Norway) 2020). In ECEC institutions, children have typically been organised into different age groups (e.g. 1–2 year olds, 3–5 year olds, 1–5 year olds) with, on average, 11 children in groups of 1–2 year olds and 19 children in groups of 3–5 year olds (Norwegian Directorate for Education and Training 2016). Staff consist of ECEC teachers with a bachelor degree in ECEC,[1] childcare- and youth workers with upper secondary education/vocational training[2] and assistants with no formal education in work with children in ECEC. The most common staff-child ratio is 1–3 for children under the age of 3 and 1–5 for children above the age of 3 (SSB (Statistics Norway) 2018).

The Nordic ECEC model, including Norwegian ECEC, is described as a social pedagogic tradition that focuses on children`s play and personal wellbeing, with an emphasis on children`s agency (Wagner and Einarsdottir 2006). Both the previous FWP (Ministry of Education and Research 2011) and the current FWP (Norwegian Directorate for Education and Training 2017) point out that ECEC institutions are educational institutions that aim to promote childrens wellbeing, learning and broad development and are places where the 'children's curiosity, creativity and thirst for knowledge shall be acknowledged, stimulated and form the basis for their learning processes' (Norwegian Directorate for Education and Training 2017, 22). The current FWP includes new requirements for the staff, stated in terms of what they *shall do* to facilitate childrens wellbeing and development.

Materials and methods

Participants

Being part of the BePro-project, participants for the current study were recruited from ECEC institutions in a specific region already participating in the BePro-project. The participants represent two medium-sized public ECEC institutions with an educational philosophy typical of the Norwegian (and Nordic) ECEC model. The study includes 10 staff members working with children under the age of 3 (in 4 child groups with children aged 1–2) and nine staff members working with children aged 3–5 (in 3 child groups with

children aged 3–5). The staffs' working experience in ECEC institutions varied from four to 28 years; on average they had 13 years of experience. Out of 10 staff members working with children under 3, seven held a bachelor's degree in ECEC, one was qualified as a childcare- and youth worker and two had no formal education directed towards ECEC. Out of nine staff members working with children aged 3–5, four held a bachelor's degree in ECEC, three were qualified as childcare- and youth workers and two had no formal education directed towards ECEC. Group sizes were in line with the national averages mentioned above.

The CIP scales

When applying the CIP scales, staff members are video-recorded for 8–10 min during different daily situations and individual staff member's interactions are rated on a single seven-point Likert-type scale (1 = *very low*, 2 = *low*, 3 = *moderate/low*, 4 = *moderate*, 5 = *moderate/high*, 6 = *high* and 7 = *very high*). For each of the six scales, a general definition of specific interactive skills is described in the CIP manual, followed by three brief descriptions characterising skills at high (6, 7), moderate (3, 4, 5) and low (1, 2) level respectively. Detailed descriptions for each of the seven scale points are also provided in the manual. CIP scores of 4,5 and beyond are considered as 'adequate-to-good', CIP scores between 3,5 and 4,5 are considered as 'moderate' and CIP scores of 3,5 and below are considered as 'inadequate' (Fukkink et al. 2019).

Procedure

Video-recording took place in August 2016, when the same trained researcher visited all child groups, between 08:00 am and 3:00 pm to video-record interactions between individual staff members and children throughout the day. As suggested by Helmerhorst et al. (2015), individual staff were recorded for 8 to 10 min in diaper/toilet situations, free play situations, mealtimes, and transition periods. No special instructions were given before the video-recording except to 'act as usual' during the day. The number of children in the groups were not fixed by the researchers before the video-recording. Eight staff members were video-recorded in five situations; eight staff members in four situations; and the remaining three staff in three situations. One situation, the diaper/toilet situation, is missing for all three staff members working in one of the 3–5 years old child groups due to practical and/or ethical reasons. All the other video-recorded situations were rated with the CIP scales (Helmerhorst et al. 2014). However, in the current study we only examine staff members´ interactions skills in the situations where all 19 staff members were video-recorded; free play situations, mealtimes and transition periods. According to the developers of the CIP scales, three video-recorded situations are considered enough for creating individual interaction profiles (Helmerhorst et al. 2014). According to Hallam et al. (2016) routine situations (such as mealtimes and transition periods) and free play situations which happen every day, create opportunities for meaningful interactions between staff and children that can facilitate children's learning and development. Individual interaction profiles based on free play situations, mealtimes and transition periods can therefore offer a unique perspective on the daily experiences of children and the quality provided for the children.

Data analysis

Each of the video recorded situations was coded on a seven-point Likert-type scale for sensitive responsiveness, respect for autonomy, structuring and limit setting, verbal communication, developmental stimulation and fostering positive peer interactions. During the coding process we focused on one individual staff member interacting with groups of children, but the number of children in the groups differed from situation to situation, depending on the situation. The number of children during the video-recorded situations was between 2 and 6. Free play situations typically allowed children to come and go as they wanted, transition periods usually started with smaller groups of children, but here children also left the group and new children came into the group. The mealtimes were the situations with most stable child groups but here too the group sizes differed due to organisational issues. However, the focus was mainly on *individual staff* and how they interacted with children present in the situations. We examined whether individual staff members' showed consistency in the way they acted or whether they changed, depending on the children, time and situation. For example, regarding sensitive responsiveness we examined whether, during free play situations, transition periods and mealtimes, the staff member:

> Shows warm and genuine interest in the children and provides emotional support when needed. In general, the staff responds promptly and appropriately to the children's signals, thereby functioning as a "secure base" for the children. If unable to respond, she/he acknowledges having noticed the signal and provides a more complete response as soon as possible (high level 6,7).

Or whether she/he:

> Provides emotional support to the children, but her/his support is inconsistent. The emotional support she/he provides may vary across children and/or across time. She/he sometimes misses signals and her reactions are not always adequate (moderate level 3,4,5).

Or whether she/he:

> Hardly provides emotional support to the children. She/he misses many signals or her/his reactions are too slow or inadequate. She/he may show indifferent or detached behavior.

(Helmerhorst et al. 2014, 778).

Scores for sensitive responsiveness in each situation (free play situation, transition period and mealtime) were then converted to mean scores for each staff member.

Both authors were trained in rating the scales by the developer of the CIP scales in the Netherlands. The researchers completed the training when they reached a within-1-point agreement of 80% with the expert score for five videos. All the videoes in the current study were coded by one of the researchers. Although, to ensure high relability in the coding process interrater reliability was computed for 10% of the videos. The interrater reliability with absolute agreement was 83% and within 1-point agreement 98%.

Ethical considerations

The study follows ethical standards and privacy policies and is reviewed and approved by the Norwegian Social Science Data Service and the Norwegian Data Protection Authority,

and data have been anonymised. In addition to the staff, parents in each child group actively gave their written consent to videoing. Only children of parents who gave their consent were recorded. The participants' wellbeing and confidentiality were foregrounded during the recording procedures, and we stopped recording when children or staff signalled (by body or verbal language) that they were uncomfortable with the situation.

Results

Results from the analysis of the video-recorded situations are presented by using descriptive statistics. Table 1 presents the results as quality scores for the six CIP scales for all staff members.

As shown in Table 1, the staff received higher scores for basic interactions than they did for educational interactions. For basic interactions *(sensitive responsiveness, respect for autonomy, and structuring and limit setting)* all the mean CIP scores are within the 'adequate-to-good' level. As we can see from the results in Table 1, all the mean CIP scores for educational interactions (*verbal communication, developmental stimulation and fostering positive peer interactions*) are 'inadequate'. Descriptive statistics also show variation in CIP scores within the scales, with the highest variation for *structuring and limit setting;* from a score considered as 'inadequate' to the highest possible score. Variation in scores was examined against staff members´ child group affiliation; staff working with children under the age of 3 (N = 10) versus staff working with children aged 3–5 (N = 9). Table 2 and 3 present the results as quality scores for the six CIP scales, for staff members who work with children under the age of 3 and with children aged 3–5, respectively.

As shown in Tables 2 and 3, similar patterns were found for staff members working with 1–2 year-old children and 3–5 year-old children. Regardless of the children's age, all mean CIP scores are within the 'adequate-to-good' level for basic interactions and within the 'inadequate' level for educational interactions. However, the CIP scores show that only staff working with 1–2 year-old children received a high mean CIP score (above 6) for basic interaction skills, more specifically for *structuring and limit settings*. The CIP scores also show that staff working with 1–2 year-old children received a higher mean CIP score on all scales except for *verbal communication*, where the staff working with 3–5 year-old children scored higher (close to moderate).

Table 1. Descriptive statistics of quality scores for the six CIP scales, all staff members. SD is only included for scores that are normally distributed.

CIP scales	N	Minimum	Maximum	Mean	SD
Sensitive responsiveness	19	4.00	6.33	5.30	0.78
Respect for autonomy	19	4.00	6.67	5.88	-
Structuring and limit setting	19	3.00	7.00	5.86	0.96
Verbal communication	19	2.33	4.00	3.16	0.51
Developmental stimulation	19	1.33	3.00	2.14	-
Fostering positive peer int.	19	1.00	3.33	1.46	-
CIP Total	19	2.61	5.05	3.97	-

Note: N = 11 ECEC teachers, 4 childcare- and youth workers and 4 assistants. Individual CIP scores on free play situations, transition periods and mealtimes.

Table 2. Descriptive statistics of quality scores for the six CIP scales, staff members working with children under the age of 3. SD is only included for scores that were normally distributed.

CIP scales	N	Minimum	Maximum	Mean	SD
Sensitive responsiveness	10	4.3	6.3	5.40	0.75
Respect for autonomy	10	4.7	6.7	5.90	0.82
Structuring and limit setting	10	5.0	7.0	6.17	0.71
Verbal communication	10	2.3	4.0	3.03	0.53
Developmental stimulation	10	1.7	2.7	2.27	-
Fostering positive peer int.	10	1.0	3.3	1.68	-
CIP Total	10	3.17	5.0	4.07	-

Note: N = ECEC teachers, childcare- and youth workers and assistants. Individual scores on free play situations, transition periods and mealtimes.

Table 3. Descriptive statistics of quality scores for the six CIP scales, staff members working with children aged 3–5. SD is only included for scores that were normally distributed.

CIP scales	N	Minimum	Maximum	Mean	SD
Sensitive responsiveness	9	4.0	6.3	5.18	0.83
Respect for autonomy	9	4.0	6.3	5.85	-
Structuring and limit setting	9	3.0	6.7	5.52	-
Verbal communication	9	2.3	4.0	3.30	0.48
Developmental stimulation	9	1.3	3.0	2.00	-
Fostering positive peer int.	9	1.0	1.7	1.22	-
CIP Total	9	2.6	4.67	3.84	-

Note: N = ECEC teachers, childcare- and youth workers and assistants. Individual scores on free play situations, transition periods and mealtimes.

Discussion

The current study focuses on staffs' interactions in Norwegian ECEC during free play situations, transition periods and mealtimes evaluated according to CIP criteria. A special focus is directed towards staffs' interactions with children aged 3–5 compared to staffs' interactions with children under the age of 3.

The main finding is that all staff, regardless of children's age, received higher CIP scores for basic interactions than they did for educational interactions. The staff received similar mean scores whether they worked with 1–2 year-old children or 3–5 year-old children. Findings from the current study support findings from international studies showing that children experience the same level of interaction quality regardless of their age (toddlers versus pre-schoolers) (Hu et al. 2016; La Paro, Williamson, and Hatfield 2014; Leyva et al. 2015; Slot et al. 2017; Tayler et al. 2013). Staff in the current study seem to value positive relationships and secure attachments with the children over actively stimulating children ´s learning processes. Secure attachments are considered important for children's well-being and as a foundation for children's further learning and development and are therefore important for staff to focus on (Ainsworth, Bell, and Stayton 1974; Campos, Frankel, and Camras 2004; Erickson, Sroufe, and Egeland 1985; Helmerhorst et al. 2014). Secure attachments are associated with staff who meet children with sensitive responsiveness, who respect children's autonomy and who structure and set limits to provide the best possible conditions for the children (Ainsworth, Bell, and Stayton 1974). Findings from the current study show that the staff who work with children under the age of 3 receive higher mean quality scores on all CIP scales, except for verbal communication, than staff working with older children. This may be attributed to organisational issues (e.g.

staff-child ratio). When dividing attention between fewer children it is easier to structure and limit situations. This is in line with findings from other studies which show higher quality when staff have fewer children to care for (see Vermeer et al. 2016). This can not, however, explain staffs' scores for verbal communication. The staff appeared to actively engage in stimulating children's language or broader development, for example through promoting extended conversations or by expanding and extending children's utterances or ideas, only to a limited degree, regardless of the children's age (see Girolametto and Weitzman 2002). While attempting to do so, they often showed inconcistency in the way they did it, or they varied depending on children, time and the actual situation (free play, transitions or mealtimes). Very low CIP scores for *fostering positive peer interactions* also indicate that staff members were activily engaged in fostering positive child-child interactions, e.g. children's prosocial values, attitudes and behaviours only to a limited degree (Eisenberg, Fabes, and Spinrad 2006). Scores for *fostering positive peer interactions* are surprisingly low for all staff members, especially when taking into consideration that children's wellbeing and social competence are highly valued in Norwegian ECEC (Wagner and Einarsdottir 2006). It is also intereresting that staff, on average, receive moderate scores for respect for children's autonomy, since children's agency has been emphasised in the Norwegian model (Wagner and Einarsdottir 2006). Children's right to participation is also regulated by law in Norway. In order to receive a high score (6,7) in the CIP scales, the staff have to show respect by actively encouraging children to do things on their own as much as possible and make choices themselves, and by showing appreciation of children's ideas and allowing the children to negotiate. They ask children to cooperate instead of commanding them and giving orders.

Findings from the current study are in line with findings from the main BePro-project which found lower interaction quality than expected for staff members working in toddler groups, both for basic interactions and educational interactions, and lowest for educational interactions, especially for fostering positive peer interactions (Bjørnestad et al. 2019). Results from the current study are also in line with other studies in Norway that found low quality regarding staff members´ language support and facilitated exploration (related to CIPs domains of educational development) and higher quality for emotional, supportive interactions (related to CIPs domains of basic interactions) (Drugli and Berg-Nielsen 2019; Klette, Drugli, and Aandahl 2018). Whereas Klette, Drugli, and Aandahl (2018) found low quality across institutions for staff members´ sensitivity and Drugli and Berg-Nielsen (2019) found higher quality for emotional supportive interactions than for instructional interactions, the current study finds that individual staff members´ sensitive responsiveness (emotional support) range from moderate to high quality. However, most prominently there seems to be an imbalance between staff members´ basic interactions and educational interactions. Looking at the Norwegian ECEC tradition where free play, 'motherly' skills and positive relationships between staff and children have been highly valued (Alvestad, Tuastad, and Bjørnestad 2017), it is not surprising that staff mainly focused on basic interactions. On the other hand, considering the guidelines for pedagogical work in ECEC in the FWP where care, play and learning are all viewed as impotant for children's development, we expected the staff to be more focused on facilitating children's learning and development during free play and routine situations/periods, and especially that they would challenge children in naturally occurring situations (based on children's interest and experiences). While international research stresses

the importance of staff balancing basic interactions and educational interactions to facilitate children's wellbeing and development, this seems not to be the case in the current study (see Siraj et al. 2017 for an overview). It can be questioned whether staff meet the FWP requirements for staff with regard to creating both a caring community and a challenging learning environment for *all* children (Norwegian Directorate for Education and Training 2017). According to the FWP, children's wellbeing, happiness and achievement should be in focus and should be something that all staff members strive for (Norwegian Directorate for Education and Training 2017).

Limitations and implications

Due to practical considerations (time, researchers and funding), it was not possible to expand sampling outside the region included, and the sample limits the scope of the study. Because of the fairly limited number of observations in the current study, it is not possible to generalise from the findings. Other staff members working in other ECEC institutions might have achieved other quality scores and produced other findings. We only analysed three video-recorded situations (free play, mealtimes and transition periods) for each of the staff members (though we alanysed in total 30 min per staff members) (Helmerhorst et al. 2015), something that might be a limitation. However, the developers of the scales have video-recorded and analysed only three situations in a recent study (cf. Fukkink et al. 2019). Another limitation of the study can be related to the tool itself. Even if it fits well with the Norwegian FWP (see The Directorate of Education and Training 2017), it can be questioned whether the CIP scale is too demanding, particularly regarding educational interactions in the Norwegian ECEC context. On the other hand, moderate quality scores for fostering positive peer interaction require that the staff sometimes – not consistently – give attention to positive interactions between the children; sometimes staff react to or promote positive interactions and sometimes not. This should be realistic in the Norwegian ECEC context where children's emotional wellbeing and social competence are assumed to be highly valued (see also Alvestad, Tuastad, and Bjørnestad 2017; Bjørnestad et al. 2019) Another limitation may be that the CIP scales were created in the Netherlands for Dutch child care groups. However, the scales were discussed and translated to Norwegian in close cooperation with the developers of the scales, and minor adaptations were made due to differences between the Dutch and the Norwegian ECEC context (see also Bjørnestad et al. 2013). The CIP scales build on systematic literature reviews and empirical evidence underpinning the relationship between the interaction skills described in the scales and children's developmental outcomes (Helmerhorst et al. 2014, 2015) and are concidered valid for observing interaction quality in ECEC (OECD 2015). Beliefs about 'motherly' skills, particularly sensitive responsiveness, seem to a large degree to be similar across country borders, though some aspects of interactions (e.g. eye-to-eye contact) can vary across cultures (Kärtner, Keller, and Yovsi 2010; Mesman et al. 2015). On this basis we can assume that findings related to sensitive responsiveness (and maybe also respect for children's autonomy and structuring and limit situations) are not biased by cultural differences between the Netherlands and Norway. However, the findings may be biased by the fact that the CIP scales are not age-specific, since they do not make any distinctions between interaction quality criteria due to children's age. A 1 year-old child needs different attention and interactions from staff than a 5 year-old child. Results are related to the researchers'

understanding of childen's development, learning and attachment theory. Further research is needed to validate the CIP scales for the whole age-span in the Norwegian ECEC context, as well as the age-specific (0–5) relevance of the scales.

However, findings from the current study resonate with findings from other Norwegian studies, using different tools and methods, and support both concerns and recommendations from these studies. There seems to be a need to focus more on interacion quality in the Norwegian ECEC context and to increase staffs' interaction skills independent of children's age. While staffs' interactions with children are key to children's experiences and the quality in ECEC, we should at least ensure staff's interaction competences (Evertesen et al. 2015) are sufficient to offer high-quality interactions on a daily basis (Riksen-Walraven 2004 in Vermeer 2008). As argued by Van Oers (2003), to be sensitive to a child's experiences and when the child is developmentally open to new experiences, is one of the most important tasks for the staff to master. Findings from this study suggest that all staff members, regardless of children's age, need to focus more on their own interactions with children and especially on how to develop/increase their own interactive skills.

Notes

1. Education directed towards pedagogical work with children aged one-to-five in ECEC institutions.
2. Education directed towars health- and pedagogical work with children and youth aged one-to-eighteen in different health and educational institutions.

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