Intellectual and Developmental Disabilities Capturing Staff Perspectives on Quality Interaction with Clients with Intellectual Disabilities: A Diary Study --Manuscript Draft--

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Abstract:	For people with severe or profound intellectual disabilities, support staff are important interaction partners. The quality of their interactions, a multi-dimensional construct, is well-documented, but the staff perspective remains underexposed. This study aims to capture the behaviours, thoughts and emotions of staff when interacting with their clients, and their views on what constitutes quality. Thirty-four support staff completed a five-day diary about a daily interaction with a specific client. A thematic analysis was carried out. The diary entries depicted behaviours and thoughts with different foci, and emotions with positive and negative valences. The pursuit of 'Harmonisation' and the experience of 'Return' emerged as overarching dimensions central to staff's views on quality interaction. Limitations and directions for future research are discussed.

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For people with severe or profound intellectual disabilities, support staff are important interaction partners. The quality of their interactions, a multi-dimensional construct, is well-documented, but the staff perspective remains underexposed. This study aims to capture the behaviours, thoughts and emotions of staff when interacting with their clients, and their views on what constitutes quality. Thirty-four support staff completed a five-day diary about a daily interaction with a specific client. A thematic analysis was carried out. The diary entries depicted behaviours and thoughts with different foci, and emotions with positive and negative valences. The pursuit of 'Harmonisation' and the experience of 'Return' emerged as overarching dimensions central to staff's views on quality interaction. Limitations and directions for future research are discussed.

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The importance of social interactions for wellbeing is well established (e.g., Helliwell & Putnam, 2004; Schalock, 2004). People with intellectual disabilities happen to spend large proportions of their days without social interaction, risking isolation and disengagement (Beadle-Brown et al., 2016; Forster & Iacono, 2008; Netten et al., 2010). People with severe or profound intellectual disabilities depend to a large extent on the care and support provided by others. Despite a shift towards family and communitybased support, in many countries this group is still often supported by professional carers, frequently in the context of day centres or small group homes. A study on people with profound intellectual and multiple disabilities living in group homes has found that they are having contact with an average of five non-professional persons per year of whom a large proportion are relatives (Kamstra et al., 2015). Staff thus form a large part of these clients' social network (Engelhardt, 2021). Their social interactions are, however, not always without complications. Because of the clients' often limited verbal communication (Hostyn & Maes, 2009), for instance, staff have the 'sensitive responsibility' to read the individual's behavioural cues and adjust the interactional situation in accordance to the individual's ad hoc capacities and needs (Wilder & Granlund, 2003). To add to the ongoing complexities, staff employed in day-care centres or residential group homes report experiencing high workload and stress, often leading to burnout and high numbers of staff turnover (Mutkins et al., 2011; Shead et al., 2016). Altogether the dependency of people with severe or profound intellectual disabilities, their highly idiosyncratic communication styles, and a working context characterised by high demands and turnover, bring specific challenges to the interactions between staff and their clients. These challenges may lead to frequently occurring misunderstandings during interactions or resignations from the interactions, hence putting the interactions at risk of becoming less mutually rewarding (Hostyn, 2011; Martin et al., 2022; Porter et al., 2001) and jeopardising the quality of the interactions.

Interactions are processes of reciprocal engagement and mutual influence, the message eventually being conveyed being left out of the equation (Blokhuis & van Kooten, 2003; Hostyn, 2011). The continuous process of co-regulation is key (Hostyn, 2011; Hostyn & Maes, 2009). This is the mutual

moulding of one interaction partner's behaviour guided by an interpretation of the other's present and expected behaviour (Fogel, 1993). Furthermore, quality interaction is characterised by a sensitive, empathic observation and subsequent alignment of the interaction partners' interactive behaviours. A 'sensitive attitude' is required (Tournier et al., 2022). This dialogical process has been described as 'sensitive responsivity' (Hostyn & Maes, 2009), 'sensitive responsibility' (Wilder & Granlund, 2003), or 'attuning' (Griffiths & Smith, 2016). Most recently, in their 'Theory of Reconciling Communication Repertoires', Martin et al. (2022) state that communication (or interaction) is successful when the 'communication repertoires' are effectively reconciled and when the connection, through which the interaction takes place, is sustained, whatever the message (not) being conveyed. Another important dimension is joint or shared attention: a shared focus of interaction partners on, e.g., an event or object (Hostyn & Maes, 2009; Neerinckx & Maes, 2016; Wilder & Granlund, 2003). Tournier et al. (2022) argue that engaging in an activity together can provide a context that may foster opportunities for a 'real connection'. Penninga et al. (2022) also described support staff feeling connected with the client during interactions. During interactions, an emotional component is also at play. Hostyn and Maes (2009) as well as Penninga et al. (2022), for instance, reported support staff enjoying the interactions with clients and having fun. Wilder and Granlund (2003) described joy as a constitutive component of successful interactions. Vanono et al. (2013) discussed verbal and non-verbal warmth as positive interaction categories. Martin et al. (2022), in their theory, described 'belonging' as the central concept to strive for when aiming for quality interaction. Lastly, attitudes are mentioned, as high quality interactions happen in an atmosphere of openness, respect, genuine interest and appreciation (Vanono et al., 2013; Wilder et al., 2004; Wilder & Granlund, 2003).

The dimensions described above carry a dyadic understanding. They present a general picture that excludes the perspectives of the individual interaction partners on what constitutes quality. Although it should be emphasised that the experiences of the clients should not be overlooked, staff should be recognised as an important partner in the pursuit of quality interactions. Their perspective is equally

important, especially given their central and influential position in practice. However, limited research has been conducted on their perspective on quality interactions. To fully understand the staff's point of view, their ongoing behaviours, thoughts and emotions should be taken into account as they form the basis of their perspectives. Including these can broaden the horizon. In addition, when interested in experiences, interviews or questionnaires are often used. However, these measures often assume relative stability and ask for a general state (Lischetzke, 2014; Ohly et al., 2010), which does not adequately address the uniqueness of each interaction and the daily variation in perceived interaction quality. This study focusses on the daily interactions between staff and their clients. The aims of the study are (1) to describe staff's behaviours, thoughts, and emotions when interacting with a client with severe or profound intellectual disabilities and (2) to capture staff's views on what characterises quality interaction.

Method

Procedure

Recruitment took place via the managing or pedagogical directors of day-care or residential group homes for people with severe or profound intellectual disabilities or via centres of expertise located in Flanders (Belgium) or the Netherlands. They were requested by the authors to distribute short flyers via email, their internal online platform ('intranet'), or via social media or newsletters. Staff who were willing to participate contacted the authors and received a link to an online platform containing the informed consent form, registration form and the background questionnaire. After inclusion criteria were checked, the staff received a new link to an online platform containing the daily diary. They returned to the online platform through this last link for each diary entry. Data collection commenced August 2021 and was concluded October 2021. The study involved university research in the public interest and was reviewed and approved by the Social and Societal Ethics Committee of the university (approval number G-2020-2505-R6(AMD)), which pays particular attention to moral relevance, appropriate methodology, relevance to the public interest and respect for the integrity, dignity and rights of the participants, prior to participant recruitment.

Participants

Participants were staff members employed in day-care or residential group homes for people with severe or profound intellectual disabilities. They had an employment rate in the group home for at least 70% and had at least two years of relevant working experience and six months of working experience in the group home. Staff choose one client to report on, with whom they had frequent, daily and direct (face-to-face) contacts. Clients needed to be older than twelve, have been visiting the day-care or group home for at least six months, were diagnosed with a severe or profound intellectual disability, and were not to be going through major changes during the period of data collection (such as relocation to another group home). Not more than one staff member from each group home participated to avoid overburdening of the group homes. Thirty-six staff members signed up for participation. Two were excluded because of not conforming to the inclusion criteria (i.e., an employment rate of at least 70% and the client being diagnosed with a severe or profound intellectual disability), resulting in 34 participating staff members. Demographic and background details on the participating staff, their clients reported on, and the group home is presented in Tables 1-3.

-INSERT TABLE 1 TO 3 HERE-

Instruments

Daily diaries allow capturing events and subjective experiences in the natural context, on repeated occasions and during a certain time period (Janssens et al., 2018; Lischetzke, 2014; Ohly et al., 2010). A qualitative diary study may in addition facilitate the visibility of nuances and individual differences, therefore enhancing the applicability of the collected knowledge as a whole (Johnson & Onwuegbuzie, 2004).

A diary was composed asking for one interaction with a specific client which the staff member remembered happening during the day. The event sampling checklist by Janssens et al. (2018) guided the construction of the diary. Staff were asked to fill in the diary at the end of each working day for a total of five working days. These entries were asked to be as continuous as possible, taking into account weekends, holidays or sick leave. To inform staff about how to fill in the diary, during the first diary entry staff were presented with three exemplary diary excerpts of various situations: an unpleasant situation, a situation with mutual joy, and a situation that transitions from unpleasant to joyful. The diary entry was guided by four questions:

- There were several interactions between you and the client today. Describe one such interaction that has stuck in your mind. How did the interaction go? How would a fly in the room describe the interaction? Pay attention to your own behaviour and that of the client.
- What was going on in your mind during the interaction? Give an insight into your thoughts or perceptions at that moment. Thoughts or perceptions can be about yourself, about the client, about the interaction, ...
- 3. What emotions and feelings did you experience during the interaction?
- 4. To what extent did you consider this interaction to be of high quality? 'Low quality high quality' (scale; a score of 0-100 is given based on the position of the cursor). Please explain your answer.

In addition to the diary, participants were asked to fill in a background questionnaire. This questionnaire asked for characteristics on the level of the staff, client, and group home. The background questionnaire was filled in once, together with the registration and informed consent form. The present study has been preregistered (https://osf.io/uzmq7) and the authors refer to this preregistration for the complete list of background variables asked for. All instruments were distributed through the online survey platform Qualtrics (Qualtrics, 2022).

Qualitative analysis

Inductive, semantic thematic analysis (Braun & Clarke, 2006) was performed on the diary entries. In vivo codes were captured, guided by the pre-defined categories Behaviour, Thought, Emotion and Interaction quality. Inspired by Experience Sampling Methodology ("a research procedure for studying what people do, feel, and think"; Larson & Csikszentmihalyi, 2014, p.21), these pre-defined categories

were used to ensure that the foundations of the participants' viewpoints were considered. Next to the in vivo codes the 'why's' behind the codes were jotted (noted). Jottings are mental notes that can strengthen the coding by pointing at deeper or underlying issues that deserve analytic attention (Miles et al., 2020). For each category, the in vivo codes with their respective jottings were then organised into meaningful groups (Tuckett, 2005) and next sorted into potential themes (Braun & Clarke, 2006). Repeated encounters with similar in vivo codes (or jottings) offered guidance in (sub-) theme development (Miles et al., 2020). Regarding the category Interaction Quality, codes were clustered here if they gave an answer to the question 'What determines that staff considered the described interaction to be (not) of high quality?'. The same code could be clustered in one or more categories or (sub-) themes. The themes were then reviewed (eliminated, merged or split at the level of the coded data extracts and in relation to the whole data set), guided by principles as coherence and distinction (Braun & Clarke, 2006), and named. All but one of the theme names were developed inductively and as such emerged from the data itself. For one theme only, inspiration was found in the literature on teacher education (Kelchtermans, 2018). The quantitative indication of the quality of the interaction (question four, see above) was not included in the analysis. This decision is substantiated in the discussion.

During data analysis several credibility strategies were employed (Mortelmans, 2020). For instance researcher triangulation (the co-authors coding a subset of data, which was then compared and discussed until consensus was reached), and peer examination (the main author discussing the various themes and their content with external researchers until consensus was reached). For more information on the employed credibility strategies and an argumentation on the decisions made, the authors refer to the study's preregistration (https://osf.io/uzmq7/?view_only=a371fec603a840719748b28068871d23).

Results

Twenty-nine participants (85.29%) sent in a complete five-day diary, five participants (14.71%) sent in partial diaries with two (n=1), three (n=2) or four (n=2) diary entries. In total 161 diary entries were received. After the first stage of data analysis, a total of 1666 data fragments were coded, relating to and

divided into four categories: Behaviour, Thought, Emotion and Interaction Quality. For each category themes were developed inductively through thematic analysis (Table 4).

-INSERT TABLE 4 HERE-

Behaviour

Most of the coded data described staff behaviour (n=577, 34.63%). Behaviours were oriented towards the needs of the clients or towards the connection with the client.

Needs-oriented

Staff indicated they provided **care and support**, such as clothing, feeding, washing, turning on the TV or waking the client. These care and support activities, according to staff, provided opportunities for individual attention and hence a context in which interactions could take place. Furthermore staff reported they provided **security**, mostly in a verbal way. They, for instance, announced activities that were about to happen, informed the client about their ongoing actions, explained a situation or made jokes. Though also nonverbal strategies were described, such as being physically close, engaging in a known, recognisable activity, distracting the client or radiating a calm mood. In doing so they clarified the environment and provided reassurance.

The client is about to take a bath. I prepare her for what is going to happen. Lying on the bath stretcher is not very pleasant for her, but on the way to the bathroom she often makes the association with taking a bath. This time, too, I noticed stress as there were some facial twitches and tension in the limbs when lying on the bath stretcher. However, when I start to drive the bath stretcher and tell her what we are going to do, she has an open look, her limbs are relaxed and she raises her arms and moves them enthusiastically, smiling. (Participant 20 – Day 3)

Staff described providing **guidance** and as such steering the clients' behaviour to perform or to stop a particular action. This could occur in a strong or more gentle way, i.e. a commanding or coaching style. Staff provided guidance mostly in a verbal way, though also the use of gestures was described. Besides guidance, also **reinforcement** of clients' behaviour was reported. Staff positively or negatively reinforced the clients' behaviour, intending to increase or decrease the likelihood of the particular behaviour in the future.

I thanked him for helping me and gave him 'our' fist bump. The fist bump is our thing. (Participant 4 – Day 3)

Lastly, staff indicated to provide the clients with **opportunities for identity development**. They described leaving room for autonomy development, personality, and self-determination. For instance, staff reported ensuring the clients' privacy, giving choices, asking for input or agreeing with a client's wish.

Connection-oriented

Staff were striving for a connection with the client, so interaction could take place. **Connecting** was indicated to happen from a sensitive position: when staff noticed tension or passivity on the clients' part, they used various strategies as to better connect. Staff described bringing themselves to eye level, singing, calling the client by name, coming closer, or touching the client.

When connected, staff could spend individual time **engaging** with the client. This could take many forms, such as singing a song, spending one-to-one time or having a conversation. Activities were also carried out, whether parallel, such as going to the supermarket, or cooperative, such as doing a jigsaw puzzle side by side. Engaging behaviours were the most coded behaviours (n=139, 24.09%).

I arrive at work and put my coat and bag behind the desk. At that moment the client comes running to me, yelling my name and arms wide open. He gives me a long hug and tells about what he had eaten, that his mom is about to call, that I am working the late shift, etc. (Participant 24 – Day 2)

Lastly, in order to facilitate the ongoing interaction, staff described **adjusting** their interactive behaviours. They reported adjusting their position, therefore placing themself or an object at the

appropriate height. Another strategy existed in the staff deliberately giving time to the client, e.g., to respond to the other person's communication or to mentally process the situation. Staff were also attentive on how they used their voice, e.g., adjusting pitch. Lastly, they reported initiatives to resolve confusion by repeating their own message or by asking for clarification.

Thought

Staff described their thoughts occurring during the interactions (n=390, 23.41%). Thoughts were about the client or about themselves.

Client-oriented

Staff reported **bringing out experiential knowledge** about the client. They described having knowledge about preferences, likely responses, routines or 'what works' and called on this knowledge in the moment. Only three coded fragments were about guidelines that were formally agreed upon, all others were about knowledge gathered through experiences.

I know the client struggles with transitions and doesn't like to begin playing a board game. However, I also know that, once started, he enjoys the boardgame. (Participant 9 – Day 5)

The majority of thoughts reported by staff were about **interpreting** the client's behaviour (n=135, 34.62%). They described forming an idea of the clients' state of mind or experience, or cause behind the behaviour by interpreting their behaviour. It is remarkable that the interpretations were often formulated as facts. Additionally, a subsection of 18 fragments were about explicit doubts. In these cases, staff were reflecting on the client's behaviour, were unsure of its significance and questioned it. Furthermore, staff described putting themselves in the perspective of the client, they were **empathising**. Staff reported thoughts of understanding or compassion.

The client tells me she is unable to go home this weekend. I know how she always looks forward to the weekend. I understand she has a difficult time coping with this news. (Participant 6 – Day 4)

Lastly, staff reported **venting** negative thoughts about the client. These thoughts indicated feelings of frustration. By venting these frustrations internally, staff seemed to have found a way to let them out.

Self-oriented

Firstly, staff discussed mentally **directing their own behaviours**. They were, e.g., making plans and setting goals, or encouraging themselves to perform an action or to accept a given situation.

I consciously take a pause between the songs. I take my time so she has a chance to react and take initiative herself. (Participant 34 – Day 5)

Furthermore, staff reported **ad hoc reflection**: they were reflecting upon their own actions in the moment. This is referred to as ad hoc reflection, as the time of reflection differs from reflection after action (post hoc). Staff's ad hoc reflections were about the idea of reaching success or seeing progress with the client, or about the idea of having failed. Lastly, staff described thoughts about their own role. This theme emerged inductively, but a distinctive name was difficult to find. Inspired by Kelchtermans (2018), this theme was eventually named 'Task perception'. Kelchtermans' notion of task perception, developed in the field of teacher education, is about the professional agenda and has ties to values and morality: 'What must I do to be a proper teacher and what are my duties?'. In the diary fragments, this idea of task perception surfaces strongly when thoughts about values and responsibilities are described.

I think it's important to really understand what the client means, and not just act like I understood. (Participant 4 – Day 5)

I thought I had to be quick and follow the client as he got up from the table. If not, he'll make a mess on the first floor. (Participant 3 – Day 5)

Emotion

Staff described experiencing various emotions during the interactions (n=338, 20.29%). Positive and negative emotions have been distinguished.

Positive emotions

Staff mostly described positive emotions (n=216, 63.91%) of which feelings of **joy** were reported the most (n=91, 26.92%). They described feeling happy or joyful because of a variety of reasons, e.g. accomplishing success, the clients' happy mood or the perception of appreciation by the client. Staff also described experiencing **satisfaction**. They felt satisfied because of the successful result of a chosen approach, the possibility to offer individual attention, the mood of the client, perceived progress in the client's development or perceived appreciation.

It feels good to be able to give individual attention. Clients enjoy it so much and M. certainly does: she can't react much but you can see her smiling, radiating and teasing back. (Participant 13 – Day 3)

Furthermore staff reported feeling at ease and relaxed: they experienced **peace**. They showed patience to the client or experienced safety in an otherwise tense situation. In this respect, staff also described feelings of **relief**, for example, because of concern for the client's health or mood.

I was relieved. I saw the client has got a little better. She was less pale and had a bright gaze. (Participant 20 – Day 1)

In one-to-one situations that evoked feelings of tenderness and warmth, staff indicated to experience **connectedness**. Moreover, connectedness was perceived in situations that confirmed a mutual connection, characterised by feelings of interest or friendship. Lastly, staff expressed **amazement**. They were surprised by unexpected opportunities or unusual routines of the client, were euphoric about new gains or were proud of themselves and/or the client.

I sit on the client's bed, side by side, looking at pictures in a photo album. I am pleasantly surprised he didn't request me to leave the moment I sat down. He sits next to me, peeking at the pictures, slowly loosening up. (Participant 11 – Day 4)

Negative emotions

A number of different emotions with a negative valence were identified. Firstly, staff expressed **concern**. Concern was suggested in staff descriptions when they picked up signals of risk to the physical or mental well-being of clients and were concerned. Two fragments were about concern for the wellbeing of other residents. Furthermore, staff reported **confusion**: they felt puzzled or unsure, in a negative sense. Staff were, for instance, startled by certain behaviours of the client or weren't expecting these behaviours. Also, situations were described wherein staff failed in making sense of the situation or the clients' behaviour.

P. choose to make a puzzle. Enthusiastically she took a seat at the table, the puzzle in front of her. I encourage her and go to another client for a moment. When I come back, I see she didn't even start with the puzzle. I ask what's wrong but she just smiles. I was confused as she couldn't make clear what's wrong. (Participant 7 – Day 1)

Moreover, staff expressed **unease**. They felt uncomfortable, ill at ease or guilty because of the clients' behaviour or because of the situation. This situation could be out of their reach. Staff also reported to project themselves into the clients' feelings and hence, in some situations, felt their discomfort. Unease was the most expressed negative emotion (n=52, 15.38%).

The client becomes angry because of a misunderstanding. I repeat myself and hope she will understand, but she doesn't. It's an uncomfortable situation. (Participant 7 – Day 5)

Lastly, staff described feelings of irritation or **annoyance**. Reported causes were challenging behaviour, time pressure or practical constraints. Sometimes these situations were beyond the staff's reach causing them to feel powerless and frustrated. When comparing the themes 'annoyance' and 'unease', 'annoyance' was found to have a higher intensity. The client refuses to open his mouth. He always does this, until he has tasted a little and knows that it tastes good. I sing, play peek-a-boo, tell stories, make jokes. I feel powerless and try everything I have in store. Oh boy, how will I get this young man to open his mouth? (Participant 22 – Day 1)

Interaction quality

Diary excerpts were coded as telling something about the quality of the interaction if they provided an answer to the following question: 'What determines that staff considered the described interaction to be (not) of high quality?' (n=361, 21.67%). Six themes were identified that can be considered as dimensions of interaction quality, with Harmonisation and Return as overarching key dimensions.

Harmonisation

Staff seemed to strive for harmony, and did so on three levels. First, they indicated the interaction is perceived as of high quality when **contact was established**. Contact can be seen as an enabling factor: when staff succeeded in establishing contact, interaction could take place. Therefore also the maintenance of contact should be considered. After all, termination of contact will inevitably result in the termination of the interaction. To establish and maintain contact, staff adapted their interactional behaviours.

I go up to the client, who is sitting comfortably in her sofa, and say 'Good afternoon, are you all right?'. I get no reaction. She remains seated with her hand in front of her eyes. It remains silent. I come closer and kneel down to the same height as her. I rub her arm and ask her 'how is my friend today?'. She suddenly replies, in a sweet childish tone, "Yes, all good!" and makes a spontaneous attempt to get out of the sofa. (Participant 12 – Day 2)

Being connected, staff reported having individual contact with the client. This time spent individually could take the form of intimate one-to-one contact, having fun, or doing an activity, i.e. **being together**. When staff felt unable to give individual attention to the client, the main reason given was time constraints.

I asked K., who was standing near the kitchen, if he wanted to join me. He sat down opposite to me and I gave him some of my chips. K. was happy. He laughed and pulled my ponytail a bit. That is a sign of happiness, he is making a sort of 'joke' this way. He gave me the feeling that he is at ease with me. It was a moment between the two of us. (Participant 23 – Day 3)

Staff reported the ability to be sensitive to the clients' needs and their efforts to **identify and meet these needs**. They attentively checked in with the client and used strategies to address the (perceived) needs, often guided by experiential knowledge. 'Identifying and meeting needs' was the largest subtheme within 'Harmonisation' (n=94, 27.15%). In 49 fragments (52.13%) the interaction was perceived to be of high quality merely because of this sensitivity and responsivity. In the other fragments (n=45, 47,87%), however, the effect of the response to the client's needs seemed central as there were clues found hinting at a role for success or failure in determining the quality of the interaction. Therefore it was unclear what determined the interaction quality in these 45 fragments: the act of being sensitive and responsive or the effect of the response, i.e. an impression of success or failure.

Return

Staff reported several ideas related to the concept of 'return', i.e. getting something back. In this respect, staff first of all indicated that the interaction was perceived to be of high quality because it allowed them to express and adhere to their **values**: staff expressed their personal vision (the matter they consider important), put the client at the centre, empathised with the client's experience, gave the client a choice or respected the client's response (thus investing in the development of the client's autonomy).

First, I say it calmly so that she knows in advance what we expect from her. Then, when she asks me why this is not allowed, I explain it. I think it is important that there is clarity and that she understands why we expect this from her. (Participant 18 – Day 1)

Staff indicated that the interaction enabled the mutual relationship to (further) develop. This is recognised as **'relational gains'**, since the idea that the interaction offered opportunities for building

rapport led to the interaction being regarded as of high quality. Besides the interaction as a building block for relational development, interactions were also the display for 'artefacts' of rapport, such as mutual trust and shared routines.

I sing the song that I always sing before the care begins, which announces the start of the day and which she associates with me as a person. (Participant 20 – Day 2)

Next, staff suggested experiencing **personal recognition** as decisive for high quality interactions. This was described when they had the impression they were seen as an individual or recognised for their efforts.

The client's reaction made me feel that she recognised me as Suzy, her support worker, and that she was happy to see me. Or was glad I was around. (Participant 12 – Day 2)

Lastly, staff experienced the interaction (not) to be of high quality because of an impression of **success** or, negatively put, failure. This was perceived when staff succeeded in an activity, when they drew success from the client's positive behaviour, or when they were able to avoid a negative situation or an escalation of challenging behaviour. Strategies employed for avoiding a negative situation were, for instance, selecting the behaviour to react to ('ignoring') or using humour. Lastly, as mentioned before, staff's diary entries hinted for experiences of success or failure when being sensitive and/or responsive to the clients' needs. These fragments were only coded as 'Experiencing return – Success' when the experience of success or failure was conclusive.

Discussion

This study aimed to (1) describe staff's behaviours, thoughts, and emotions when in interaction with a client with severe or profound intellectual disabilities and (2) grasp staff's views on what characterises quality interaction. Staff employed in day-care or group homes filled in a five-day diary on their interactions with one client. Thematic analysis was performed to analyse the diaries.

The interactive situations described by staff portrayed a melting pot of behaviours, thoughts and emotions. They paint a picture of what goes on during staff-client interactions from the staff's perspective, both internally and externally. In the diary entries, staff reported on their behaviours during the interactions: they were reading cues and performing ad hoc adjustments. As such a notion of sensitive responsibility (Wilder & Granlund, 2003) shimmers through. The role of such a sensitive attitude has been extensively described earlier, for instance with regard to establishing rapport, building relationships or constituting quality interactions (e.g., Griffiths & Smith, 2016; Hostyn & Maes, 2009; Johnson et al., 2012; Martin et al., 2022; Simons et al., 2021; Tournier et al., 2022). In the diaries, staff reported to orient their behaviours towards the needs of the client and/or towards the connection with the client. With regard to the needs-oriented behaviours, staff reported providing Care and support, which is, of course, an essential part of their job. Beyond that, providing practical care and attuning to the clients' needs is also described to foster the development of the relationship (Johnson et al., 2012; Tournier et al., 2022). In the needs-oriented behaviours, principles from Positive Behaviour Support and Active Support can be recognised (Ockenden et al., 2014). For instance, with regard to Positive Behaviour Support, staff's reported Reinforcing, Securing and Guiding behaviours which can be recognised as proactive or reactive strategies. With regard to Active Support, the core idea 'Maximising choice and control' can be recognised in staff's intentions to provide opportunities for Identity development (Ockenden et al., 2014). With respect to the connection-oriented themes, 'Connecting' and 'Engaging' are apparent in Martin et al.'s Theory of Reconciling Communication Repertoires (2022): something grabs the staff's attention, which brings about a connection and opportunities to engage in activity or conversation, or just spend time together, to share the moment (Johnson et al., 2012). Furthermore, staff reported using a myriad of strategies to Adjust their interactive behaviours and foster understanding. This striving for adjustment is described by several authors (e.g., Griffiths & Smith, 2016; Hostyn & Maes, 2009; Johnson et al., 2012; Martin et al., 2022; Nagra et al., 2017; Wilder & Granlund, 2003). It is striking, however, that themes as central to interaction as 'Connecting' and 'Adjusting' are less reported than 'Engaging'. Possibly, connecting and adjusting are behaviours taking place naturally, or sub- or preconsciously, for a great

proportion of the participating staff, and are therefore reported less than the engaging itself, which may take more thought, generate more emotion, consume more time, and leave a more long-lasting impression. This does not necessarily mean these behaviours occur less often. As is discussed by Bradshaw (2001), staff's reported behaviours do not necessarily align with practice. However, if these behaviours are indeed sub- or preconscious, it may be of interest to develop training programmes that target these behaviours and aim to increase awareness.

Staff reported **thoughts** about the client and themselves. With regard to client-oriented thoughts, staff brought out their Experiential knowledge: the knowledge build up from earlier interactions. This brings in an aspect outside of the 'here and now'. Martin et al. (2022) refer to this knowledge as a source of inspiration when intending to reconcile communication repertoires. Further, staff described thoughts about searching for meaning behind the behaviours observed, similar to the 'ascription of meaning', described by Forster and Iacono (2008). Their practice seems to have something 'detective-like', as Engelhardt (2021) puts it. It is a matter of Interpretation, about forming hypotheses, which implies ever-present fallibility (Engelhardt, 2021). But, if staff are detectives, they are empathetic ones, who report taking the clients' perspective, experiencing understanding and compassion. In this way, thoughts and interactive behaviours melt together, with staff Interpreting, Empathising and Attuning with the client to better align and communicate, or as Griffiths and Smith put it: "Empathy is near the heart of unlocking the enigma of communication" (Griffiths & Smith, 2017, p. 112).

Besides thoughts oriented at the client, staff reported thoughts oriented at themselves. Staff reported a great amount of inner speech, i.e. the activity of talking to oneself in silence (Alderson-Day & Fernyhough, 2015). Inner speech is an important part of human self-reflection and linked to other self-related processes such as self-regulation, self-description, self-evaluation or self-concept formation (Morin, 2018). As such, the self-oriented thoughts reported by the staff are about Directing their own behaviour (e.g., making plans and self-motivation), Ad-hoc reflection (insights gained during the interactions) and their role as a professional. The thoughts about their role as a professional were

characterised by values and responsibilities, hence showing great resemblance with Kelchtermans' (2018) concept of Task perception. Despite its origins in teacher training, the concept is not unfamiliar to the field of support staff, where ideas such as sensitive responsibility (Wilder & Granlund, 2003), reconciliation responsibility (Martin et al., 2022), or skilled support (Beadle- Brown et al., 2021) are expressed, all giving substance to the concept of task perception.

Further on, **emotions** are at play during the interactions. This is in line with what Hostyn and Maes (2009) and Penninga et al. (2022) described. In the diaries, mostly Positive emotions were reported. Positive emotions are constitutive in building rapport, relationships and successful or positive interactions (Hostyn & Maes, 2009; McLaughlin & Carr, 2005; Vanono et al., 2013; Wilder & Granlund, 2003). After all, they foster the interaction partner's interest to re-engage in future interactions (Johnson et al., 2012), providing new opportunities to further the rapport, relationship or the way interactions proceed.

In the pursuit of high **quality interaction**, from the perspective of support staff, harmonisation and return are suggested to be overarching key dimensions. When Harmonising, staff are striving to adapt to the clients' communicative abilities to enable or maintain a communicative flow, or they are trying to identify and meet the clients' needs (whether personal, developmental or physical). When harmonising, staff can be seen as taking part in a dance. In their diaries, when aiming for harmonisation, they can be seen to co-create a performance: they take responsibility, get in touch, carefully align, and address the (perceived) initiatives or needs. Such an analogy on interaction has earlier been described by Adler (1997), with an emphasis on synchronicity and turn-taking, and further by Griffiths (2010), who saw the interaction partners' manoeuvring within the process of attuning, i.e. the partners' movement towards each other, symmetrically or asymmetrically, mentally and emotionally (Griffiths, 2010). In their diaries, staff reported to be harmonising not only with respect to their interactions, but also with respect to the clients' needs. This analogy should therefore be widened, as in practice harmonisation is pursued at a broader level, both connection- and needs-oriented. In this way, the pursuit of quality interaction can be placed within a broader pursuit of quality care. Moreover, interpersonal processes are at play during interactions.

For instance, in their co-created dance, the partners direct their own behaviours, remember (dance) moves, empathise with their partners' internal processes, internally vent frustrations, or become aware of their own emotions during the performance. Harmonisation can therefore be seen as a process of mutual alignment with the aim of contributing to the quality of the interaction as well as the quality of care, taking into account internal processes.

A second key dimension in the pursuit of quality interaction appeared to be the concept of 'Return'. Return is about the emotional idea of 'getting something back' and may take many forms and have various effects. Success, for instance, makes staff feel good, contributes to their job satisfaction, provides them with energy to continue their work or invest in new opportunities with the client (Penninga et al., 2022). Personal recognition, further on, is described as important in relationship building (Johnson et al., 2012). Staff also reported other forms of return, i.e. Relational gains and the ability to adhere to their Values. Regarding the former, spending time together provided opportunities to get to know each other and, hence, build rapport (Forster & Iacono, 2008; Penninga et al., 2022; Tournier et al., 2022) which is remarked and valued by staff. Regarding the latter, return may be experienced because one was able to adhere to what one believed in. Return is not a surprising element in interactions. Penninga et al. (2022), for example, discussed the theme 'Being meaningful to the other' and described how staff acknowledged that the feeling of making a difference made the interaction meaningful to them. However, it was unexpected that Return was such a multifaceted concept. It was also surprising that Return played such a central role in staff's perspectives on the quality of their interactions. Presumably the staff perspective speaks here: a committed dance partner is one who enjoys it.

When the diary entries are critically analysed, it is remarkable that little was said about having a shared influence on the interaction, taking the lead or taking turns. However, co-regulation appears as a core characteristic in building rapport (McLaughlin & Carr, 2005) and shaping interaction (Granlund & Wilder, 2006; Hostyn & Maes, 2009). Moreover, there seems to be only minimal reflection on personal attitudes, despite literature referring to the importance of, e.g., an atmosphere of openness, respect,

genuine interest and appreciation when striving for quality interaction (Vanono et al., 2013; Wilder et al., 2004; Wilder & Granlund, 2003). It is difficult to judge whether these topics, despite being omitted from the diaries, occur in practice. Possibly they are taken for granted and therefore not addressed in the diaries. Moreover, the diary did not explicitly ask about attitudes. Research that uses questionnaires or observations is perhaps better suited to follow-up this issue.

This study has been preregistered. In the interest of transparency, deviations from the preregistered plan are discussed and explained in detail here:

https://osf.io/uzmq7/?view_only=a371fec603a840719748b28068871d23.

The findings of the present study should be seen in the light of some limitations. Firstly, regarding data analysis, pre-defined categories were used within an otherwise inductive design to ensure the inclusion of the fundamental elements shaping the participants' perspectives, i.e. behaviours, thoughts and emotions. A fourth category was added to capture staff views on interaction quality. This pre-defined framework was fuelled by the research questions and was evident in the diary questions. The use of these categories provided different lenses through which to view individuals' experiences. Although the results may have been different without these pre-defined categories, their inclusion in the research design and analysis provided structure for the data-analysis. Second, the choice for a diary was made because of its potential to unravel individual, subjective experiences in a specific context and during a certain time period. This is in contrast to, e.g., questionnaires that tap on fluid but largely event-independent thoughts. However, one should apply caution generalising the findings, as (1) the results come from individual experiences and (2) a reporting of these experiences. Regarding the former, one should acknowledge that the diary data retrieved is only ever partial. In this respect, for instance, it is known that in interactions there is more sensory data coming at one individual than they can process (Griffiths & Smith, 2017; Sperber & Wilson, 1986) and, as Bradshaw (2001) indicated, it appears that it is not that straightforward for staff to accurately report on their behaviour. Together, this questions the extent to which participants have a full understanding of what is going on during interactions and of their own behaviour on which

they report on. Next, regarding the latter, one has to acknowledge that reflection is an inherent side-effect of filling in the diaries. After all, writing down your experiences entails becoming more aware of them (e.g., Välimäki et al., 2007). Moreover, the chances of reflection may have been increased by asking participants to fill in the diary at the end of the working day, thus reducing the burden of participation, but unintentionally increasing the chances of conscious processing and thus the plausible inclusion of eventindependent considerations. For these reasons, the authors cannot claim to have fully captured the behaviours, thoughts and emotions of staff as they occur 'in the moment'. In conclusion, however, this study has been successful in reporting the first-hand experiences of staff and contributing to the existing literature on staff-client quality interactions. After all, the staff gave an insight into their inner world of thoughts and feelings and described what determines interaction quality for them. The results of this study, together with the existing literature, can thus provide starting points for future (practice-oriented) research aimed at increasing interaction quality. One possible pathway could be staff training. The results of this study argue for the potential of including self-reflection as a means of raising awareness of the dimensions of interaction quality (that emerged from the current diary study or are reported in the literature), as well as the importance of ensuring not to alienate from practice and stay close to staff experiences, for example by creating space to discuss the aspect of 'return' or by embedding interaction quality within the framework of quality of care through the idea of harmonisation.

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14 (41.2)

±

	M (range, SD)	n	(%)
Age (years)	34.5 (20-60, 10.7)		
Gender			
Male		6	(17.6)
Female		28	(82.4)
Nationality			
Belgian		30	(88.2)
Dutch		4	(11.8)
Education			
Secondary education		7	(20.59)
University college - bachelor's degree		26	(76.47)
University - master's degree		1	(2.94)
Total working experience with target group (years)	11.8 (1.8-40, 9.82)		
Working experience in the organisation			
1 - 5 years		12	(35.29)
5 - 10 years		6	(17.65)
10 - 15 years		8	(23.53)
More than 15 years		8	(23.53)
Working experience in the group home			
1 - 5 years		21	(61.76)
5 - 10 years		7	(20.59)
10 - 15 years		4	(11.76)
More than 15 years		2	(5.88)
Employment rate			
70-85%		10	(29.4)
86-99%		10	(29.4)

Table 1

100%

Demographics staff

Table 2Demographics clients

	M (range, SD)	n	(%)
Age	48.8 (24-84, 16.5))	
Gender			
Male		18	(52.9)
Female		16	(47.1)
Nationality			
Belgian		30	(88.2)
Dutch		4	(11.8)
Intellectual disability			
Severe		23	(67.6)
Profound		11	(32.4)
Comorbidities			
Motor		11	(32.35)
Hearing		3	(8.82)
Sight		2	(5.88)
Hearing and motor		1	(2.94)
Sight and motor		2	(5.88)
None		15	(44.12)
Years visiting the service provider	r		
6 months - 5 years		3	(8.82)
5 - 10 years		2	(5.88)
10 - 15 years		7	(20.59)
More than 15 years		22	(64.71)
Years visiting the group home			
6 months - 5 years		8	(23.53)
5 - 10 years		7	(20.59)
10 - 15 years		7	(20.59)
More than 15 years		12	(35.29)

Table 3

Characteristics group home

	M (range, SD)	n	(%)
Amount of clients	9.94 (6-25, 3.51)	
Amount of staff	t of staff 5.79 (1-14, 3.2		
Service provided			
Day-care		5	(14.71)
Residential supported living		14	(41.18)
Day-care and residential supported living		11	(32.35)
Day-care, residential supported living and o	ther	4	(11.76)

Table 4

Overview of coded fragments and (sub-)themes

Categories and underlying themes	Coded fragments	% of category total	% of total
Total	1666		
Behaviour	577	100.00	34.63
Needs-oriented			
Providing care and support	64	11.09	3.84
Providing security	114	19.76	6.84
Providing guidance	89	15.42	5.34
Providing reinforcement	43	7.45	2.58
Providing opportunities for identity development	42	7.28	2.52
Connection-oriented			
Connecting	43	7.45	2.58
Engaging	139	24.09	8.34
Adjusting	43	7.45	2.58
Thought	390	100.00	23.41
Client-oriented			
Bringing out experiential knowledge	53	13.59	3.18
Interpreting clients' behaviour	135	34.62	8.10
Empathising	39	10.00	2.34
Venting	14	3.59	0.84
Self-oriented			
Directing one's own behaviour	59	15.13	3.54
Ad hoc reflection	33	8.46	1.98
Task perception	57	14.62	3.42
Emotion	338	100.00	20.29
Positive emotions			
Joy	91	26.92	5.46
Satisfaction	57	16.86	3.42
Peace	13	3.85	0.78
Relief	14	4.14	0.84
Connectedness	28	8,.8	1.68
Amazement	13	3.85	0.78
Negative emotions			
Concern	21	6.21	1.27
Confusion	13	3.85	0.78
Unease	52	15.38	3.12
Annoyance	36	10.65	2.16
Interaction quality	361	100.00	21.67
Harmonisation			
Establishing contact	30	8.31	1.80
Being together	69	19.11	4.14
Identifying and meeting needs	98	27.15	5.88
Return			

Expressing values	58	16.07	3.48
Relational gains	22	6.09	1.32
Personal recognition	18	4.99	1.08
Success	66	18.28	3.96