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Conceptualizing attunement in dementia care: a meta-ethnographic review

Julie Kolbe Krøier ^a, Orii McDermott ^b and Hanne Mette Ridder ^a

^aDepartment of Communication and Psychology, Aalborg University, Aalborg, Denmark; ^bFaculty of Medicine & Health Sciences, University of Nottingham, Nottingham, UK

ABSTRACT

Background: Engagement in non-verbal communication positively influences well-being of persons with dementia, but requires good communication skills from caregivers. An important element of non-verbal communication is attunement, but even though communication is essential for persons experiencing severe cognitive decline, attunement has not been systematically examined in dementia care.

Method: A meta-ethnographic review was conducted to investigate the concept of attunement in dementia care.

Results: Six qualitative studies met the inclusion criteria. Three interwoven themes formed a line-of-argument describing attunement with persons with dementia; (1) Taking the perspective of the person with dementia and the importance of person-centred approach, (2) Developing understanding through an empathic approach and (3) Using musical parameters in the interaction: Tempo adjustments, timing and the use of music.

Conclusion: The results bring new knowledge about reciprocity and musical elements in non-verbal communication in dementia care and how these elements potentially increase well-being of persons with dementia.

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Attunement; dementia; person-centred care; meta-ethnography; non-verbal communication

Introduction

Communication and social interaction are essential for human beings and are ways of sharing meaning and of creating a sense of connectedness, comfort and well-being (Allan & Killick, 2014). As a consequence of neurodegeneration in dementia, the ability to communicate becomes increasingly challenged as the disease progresses (Haak, 2002), with the lack of communication leading to social isolation, and further, to an overall situation for the person where essential psychosocial needs may not be met (Brooker, 2006; Kitwood, 1997). The task of meeting psychosocial needs of the person with dementia requires good communication skills from caregivers who must be aware of other ways of communication than verbal language (Alsawy et al., 2017; Courcha, 2015). The shift from verbal language to a focus on non-verbal communication is described as important in order to ensure adequate social interaction between the person with dementia and their caregivers (Alzheimer's Society, 2014). Non-verbal

CONTACT Julie Kolbe Krøier  jukk@hum.aau.dk

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communication often happens spontaneously, but is difficult to describe due to its volatile, complex nature (Mandy & Gail, 2007). The components of non-verbal communication include gestures, facial expression, tone of voice, eye gaze and sounds, and are characterised by turn-taking, imitation and the speed of actions taking place between the communication partners (Knapp et al., 2013; Stern, 1985). According to Ellis and Astell (2017), all communication contains non-verbal fundamentals, and these do often remain intact for persons with dementia as they do not imply abstract thinking (Knapp et al., 2013).

Engagement in non-verbal communication highly influences well-being of the person with dementia, and the person will endeavour to find ways to express him- or herself and to sustain a relationship with others (R. Ward et al., 2008; Windle et al., 2019). It is therefore important to define non-verbal, psychosocial interventions for caregivers to apply in their daily practice in order to improve psychological, social and everyday functional abilities of people with dementia (McDermott et al., 2019). In a mixed-methods systematic review of 15 studies, Alsawy et al. (2017) found that one strategy of interpersonal characteristic was “being” in communication (rather than “doing” communication) “whereby they [the nurses] attuned to patients’ feelings and took on their perspectives” (p. 1793). In a consensus statement that included 57 participants from eight countries, all agreed that in group music therapy for persons with dementia, individual musical attunement must be used. In this study, musical attunement was described “as the process whereby the therapist sensitively and musically responds to a client’s musical and non-musical expression in order to ‘tune in’ empathically” (Janus et al., 2020, p. 7).

The term attunement is often used to describe and understand how non-verbal communication unfolds (Hart, 2016). In developmental psychology, attunement is a core concept describing infant and caregiver interaction (Papousek, 1979) and used to illustrate non-verbal communication and interplay between two or more persons (Bentzen & Hart, 2015; Stern, 1985). Attunement plays an essential role in adult psychotherapy, although defining the features of attunement is challenging (McCluskey et al., 1997). In clinical settings, attunement elucidates how two or more persons share inner emotional states when interacting (Briggs, 2015; Hart, 2016; Holck & Geretsegger, 2016; Trondalen & Skårderud, 2007). In the theory of *affect attunement*, the developmental psychologist Stern (1985) used attunement to describe non-verbal processes of relating. This theory is based on observations of interplay between primary caregiver and infant, but has subsequently been used to illuminate the dynamic processes in psychotherapy and non-verbal communication with various populations (Marucci et al., 2018; Myklebust & Bjørkly, 2019; Parsons, 2018).

As the concept, attunement is applied in various professional fields, the aim of this study was to explore how attunement is used and understood in dementia care. Greater knowledge about how caregivers and persons with dementia attune to each other may potentially provide tools to apply in daily dementia care.

Method

We carried out a meta-ethnographic review of original studies. Meta-ethnography (Noblit & Hare, 1988) is a systematic review method used to compare concepts in both quantitative and qualitative studies to reach a new holistic understanding of a certain

phenomenon. Most qualitative syntheses are based on meta-ethnography, which according to Paterson (2012) is the most widely used approach in health-related research. Where the purpose of quantitative meta-analyses is to aggregate studies for prediction and generalizations, meta-ethnography aims to create novel interpretations that enrich human discourse by “making a whole into something more than the parts alone” (Noblit & Hare, 1988, p. 28). With its interpretive and context-sensitive approach, meta-ethnography is suitable for examining human interaction and an appropriate method for generating a holistic understanding of complex phenomena (Bondas & Hall, 2007; France et al., 2015). The review is a part of an ongoing four-year study: Person-Attuned Musical Interaction in Dementia Care funded by the VELUX foundation and Alzheimers Forskningsfonden which aims to explore and conceptualise non-verbal communication in dementia care.

Meta-ethnography has evolved since its beginning, and guidelines on how to sample studies for inclusion has been developed. However, the reporting quality of meta-ethnographic reviews often lacks detailed descriptions of analysis and synthesis (Hannes & Macaitis, 2012). To enhance rigour and transparency of this review, we applied the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) checklist for reporting the results (Tricco et al., 2018).

Search strategy

Electronic searches on SCOPUS, CINAHL, PsycINFO, PUBMED and EMBASE were conducted in June 2018. Our search terms were “nursing home,” “long term care facilities,” “dementia,” “musical interaction” and “caregivers” all combined with “attun*” in any part of the article (Krøier, 2019). Studies meeting the following criteria were included: Study participants were described to have dementia and were living in a nursing home or long-term care facility. The term “attunement”, “attune” or “attuning” was used in the article and the primary aim of the study was to examine the interaction between caregiver and the person with dementia. The term “caregiver” broadly included family caregivers, volunteer caregivers, professional caregivers, care providers and caretakers as long as the study gave perspectives on communication and interaction with the person living with dementia. The original articles were in English and published in peer-reviewed journals. The first author conducted the search independently but held discussions with co-authors throughout the process to reach consensus about the final decision of full-text appraisals.

Quality assessment

The included studies were evaluated for their theoretical elaboration and practical application of the term attunement and assessed for the thoroughness applied in the elaboration of the term attunement. As critical appraisal with the use of standardized assessment tools often falls outside the scope of qualitative reviews, these are only conducted if appropriate according to the PRISMA-ScR¹ Checklist (Tricco et al., 2018). Our focus was on how the studies used and understood “attunement” rather than on the outcome of the studies. We therefore did an assessment where we differentiated between four levels of thoroughness in methodological rigour and depths of synthesis; (1) studies mentioning attunement; (2) studies using the term attunement; (3) studies describing, exemplifying

and using attunement as a central concept; or (4) studies focusing specifically on attunement and exploring it theoretically or methodologically.

Data extraction and the synthesis process

We repeatedly read the studies to identify and extract core themes from the studies. In meta-ethnography, the concept of first- and second-order constructs is used to distinguish data (Toye et al., 2013). First-order constructs are the participants' *common-sense* interpretations in their own words, and second-order constructs are the researchers' interpretations based on first-order constructs. The *data* collected for meta-ethnography are second-order constructs and these are then abstracted to develop third-order constructs which are the researchers' interpretations of the original authors' interpretations. Tables for first-order constructs (caregivers' quotations), second-order constructs (authors' interpretations) and third-order constructs (reviewers' interpretations) were produced in the data extraction phase of the study. The purpose of carefully examining used concepts, themes and metaphors of the studies, is to "translate" these to each other. The concept of translation is central in meta-ethnography and means to compare the main concepts and metaphors (Noblit & Hare, 1988). The relationship between the studies can either be reciprocal (similar or analogous), refutational (in opposition), or form a line-of-argument (illuminate different aspects of a phenomenon).

Third-order constructs were divided into themes, concepts and metaphors and were compared with each other to discover how they were interrelated (France et al., 2015; Noblit & Hare, 1988). The concepts, themes and metaphors were then grouped and revisited to ensure the original meaning.

Reflexivity and pre-understanding

We are aware that our gender, age, cultural and professional backgrounds influence our interpretations of attunement quoted by other researchers. We have all worked as clinical music therapists in dementia care and taught caregivers how to apply musical interaction in care situations for several years. Based on our clinical knowledge, we evaluated our experiences with the published literature to explore our understanding of attunement and our findings. In order to validate the results, we presented the initial findings to interdisciplinary groups consisting of international researches in dementia care. Together with the participants in the groups, we reflected critically on the evaluation method, and the narratives and metaphors that were developed through the process. The discussions consequently served as a way to gain new knowledge and perspectives on the results and enhance validity.

Results

Included studies

A total of 129 studies were screened and the final dataset included six studies (see Figure 1).

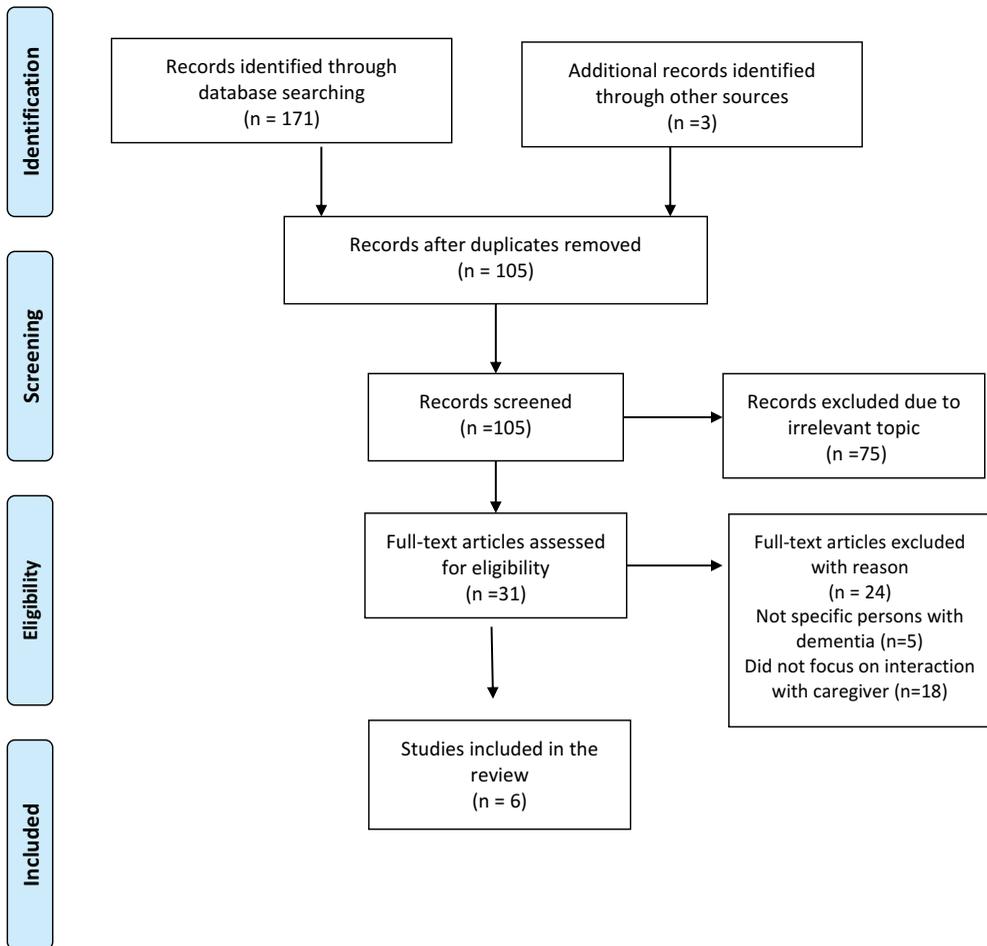


Figure 1. Flow diagram of the search process.

The characteristics of the included studies are summarized in [Table 1](#). In total 113 caregivers participated in the studies, including professional, volunteer, and family caregivers. None of the studies focused solely on attunement, but all explored interactions between caregivers and persons with dementia.

Based on the first and second-order constructs, we formulated third-order constructs and further synthesized these to three interwoven themes. The translation process is illustrated in [Table 2](#).

The synthesis of the revealed third-order constructs led to the formulation of a line-of-argument consisting of the following three interwoven themes; (1) Taking the Perspective of the Person with Dementia – the Importance of the Person-Centred Approach. (2) Developing Mutual Understanding through an Empathic Approach (3) Using Musical Parameters in the Interaction: Tempo adjustments, Timing and the use of Music. In the following, we present each theme and integrate central citations to illustrate the themes and subthemes.



Table 1. Description of the included studies.

Author, year, country	Aim	Participants	Context	Study design	Method of analysis	Attunement	Assessment
1. Palmer (2013) USA	To explore how family caregivers care preserve personhood of the person with dementia.	15 family caregivers	Long term care facility	Interviews with family	Hermeneutic phenomenology	Family caregivers attune to the personhood of the person with dementia.	*
2. Häggström et al. (1998) Sweden	To explore skilled carers' ways of understanding the person with dementia.	5 caregivers	Dementia Care unit	Observations and interviews	Interpretative analysis	Affect attunement as a way for the caregiver to understanding the person with dementia.	****
3. Isaksson, Åström, and Graneheim (2012) Sweden	To illuminate professional caregivers' reflections on managing residents' violent behaviour in nursing homes.	41 female caregivers	3 nursing homes	Interviews	Qualitative content analysis	Attunement is an ability to interpret and react to the residents' communicative signs.	**
4. Jost et al. (2010) Germany	To explore how volunteers, succeed in tuning into the timing of the person with dementia.	6 volunteer caregivers	Nursing home	Video-observations	Grounded Theory	Attunement is a temporal phenomenon and describes the timing between the person with dementia and the caregiver.	****
5. Ward, Vass, Aggerwall, and Cybyk (2008) UK	To explore patterns of communication in a dementia care unit.	38 staff members with dementia	Dementia Care unit	Video-observations, interviews, observations diaries	Discursive and comparative analysis	Attunement is an emotional process and the person with dementia attunes to the caregivers as well.	*
6. Coates and Fossey (2016), UK	To increase the understanding of care assistants' self-efficacy.	8 female caregivers	Nursing home	Interviews	Interpretive phenomenological analysis	Attunement is an emotional, reciprocal phenomenon that implies an ability to understand the person with dementia.	***

Table 2. Translation of second-order constructs to third-order constructs and overarching themes.

Resource	2nd-Order Construct(s)	3rd-Order Construct	Theme
1,2,3,4,5,6	Attunement is grounded on Kitwood's work on person-centered care: Caregivers attune to the personhood and life-history of the person with dementia.	Attunement is based on Kitwood's person-centred care.	Taking the perspective of the person with dementia- The importance of person-centered care.
1,2,4,5,6.	Attunement implies the ability to take the perspective of the person with dementia and act according to the physical and emotional needs of the person.	Attunement requires that the caregivers is able to take the perspective of the person with dementia.	
1,2,3,4,5,6	By attuning the caregiver is able to value the emotional context in the relation with the person with dementia. The caregivers attune emotionally to the person with dementia as a way to understand the person.	The caregivers involve themselves emotionally when attuning to the person with dementia.	Reaching understanding by involving yourself emotionally
2,3,4,6	Attuned interactions between caregiver and the person with dementia helps the person with regulating arousal.	Regulation as an outcome of attuned interactions.	
2,3,4,5,6	Attunement forms emotional reciprocity between the person with dementia and the caregiver. The persons with dementia are attuning the moods and feelings of the caregivers.	Attunement creates reciprocity and mutuality between with caregiver and the person with dementia.	
1,2,3,4,6	The caregivers attune the tempo of their actions to match the tempo of the person with dementia. Attunement requires a sense of timing Tuning into the timing of another person is a way of creating understanding and emotional closeness.	Attunement is created by tempo adjustment and timing between the caregiver and the person with dementia.	Using musical parameters in the interaction: Tempo adjustments, timing and the use of music.
1,2,3,4,5,6	The caregivers attune the way they use their voice to match the emotional needs of the person with dementia. Singing together is a successful trigger of synchronously tuning between caregiver and the person with dementia.	The use of music and/or vocalization can enhance attunement.	

Taking the perspective of the person with dementia – the importance of person-centred approach

All included studies referred to the person-centred approach defined by Kitwood (1997) (five studies) and Brooker (2006) (one study). The person-centred approach in the articles was described as an understanding of the person with dementia, where focus is on the psychosocial needs of the individual (Kitwood, 1997). Seeing the person with dementia as a unique person with personal preferences and feelings is a fundamental precondition for one's interaction to the person (Häggström et al., 1998; Palmer, 2013; R. Ward et al., 2008). A genuine interest in the person is a core element of person-centred care and is also essential for attunement: "Fine attunement is possible only if the helper understands the focus of the person with dementia and if the helper

responds to the initiatives of the person with dementia” (Jost et al., 2010, p. 441). When the caregivers applied attunement in the interaction with the persons with dementia, their aim was to take the perspective of the person. “She had an understanding of wholeness and meaning of her caring performances as necessities for fulfilling the residents’ intention in certain situations.” (Häggström et al., 1998, p. 262).

We found that personhood was regarded as a central component of the person-centred approach. In order to understand the person with dementia, the caregivers must be aware of the history, wishes and relations of the individual. Coates and Fossey (2016), Jost et al. (2010), and Palmer (2013) described how caregivers attune to personhood in order to fulfil the person’s needs: “The caregivers were attuned to the needs, desires, moods and concerns of their family members with dementia; thus, they were attuned to personhood” (Palmer, 2013, p. 224). Working with personhood involved acknowledging the needs and life story of the individual. It is a term that covers various aspects of the person, and requires that the caregiver is attentive and have the ability to interpret the behaviour of the person (Häggström et al., 1998; Palmer, 2013).

The included studies all mentioned the person-centred approach; however, the person-centred approach to care was not a concept that the caregivers were conscious about and used themselves. Person-centred care was thus a second-order construct applied by the researchers in the included studies: “On reflection, it was striking that whilst these elements recurred throughout the narratives, the commonly used term ‘person-centred care’ featured only once; thus, rather than solely constituting a phrase, the experiences and attitudes of this group resonated with the underlying principles of this approach” (Coates & Fossey, 2016, p. 12). This indicates that even though the person-centred approach to care was not an integrated concept in the caregivers’ vocabulary, they still performed it. It might also indicate that person-centred care is a very wide concept and that there is a need for clarification of the concept and its implication for caregiving.

Developing mutual understanding through an empathic approach

Care work is emotional work. We found that attunement was referred to as a way of being together and an approach the caregivers apply when interacting with the person with dementia. This understanding of attunement was used for both trained and untrained caregivers and family caregivers. According to Coates and Fossey (2016), Palmer (2013), and R. Ward et al. (2008), attunement requires the caregivers’ emotional involvement when they interact with the person. Care work was described as deeply emotional work, and to understand and attune to the person, emotional openness and awareness was central (Coates & Fossey, 2016). “Seemingly valuing the emotional content in the relation with the residents as a prerequisite for understanding them” (Häggström et al., 1998, p. 254). “We can see them ... emotionally we can, you know what they want like that” (Coates & Fossey, 2016, p. 7). When the caregivers attuned to the person with dementia, their verbal language and behaviour changed and they focused on acknowledging the person’s emotions as a way to meet psychosocial needs.

According to Häggström et al. (1998) and Jost et al. (2010), attunement is a process that guides the caregiver to an understanding of the person, their feelings, and needs. When applying attunement, the caregivers used emotionally loaded words, and actions such as singing, laughing and seeking physical contact in a timed structure (Häggström et al., 1998; Isaksson et al., 2013; Jost et al., 2010). For the caregivers to be able to

involve themselves emotionally, it was essential that they felt safe in their working environment and that they were acknowledged professionally. R. Ward et al. (2008) stress the importance of acknowledging the emotional aspect of care work when developing high-quality dementia care. "In this gendered field of employment, the emotional dimension of dementia care is typically overlooked, and receives little in the way of formal support, but the *emotional work* of care staff is crucial to what they do, not least because it enhances and supports communication" (R. Ward et al., 2008, p. 647). If the emotional dimension to care work is not acknowledged and articulated, it may become difficult for the caregivers to involve themselves emotionally, and attuned interactions where the person with dementia experiences meaningful contact and is able to express themselves might not take place (Coates & Fossey, 2016; R. Ward et al., 2008).

Reciprocity between the person with dementia and caregiver. When attunement happened between the caregiver and the person with dementia, it created a feeling of reciprocity that could diminish isolation for the person and be deeply pleasing for the caregivers (Coates & Fossey, 2016; Häggström et al., 1998; Jost et al., 2010). Reciprocity also went the other way, and the caregiver might experience the negative emotions that the person with dementia encountered, which could be stressful for them (Coates & Fossey, 2016; Isaksson et al., 2013). "He gets quite distressed, it's quite distressing, when you hear him" (Coates & Fossey, 2016, p. 7). The feeling of reciprocity can serve as a guideline that caregivers can apply when attuning to the individual. When the caregivers experience a positive relational interaction with the person with dementia, the person might experience the same.

The moment of reciprocity between the person with dementia and the caregiver was characterized by shared focus and equality (Coates & Fossey, 2016; Häggström et al., 1998; Jost et al., 2010). The professional roles of helper and receiver dissolved, and an intersubjective atmosphere was created between them. The reciprocity happened through finely attuned non-verbal communication where the caregiver gave time for the initiatives of the person with dementia. "Mutuality means that the caregiver and client take turns in their interaction and activities, thereby avoiding the helpers becoming much more active than themselves" (Jost et al., 2010, p. 411). When the moments of reciprocity and mutuality happened, central psychosocial needs of the person with dementia were met, and communication became easier.

It was not only the caregiver who attuned to the person living with dementia. The person with dementia also attuned to the caregivers. "Clients were surprisingly good at tuning into the caregivers' initiatives and activities and thus promoting the helper's continuity" (Jost et al., 2010, p. 442). The reciprocal dimension of attunement was described by R. Ward et al. (2008), who stressed the importance of the way the caregivers approach the person with dementia. The persons attuned to how they are met: "When we come out of the office happy, I don't know how to say it but the resident can sense, [can] pick up on you. . . . Especially on this unit, [we] need to be the happy staff [because] people will really sense it" (R. Ward et al., 2008, p. 640). Attunement is a mutual phenomenon taking place between two or more persons and their emotional states influence the dynamic processes between them.

Using musical parameters in the interaction: tempo adjustments, timing and the use of music

Tempo and timing. Even when the caregiver was not using music, there are musical elements in their interaction with the person with dementia. Adjustment of tempo when interacting was a central element of attunement according to Jost et al. (2010), Häggström et al. (1998), and Jost et al. (2010) described attunement in dementia care as: "... responding to the initiatives of the other person, adjusting one's own speed and refraining from too much control of the activities and the stimuli" (p. 442). The temporal adjustments in the interaction between two persons is referred to as timing. Coates and Fossey (2016), Häggström et al. (1998), Isaksson et al. (2013), and Jost et al. (2010) described timing as a crucial aspect in attunement. Timing related to the extent to which the caregiver succeeds in matching the tempo of the person with dementia (Jost et al., 2010). For attunement to be successful, the caregivers have to be attentive and adjust their tempo to match the person. "... [H]elpers are often too fast, which means that they are either faster than the person with dementia or faster than the person with dementia can process information" (Jost et al., 2010, p. 441). This temporal aspect of attunement is essential (Häggström et al., 1998; Isaksson et al., 2013; Jost et al., 2010).

Tempo adjustments seemed to relate to taking the perspective of the person with dementia. When caregivers succeed in adjusting their tempo to the person, a feeling of reciprocity is created (Jost et al., 2010). Adjusting tempo and timing also depended on the caregiver's flexibility and willingness to change activity, letting go of control and instead carefully observing and listening to the person (Häggström et al., 1998; Jost et al., 2010). Leaving space for the initiatives of the person with dementia can be a guideline for enhancing moments of attunement between caregiver and the person (Coates & Fossey, 2016; Häggström et al., 1998; Jost et al., 2010). The caregivers must be cautious not to overload the person with information and parallel activity as this can overstimulate and prevent the reciprocity of attunement to happen (Jost et al., 2010). Turn-taking was described as a method that can help caregivers adjust tempo and involve the person with dementia in a given task (Häggström et al., 1998; Jost et al., 2010).

The use of vocalization and music. The caregiver's use of voice and music can be a successful way to attune their interaction to the needs of the person (Häggström et al., 1998; Isaksson et al., 2013; Jost et al., 2010; Palmer, 2013). Häggström et al. (1998) described how the caregivers' emotional involvement are expressed through their vocal initiatives: "... her vocal behaviour was very intense and clearly conveyed an emotional message for those for whom she had warm feelings" (p. 261).

Vocal behaviour can furthermore be used as a way to induce positive emotions in the person, if the caregiver assesses it to be a relevant way of attuning to the persons' needs (Häggström et al., 1998; Jost et al., 2010; R. Ward et al., 2008). By using the voice with sensitivity, the caregivers attuned to the needs of the person and established contact which could increase compliance in difficult care situations; "The tone of your voice [is important] because he doesn't respond to a lot of stern" (Palmer, 2013, p. 227).

Five of the included studies mentioned music as a relevant interaction that can enhance attunement between the caregiver and the person with dementia. Jost et al. (2010) described how music can be a fruitful way to trigger synchronicity and attunement between the person with dementia and the caregiver. Häggström et al. (1998), Isaksson

et al. (2013), and Palmer (2013) described how the caregivers spontaneously use music as a way of acknowledging the person, promoting compliance, and redirecting away from violent behaviour.

Discussion

The aim of the current paper was to explore attunement in dementia care as a way to gain greater knowledge about non-verbal communication between the caregiver and the person with dementia. Through a meta-ethnographic review, we identified six studies that used the term attunement. The results presented experiences with attunement and understandings of the term from interviews with caregivers and observations of the interaction between a caregiver and the person with dementia. Attunement was described as a dynamic process where the caregiver and the person with dementia reach out for each other in an attempt to communicate. The caregiver intuitively interprets the actions of the person and synchronizes her own actions to the person. Attunement is thus characterized by a match between the expressions and behaviours of the person with dementia and the caregiver.

We found three interwoven themes that create a line-of -argument conveying the meaning of attunement in dementia care presented in the included studies. Seeing the person-centred approach to care (theme 1) and empathy as ways of developing increased understanding (theme 2) has been stressed previously in regard to dementia (Brooker, 2006; Feil, 1982; Kitwood, 1997), but also as a general way of understanding personal growth (Rogers, 1961). According to Rogers (1961), the essence of psychotherapy seems to be “a unity of experiencing” (p. 202) which is an experience *between* client and therapist and the height of personal subjectivity. He coined the term *positive unconditional regard*, meaning an outgoing positive feeling without reservations and evaluations towards the client, which is a term underpinning person-centred theory. The person-centred approach is by Rogers based on the comprehensive resources for self-understanding in each individual. These are resources that can be tapped “if a definable climate of facilitative psychological attitudes can be provided” (Rogers, 1980, p. 115). In this study, we found that the person-centred approach to care was not a concept used by caregivers, although they performed such care. We suggest that this indicates a need for clarification of the concept and its implication for caregiving. Roger’s theory is complex and can be challenging to understand. This means that caregivers must be supported by a working environment where the person-centred approach to care is learned through practice and persistently identified, verbalised and reflected upon.

Awareness of communicative musicality as a way to strengthen attunement

This study stresses the significance of tempo, timing and dialog (theme 3) as a precondition for fine-attunement between caregiver and the person with dementia. Increased awareness of musical elements in the communication between the caregiver and the person with dementia brings new aspects to the understanding of attunement in dementia care (Häggström et al., 1998; Jost et al., 2010; Palmer, 2013; R. Ward et al., 2008). Tempo and timing are musical parameters described by Malloch and Trevarthen (2009) as core components of communicative musicality. Communicative musicality is an innate

capacity that makes human beings able to take part in non-verbal interplay signified by timing, dynamic patterns of sounds and the feeling of pulse from birth (Malloch & Trevarthen, 2009). The capacity to communicate through musical elements stays intact despite the cognitive degeneration caused by dementia (Jacobsen et al., 2015; Kraus & Slater, 2016; Ridder, 2003). The majority of the included studies described how the use of music, rhythm and singing enhanced attunement between the person with dementia and the caregiver (Häggström et al., 1998; Isaksson et al., 2013; Jost et al., 2010; Palmer, 2013). The imbedded elements of synchronization in musical activities illustrate how music can support attunement.

The way the caregiver attunes to the expressions of the person with dementia impacts the relational quality and intersubjectivity between them (Coates & Fossey, 2016; R. Ward et al., 2008). Stern defines the emotional qualities of an action as forms of vitality (Stern, 1985, 2010). Forms of vitality can be described with musical terms such as *crescendo* or *accelerando*; they are highly dynamic and expressed as a relationship between time and intensity. When the caregiver attunes her actions to the person with dementia, she matches the vitality forms of the person. By doing this, a sharing of inner feelings takes place (Trondalen & Skårderud, 2007).

Implications for practice

We found that attunement is described as a dynamic process that many caregivers perform intuitively. In a moment of attunement, the caregiver and the person with dementia are aiming for creating reciprocity and connectedness between them. We find it important to stress that the responsibility for the interaction is not on the person with dementia, but on the caregiver and, therefore, in a wider perspective, on colleagues, leaders and health-care politics. Attunement aligns with an understanding where emotional needs are addressed and addressing these may be demanding for caregivers. The emotional stress level of caregivers is directly associated with care recipient depression and agitation, and the caregivers are potentially at risk of stress and burnout (Ridder, 2017). Compassion fatigue is one form of burnout, and it is important for caregivers who help others to start by helping themselves (Figley, 2002). To be supervised on how to work with attunement in the frame of person-centred care may help caregivers. This may positively impact self-reported self-efficacy and prevent burnout (Palmer, 2013). Regular supervision and acknowledgment from colleagues and management could be a way to facilitate attunement and maintain a good psychological working environment for the caregivers (Coates & Fossey, 2016; Jost et al., 2010). The use of drama, music and art might furthermore enhance awareness of the personhood and foster relationship between caregivers and persons with dementia (Berdes & Eckert, 2007; Heliker, 2004; Kontos & Naglie, 2007; Tischler et al., 2019).

Attunement can be seen as a metaphor for how the caregiver and the person with dementia are interacting with each other aiming for mutual understanding. When attunement takes place between the person with dementia and the caregiver both are equal and intending to respond to the needs and initiatives of the other. Attunement may also be related to other forms of arts, where interactions take place, which would broaden the understanding of the concept. In live performances such as dance, theater plays and concerts, attunement takes place between the audience and the performer. The

performers are aware of the response from the audience and adjust their artistic expressions in order to affect the spectator in an intended way. According to a report from the World Health Organization and a review published in the *Journal Arts & Health*, the arts may help build social cohesion and support emotional and social skills by facilitating empathy, trust and social engagement, and produce more cooperative relationships (Fancourt & Saoirse, 2019; M. C. Ward et al., 2020). The reciprocal process between performer and spectator may have parallels to the interaction between caregiver and person with dementia. A dance takes place between the two, and each of them attunes to the other in order to make the interaction become mutually meaningful.

Strengths and limitations

This meta-ethnographic review examined the unstudied area of attunement in dementia care with the aim to integrate and interpret studies beyond aggregation (Thorne, 2017). With the line-of-argument, we have presented an understanding of attunement targeted persons with dementia living in nursing homes. In order to validate the results from the analysis, these were presented at different stages of the research process to interdisciplinary groups. We discussed and shared our results to create transferability and avoid opacity for which meta-ethnography has been criticized for (Hannes & Macaitis, 2012; Paterson, 2012). We are, however, aware that we speak from the position of music therapy where attunement is a commonly used metaphor (Wigram et al., 2002, p. 25). We present a positioned understanding, not a generalisable definition of attunement in dementia care.

Another challenge is our use of concepts and terms in the review. The terms used in the synthesis contain intrinsic ambiguity and can be interpreted in numerous ways. This aspect is a common challenge in exploring non-verbal communication and translating the interactions into words. We have attempted to make our research process transparent and aimed for creating a deeper understanding, but it is up to the readers to appraise whether the results are meaningful in their particular context.

Methodological approaches were continuously monitored to ensure a result as consistent and reflexive as possible; though limitations are acknowledged. Including search terms as “non-verbal communication” might have confined the search to more appropriate literature. We were, however, interested in focusing on the use of the specific term attunement and did therefore not include search term related to social interaction. Limitations of this review include the small number of included studies in the synthesis. A higher number of studies might have been reached by including book chapters and other languages than English. In addition, we included studies with volunteer caregivers, trained caregivers and family caregivers. There might be differences in how the different caregivers relate to the person with dementia.

This meta-ethnographic review highlights the need for further research to develop knowledge on attunement in dementia care. There is a need for examining the concept from the perspective of the person with dementia, especially when the results suggest an understanding of attunement as a reciprocal phenomenon. Understanding this dimension with persons living with the condition, may function as a way to ensure person-centred care. To examine the potential effect of working with attunement in the daily

care, participatory action research that gives a voice to the caregivers and persons with dementia is needed (Dowlen et al., 2018).

Conclusion

In this meta-ethnographic review, we have synthesized findings from six studies where the term attunement was used in dementia care. Attunement in dementia care was understood as a dynamic process between the caregiver and the person with dementia, and our line-of-argument consisted of three interwoven themes elucidating attunement. First, the process of attunement is linked to the person-centred approach to care. Second, attunement is an emotional phenomenon where the caregiver relates to the needs and emotions of the person with dementia. Third, adjustments in tempo and timing within the interaction between the caregiver and the person with dementia is essential for attunement to happen. The results from the review might add to the knowledge base about non-verbal communication in dementia care and hereby potentially improve wellbeing for persons with dementia.

Note

1. PRISMA-ScR: Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews.

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ORCID

Julie Kolbe Krøier  <http://orcid.org/0000-0002-9254-208X>

Orii McDermott  <http://orcid.org/0000-0003-4685-3490>

Hanne Mette Ridder  <http://orcid.org/0000-0002-3204-5997>

Statement of ethical approval

The study was registered at The Danish Data Protection Agency through Aalborg University. Throughout the process, we followed and integrated the ethical principles from The Danish Music Therapist Association and The Danish Code of Conduct for Research Integrity.

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