The Role and Function of Body Communication in Physiotherapy Practice: A Qualitative Thematic Synthesis

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ABSTRACT

Communication is essential to physiotherapy practice. While verbal communication has been a primary focus in research, less is known about body communication. *Body communication* refers to communication achieved by means other than words, such as touch, eye contact, prosody, and proxemics. This review aims to provide detailed knowledge of the roles and functions of body communication in physiotherapy practice and identify areas for future research. We undertook a systematic search and thematic synthesis of published qualitative literature in October 2022. Four databases were searched with results screened to identify articles providing insight into the roles and functions of body communication. Quality appraisal of included studies was completed. Thematic synthesis was used to generate findings. Thirty-three studies met the inclusion criteria. Four themes were constructed to reflect the roles and functions of body communication in physiotherapy practice: conveying the physiotherapist's attention and interest; enabling patients to contribute to care; guiding physiotherapy intervention through bodily dialogue; and building the therapeutic relationship. The findings demonstrate how body communication shapes the therapeutic process and how sensitive and responsive body communication supports a more reciprocal and person-centred approach to care. Research is needed to obtain more in-depth and nuanced accounts of body communication to support the clinical application of findings.

Good, C. H., Bright, F. A. S., & Mooney, S. (2024). The role and function of body communication in physiotherapy practice: A qualitative thematic synthesis. *New Zealand Journal of Physiotherapy, 52*(1), 35–51. https://doi.org/10.15619/nzjp.v52i1.338

Key Words: Communication, Non-verbal, Physiotherapy, Thematic Synthesis, Touch

INTRODUCTION

Communication is an integral part of all aspects of healthcare practice (Street et al., 2009; Vermeir et al., 2015). Communication is fundamental in establishing and maintaining a therapeutic patient–clinician relationship (Ha & Longnecker, 2010), supporting engagement (Bright et al., 2018), enabling education (Bensing et al., 2001), and providing effective care (Mauksch et al., 2008). In physiotherapy, systematic reviews demonstrate that communication is associated with positive outcomes, such as reduced pain and disability, and enhanced patient satisfaction (Hall et al., 2010; Klaber Moffett & Richardson, 1997; O'Keeffe et al., 2016; Oliveira et al., 2012). Communication is therefore important for both patients and clinicians and "effective" communication can be seen to have multiple benefits.

One dimension of communication is body communication. This has traditionally been known as non-verbal communication and refers to communication achieved by means other than words (Marcinowicz et al., 2010). Rather than being subordinate to verbal communication (Thornquist, 1991), as might be implied by the term "non-verbal", we use the term body communication to reflect this form of communication as constitutive, enabling physiotherapists to provide care (Ek, 1991; Mattsson et al., 2000; Nicholls & Gibson, 2010), and patients to be more engaged in their care (Thornquist, 1991). Body communication is multi-faceted. It includes touch, facial expression and eye contact, body movement, gesture, posture, the prosody of voice (rhythm and intonation), the use of time, and proxemics (Hargreaves, 1982; Silverman et al., 2016). Proxemics involves aspects of personal distance and relationship to the environment (Petitpas & Cornelius, 2004); this has particular significance in physiotherapy as many treatments are carried out by the therapist in proximity to the patient. Several authors have highlighted the intrinsic relationship between physiotherapy and the body as a communicative medium (Ek, 1991; Engelsrud et al., 2018; Mattsson et al., 2000; Nicholls & Gibson, 2010). Body communication constitutes a significant part of patient–physiotherapist interactions (Perry, 1975; Roberts & Bucksey, 2007), and it is through and with the body that our treatments are often provided (Ek, 1991; Mattsson et al., 2000; Nicholls & Gibson, 2010). Because of its physical nature, body communication is particularly relevant and important in physiotherapy. For example, gestures and gaze play an essential role in expressing feedback on the performance of exercises, while body positioning and therapeutic touch are critical in carrying out hands-on techniques (Ek, 1991). Furthermore, body communication may provide a means for physiotherapists to understand the patient's emotional experience of injury (Crepeau, 2016) and enable them to convey empathy

(Grzybowski et al., 1992). Body communication may therefore support physiotherapists in communicating in a more person-centred manner, due to its role in helping create an emotionally supportive treatment environment.

Despite the importance of body communication in a profession whose fundamental objectives are achieved through and with the body, there has been limited empirical interest in body communication as a form of communication. Most of the available literature has arisen indirectly from research focused on verbal communication. Therefore, the aim of this review was to synthesise what is currently known about body communication, seeking to explicate its role and function in physiotherapy practice. This review was undertaken to inform a qualitative study of body communication in physiotherapy practice and contribute to the knowledge and understanding of body communication.

OVERVIEW OF METHODS

We drew from the thematic synthesis methodology described by Thomas and Harden (2008), an approach to the synthesis of qualitative research findings. This approach seeks to synthesise knowledge about people's perspectives and experiences, generating themes that "go beyond" the primary studies to provide wider insights into a phenomenon.

Methods

We undertook a systematic search of health-related databases initially in June 2017. The search was updated in November 2019 and October 2022. EBSCO Health Databases (including the Cumulative Index to Nursing and Allied Health Literature, MEDLINE, and the Psychology and Behavioral Sciences Collection), OVID databases (including OVID Medline and PsychINFO), Web of Science, and SCOPUS were searched. Additionally, we searched for publications from sources including the Critical Physio Network website and ResearchGate, and prominent researchers in the field were contacted directly to ensure relevant research was not omitted. Once articles from these sources were identified, we used citation searching (Parry & Land, 2013) to identify any remaining articles.

We developed a structured search strategy, with the support of librarians (Briner & Walshe, 2014). The search strategy was tailored to each database, using proximity searching. The search terms were applied against title, abstract, and keyword fields as shown in Table 1.

Touch was included as preliminary scoping revealed "touch" was a key component of body communication.

Inclusion/exclusion criteria

Qualitative research, of any methodology, was included in this review if the article:

1. Contained descriptions of body communication between patients/clients and physiotherapists in the form of quotations from the original data (Major & Savin-Baden, 2010).
2. Discussed the role of body communication in physiotherapy practice, based on empirical qualitative research.
3. Contained descriptions of body communication from the perspective of either the patient or the physiotherapist in the form of quotations from the original data.

Qualitative research was excluded from the review if the article:

1. Was a commentary or opinion piece.
2. Was published in any language other than English,
3. Included interaction within groups of people, simulated interactions, or interactions with family or relatives of the patient.
4. Described an individual's body communication but did not contain a direct reference to body communication in the analysis section, i.e., body communication was not a direct and significant finding of the research.
5. Only explored body movement from a performative perspective (not a communicative perspective).
6. Was conducted in a paediatric or adolescent population.

Electronic database search results were downloaded to the online reference management software EndNote20, which allowed checking for and removal of duplicates and maintenance of different folders for initial searches, and for included and excluded articles. The first author assessed retrieved titles and abstracts against the inclusion criteria; any studies that remained unclear in terms of their eligibility for inclusion were reviewed by the second author. Figure 1 illustrates the search and screening process.

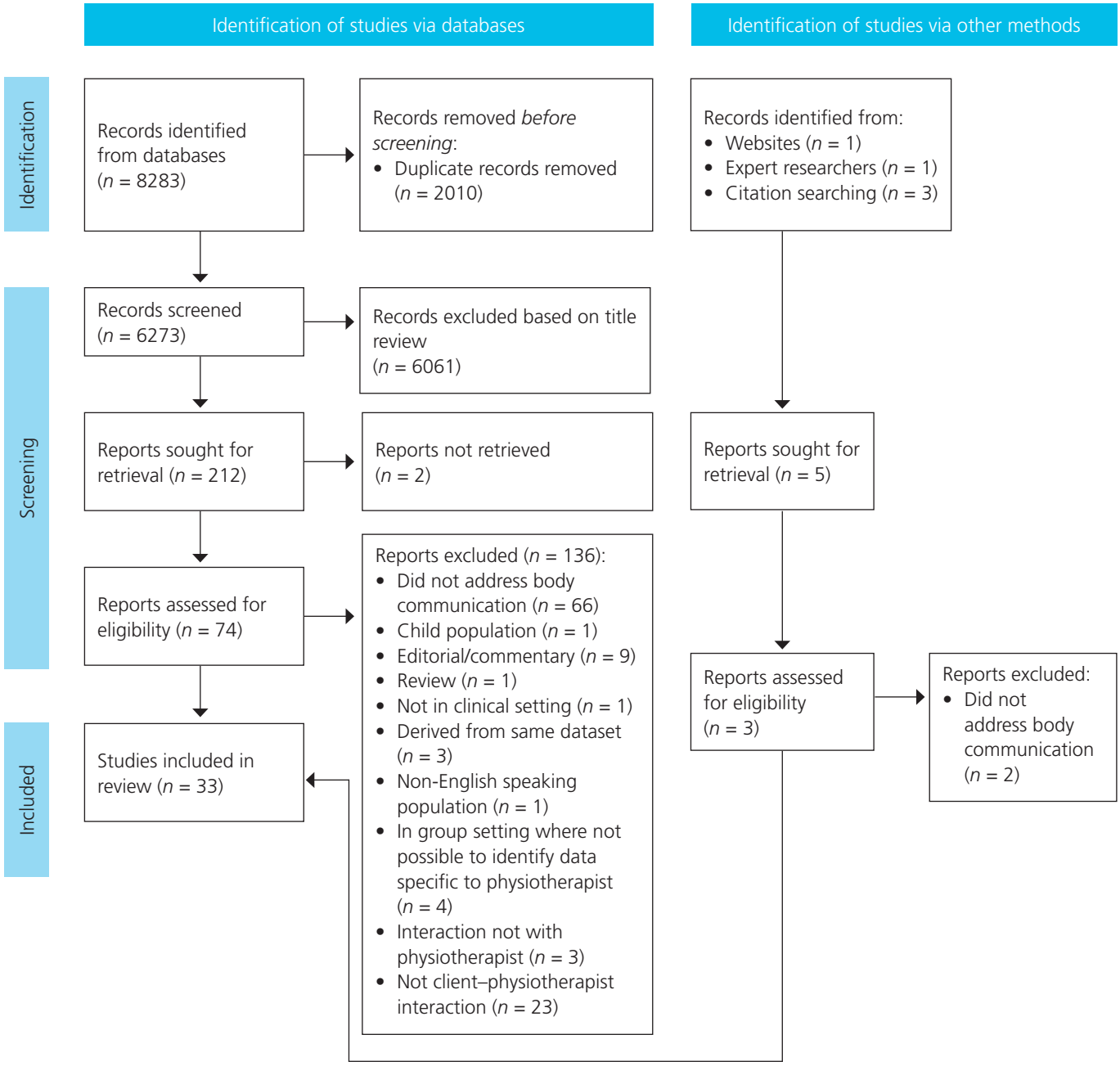
Table 1

Search Terms

Database	Search terms
EBSCO, Web of Science and SCOPUS	("physical therap*" OR physiotherap*) AND within five words of: (communicat* OR interact* OR "non-verbal" OR "nonverbal" OR "bod*) OR (communicat*" OR touch*)
OVID medical subject heading (MESH)	touch OR "tactual perception" OR "cutaneous sense" OR "physical contact" OR communication OR "or nonverbal communication" OR "interpersonal communication" OR "communication skills" OR "emotional content" OR interaction OR social interaction OR social behaviour OR interpersonal interaction OR physical contact AND physiotherapy or "physical therapy"

Figure 1

Search Process



Methodological quality

Articles selected for retrieval were appraised using the Critical Appraisal Skills Programme (CASP) qualitative research checklist (Critical Skills Appraisal Programme, 2010). Quality appraisal was carried out by the lead author (CG). Uncertainty about quality assessment was discussed with the second author (FB) and resolved by consensus.

Data synthesis

We used thematic synthesis to integrate data from across the included articles (Thomas & Harden, 2008). This process had three stages: coding text line by line, developing descriptive themes, and generating analytic themes. First, we extracted data related to the focus of review (the role and function of body communication). This was done using NVivo11, a qualitative data analysis computer software package (QSR International, Melbourne), which allowed us to organise and conduct initial coding of data. From this coding, we developed a range of descriptive themes close to the primary data, which were interrogated through discussion within the research team. Finally, we generated analytic themes that went beyond description. In doing so, our process of theming and generating theme labels was informed by the research aim: understanding the roles and functions of body communication.

RESULTS

Characteristics of included studies

We identified 33 qualitative articles that attended to body communication and interaction in physiotherapy. The included articles and key interpretations related to body communication are summarised in Table 2. The articles selected revealed that literature about body communication was fragmented and buried within research that focused on verbal communication. Body communication was the focus of only one article (Thornquist, 1991). In the others, it was commonly a key finding in research on other areas of physiotherapy practice such as patient–therapist interaction. There were 484 participants in total including 288 physiotherapists and 196 patients.

The studies were conducted in a range of settings and employed various qualitative methodologies and methods. The most frequent clinical settings were private practice *(n* = 13), musculoskeletal outpatients (*n* = 7), acute/inpatient hospitals (*n* = 7), psychiatric outpatients (*n* = 6), neurological outpatients (*n* = 1), and in four studies, the setting was unclear. Many of the studies were carried out in Scandinavian countries including Norway (*n* = 9), Sweden (*n* = 4), and Denmark (*n* = 3), as well as Australia (*n* = 6) and the United States of America (*n* = 3). No studies were conducted in New Zealand.

The most commonly adopted methodologies were phenomenology (*n* = 10), ethnography (*n* = 5), qualitative content synthesis (*n* = 4), grounded theory (*n* = 3), conversational analysis (*n* = 2), and interpretive description (*n* = 2). Seven studies did not state the philosophical tradition or methodology.

Methodological quality

No attempt was made to score articles and the checklist was not used to select articles for inclusion; rather, quality appraisal was used to provide a context for the interpretation of the synthesised findings (Walsh & Downe, 2006). Most articles met five of six criteria in section A (validity of study results). However, 13 articles did not acknowledge or explain the influence of the researcher's presence on the patient–physiotherapist interaction. In section B (results), 32 articles contained insufficient detail of ethical procedures. In section C (application of results locally), all included articles were deemed valuable with application across the population under review. The quality appraisal of each article is reported in Table 3.

Themes

Four analytic themes were constructed from synthesising of the 33 articles included in this review:

1. Conveying the physiotherapist's attention and interest.
2. Enabling patients to contribute to care.
3. Guiding physiotherapy intervention through bodily dialogue.
4. Building the therapeutic relationship.

Table 4 provides an example of the process of thematic synthesis.

Theme 1: Conveying the physiotherapist's attention and interest

Body communication played a key role in conveying the physiotherapist's attention. Patients valued attention as it gave an impression that physiotherapists were interested in their problems (Crepeau, 2016; Thornquist, 1991) and were taking their problems seriously (Ekerholt & Bergland, 2004, 2006, 2008). When patients felt the physiotherapist was attentive, they felt confirmed, listened to, and understood (Eriksson et al., 2012; Houston-McMillan, 1988). This influenced patient satisfaction and their perceptions of positive recovery (Crepeau, 2016; Gyllensten et al., 2000; Potter et al., 2003b).

Through touch or physical proximity, body orientation, posture, eye contact, or gaze, physiotherapists conveyed attention in several ways. Several authors observed how physiotherapists conveyed attention by turning their bodies to look directly at patients as they spoke, positioned themselves close to and level with their patient, and by leaning forwards during dialogues with the patient (Crepeau, 2016; Miciak et al., 2018; Thornquist, 1991). Crepeau (2016) illuminated the importance of the physiotherapist's complete body attention to the feeling of being cared for, in an account of her own journey to recovery from bilateral knee replacement surgery:

> I stand at a piece of equipment flexing and extending my knee against resistance. … While we chat, I bend and flex my knee, counting as I go. … Colleen [the physiotherapist] continues to sit, elbows on knees, hands cupping her chin, watching intently. (p. 2423)

Interestingly, Morera-Balaguer et al. (2019), found that verbal and body communication needed to be congruent for the physiotherapist to be perceived as attentive: "The way she looks at you, if she communicates the same thing with her gestures and her words, if she empathises with you or not, if she is really listening to you or not" (p. 7).

Other articles suggested experienced physiotherapists were particularly skilled at conveying attention while managing simultaneous demands. They used a range of techniques to do so, such as using gaze to assess and monitor groups of patients; giving each patient the feeling the physiotherapist was attentive (Crepeau, 2016; Jensen et al., 1990), turning bodies toward patients while writing notes and looking up at patients when patients spoke (Thornquist, 1991), adjusting seating arrangements, or using private rooms versus curtained cubicles to help convey attention (Crepeau, 2016; Jensen et al., 1990; Miciak et al., 2018). However, conveying attention was not always evident in the physiotherapist's behaviour. Jensen et al. (1990) suggested this might be most evident in novice physiotherapists, as their study suggested less experienced therapists were more intent on activities such as paperwork and physical examination than being attentive to their patients. These examples reflect that experienced clinicians used space *and* body communication to convey attention in the context of multitasking.

Another aspect of attention illustrated in multiple studies was whether the physiotherapist was perceived by patients to be *present*, conveying that they had time for patients (Ahlsen &

Table 2

Included Articles

Reference	Methodology	Study aim	Setting(s)	Participant demographics	Methods	Key interpretation(s) related to body communication
Ahlsen and Nilsen (2022)	Qualitative observational case study	Explore the verbal and nonverbal communication used by physiotherapists to connect with patients	Psychiatric out-patient clinic, Norway	1 male patient in his forties and his physiotherapist, a woman in her fifties who specialised in psychomotor physical therapy	Video-recorded observations of the first encounter only	Through verbal and body communication (notably touch), the patient's participation in the encounter is promoted
Bjorbækmo and Mengshoel (2016)	Phenomenology	Explore the meaning and significance of touch in physiotherapy practice	Private musculoskeletal settings, Norway	9 patients with chronic neck pain and 9 physiotherapists (no indication of age or years of clinical experience)	16 observations and interviews	Through touch physiotherapists and patients communicate to create understanding and perform therapy
Buhl and Pallesen (2015)	Phenomenology	Explore the experiences of physiotherapists in early rehabilitation who face challenges in facilitating and promoting participation of the severe acquired brain injury patient	Intensive care settings, Denmark	1 physiotherapist with 6 years' experience	Five semi-structured interviews and a focus-group interview	Body communication (through gestures and facial expressions for example) was crucial to the patient's ability to participate in the encounter
Chowdhury and Bjorbækmo (2017)	Phenomenology	Examine one physiotherapy encounter, focusing on the lived experience of the physiotherapist collaborating with their patient throughout the first session	Private musculoskeletal clinics, Norway	1 male physiotherapist (the first author) and his female patient (no indication of age or years of clinical experience)	Observation of patient–therapist interaction	Physiotherapists need to have an awareness of often subtle nonverbal cues from the patient. Highlights the importance of flexibility and responsiveness in practice
Crepeau (2016)	Narrative traditions using recollection and writing to explore her own rehabilitation experience	Illuminate the importance of patient care and explicate the impact of attention on my recovery	Outpatient musculoskeletal clinic, USA	The author drew on her own recollections and writing to explore her rehabilitation experience	The article uses vignettes to illustrate attention in patient–practitioner interaction	The study details aspects of body communication that convey the physiotherapist's attention as well as the impact of attention and inattention
Ekerholt and Bergland (2004)	Grounded theory	Elucidate patients' experiences of the examination of the body given in NPMP	Outpatient psychiatric hospital, Norway	10 patients; 9 females, 1 male; age range 41–65 years	Semi-structured interviews	Body communication often occurred between the patient and physiotherapist's bodies. Understanding of the patient's bodily symptoms occurred collaboratively

Reference	Methodology	Study aim	Setting(s)	Participant demographics	Methods	Key interpretation(s) related to body communication
Ekerholt and Bergland (2006)	Grounded theory	Explore patients' experiences of the massage given in a body therapy in NPMP	Outpatient psychiatric hospital, Norway	10 patients; age range 41–65 years (9 females, 1 male). Note: same characteristics as for Ekerholt and Bergland (2004)	Semi-structured interviews	Massage places emphasis on the body as a source of information and enables the possibility for mutual understanding
Ekerholt and Bergland (2008)	Grounded theory	Explore patients' experiences of breathing during therapeutic processes in NPMP	Outpatient psychiatric hospital, Norway	10 patients; age range 41–65 years (9 females,1 male). Note: same characteristics as for Ekerholt and Bergland (2004)	Semi-structured interviews	Body communication (through breathing) was important to the patient's understanding of their problems and ways to improve
Eriksson et al. (2012)	No statement on philosophical tradition or methodology	Describe physiotherapists' experiences of shoulder palpation	Outpatient and inpatient care services at a hospital, Sweden	7 physiotherapists; details of female and male ratios not specified; age range 37–66 years; range of clinical practice experience 7–35 years	Focus group interviews	Touch confirms the patients' experience and connects patients and physiotherapists
Fenety et al. (2009)	No statement on philosophical tradition or methodology	Explore physiotherapists' informed consent practices in the treatment of clients with low back pain	Musculoskeletal outpatient settings, Canada	44 physiotherapists; 36 females, 8 males; range of clinical practice experience 0.5–38 years	Focus group interviews	The patient's posture, movements and facial expression implied consent or its withdrawal. Authors referred to this process as "embodied consent"
Gyllensten et al. (1999)	Qualitative case study with cross case analysis	Explore what factors experts in psychiatric physiotherapy believed to be important in the interaction between the patient and the physiotherapist	Psychiatric physiotherapists in multiple settings including community care practice and primary care, Sweden	11 psychiatric physiotherapists; 2 males, 9 females; age range 31–61 years; mean of 9 years (range 6–40 years) clinical practice experience	Audio-taped Interviews	By using body communication, the physiotherapist can make the client feel secure and reinforce the therapeutic relationship.
Harman et al. (2011)	No statement on philosophical tradition or methodology	Explore patient education provided by physiotherapists in private practice who treat injured workers with subacute low back pain	Private musculoskeletal practices, Canada	44 physiotherapists; 36 females, 8 males; mean of 17.5 years' experience (range 0.5–38 years)	Focus group interviews	Physiotherapists described using tactile information to extend their understanding of their patients' conditions as well as to provide reassurance
Helm et al. (1997)	No statement on philosophical tradition or methodology	Explore factors influencing physiotherapist's acquisition of touching style	Various inpatient acute and rehabilitation settings, USA	40 physiotherapists: 12 worked in hospital settings, 10 in private practice, 5 in nursing home, 3 in home health care, and 1 each in both a school and university	Phone interview	Physiotherapists described attuning to patient's body communication to adjust their therapeutic approach

Reference	Methodology	Study aim	Setting(s)	Participant demographics	Methods	Key interpretation(s) related to body communication
Hiller et al. (2015)	Ethnography and grounded theory	Explore how patients and physiotherapists interact in private practice; how the research findings related to healthcare interaction approaches	Private practice settings, Australia	9 physiotherapists; 5 females, 4 males; mean of 12 years' clinical practice experience (range 1.5–28 years)	Field notes and audio-recordings of observations and interviews	Physiotherapists incorporated adaptive communication such as eye contact, body language, and touch into their interactions with patients. Were responsive to individual patient characteristics and functioned to build rapport
Houston-McMillan (1988)	Personal narrative	Explore the author's subjective experience of physiotherapy during their time as a patient in intensive care unit	Inpatient hospital setting, South Africa	The author drew on their own experiences in intensive care unit following a serious accident	Personal narrative	The importance of physical closeness including eye contact, touch, tone of voice in conveying acceptance of a physically damaged patient. This was also important in conveying equality in the relationship between patient and physiotherapist
Jamarim et al. (2019)	Exploratory case study	Explore the types of touch and their meaning for physiotherapists working in hospital settings	Outpatient hospital settings, Brazil	16 physiotherapists (no indication about age, gender or experience)	Observations and semi-structured interviews	Touch is mostly understood by physiotherapists in a mechanistic way with little acknowledgement of the humanistic aspects of touch
Jensen et al. (1990)	Ethnography	Develop a conceptual framework and a data collection tool to begin a systematic analysis of the work of the physiotherapist	4 different adult out-patient orthopaedic settings, USA	8 physiotherapists, representing three levels of experience: (novice to expert); 2 with < 2 years of experience, 3 with 3–7 years' experience, and 3 with > 13 years' experience	Audio-taped, non-participant observation	Experienced physiotherapists' hands were a source of communication with the patient and used for therapeutic intervention
Laurendeau (2018)	Auto-ethnography	Explore the researcher's experience of undergoing physiotherapy treatment for a chronic knee injury	Private musculoskeletal clinic, Canada	The researcher drew on their lived experiences of undergoing physiotherapy treatment for a chronic knee injury	Personal narrative	Expertise is conveyed strongly through body communication
Lee et al. (2006)	No statement on philosophical tradition or methodology	Explore the strategies used by physiotherapists to communicate with clients who have limited English proficiency	3 hospitals, Australia	5 physiotherapists; clinical experience range 1–22 years	Audio-recorded interviews and observations	Physiotherapists frequently used body communication in the form of demonstrations, gestures, facial expressions, and other visual cues

Reference	Methodology	Study aim	Setting(s)	Participant demographics	Methods	Key interpretation(s) related to body communication
Martin and Sahlström (2010)	Longitudinal case study using conversational analysis	Explore how learning is constituted and can be studied as a phenomenon in interaction and to explore how teaching and learning are related	Orthopaedic outpatient settings, Sweden (unclear from description)	Longitudinally followed one case (1 patient and 1 physiotherapist) across an entire shoulder treatment. Male physiotherapist: 25 years' experience; male patient aged 57 years	Video-recorded observations	The patient's body communication provided information that influenced the treatment
Miciak et al. (2018)	Interpretive description	Explore the various ways in which physiotherapists establish meaningful connections with their patients	Private practice clinics, Canada	11 physiotherapists and 7 patients (no indication about age, gender or experience)	Semi-structured interviews	Body communication could connect patients and physiotherapists by way of creating a sense of equality
Morera-Balaguer et al. (2019)	Qualitative thematic analysis	Explore the barriers and facilitators for the establishment of a person-centred relationship, based on the experience of physiotherapy patients	Primary care and public hospitals, Spain	31 patients; 21 females, 10 males; mean age 53 years	Audio and video recorded focus group interviews	The physiotherapists' body communication was important for demonstrating technical expertise and conveying relational care
Normann et al. (2013)	Phenomenology	Explore how persons with multiple sclerosis perceive movement during single sessions of physiotherapy	Outpatient hospital rehabilitation, Norway	12 persons with multiple sclerosis; 9 females, 3 males; age range 32–81 years	Phenomenological hermeneutic content analysis. Interviews supplemented by video-recorded observation	Physical communication occurs between the physiotherapist's hands and the patient's body. This gives the clinician access to information that would not be otherwise available through verbal communication alone
Øien et al. (2011)	Phenomenology	Explore communicative patterns about change in demanding physiotherapy treatment situations	Psychiatric out-patient clinic, Norway	Physiotherapist participants: 5 females, 1 male; age range 44–68 years; clinical experience 20–47 years Patient participants: 10 females, 2 males; average age 36 years (range 22–47 years)	Semi-structured interviews, video-recorded treatment sessions Patients' personal reflective notes, audio-recorded focus group interview	Inattention to the patient's body communication may compromise the therapeutic relationship Patients rely on the physiotherapists' sensitivity to their body communication to help understand their problem

Reference	Methodology	Study aim	Setting(s)	Participant demographics	Methods	Key interpretation(s) related to body communication
Potter et al. (2003b)	No statement on philosophical tradition or methodology	Explore the qualities of a "good" physiotherapist and to ascertain the characteristics of good and bad experiences in private practice physiotherapy from the patients' perspective	Private musculoskeletal clinics, Australia	26 patients (no further details available)	Interviews	Active listening, body language builds trust, demonstrates empathy
Reunanen et al. (2016)	Discourse analysis informed by social constructionism	Explore the interaction between the client and the physiotherapist in stroke rehabilitation sessions	2 physiotherapy sessions were videoed in the hospital, 3 in the rehabilitation centre and 3 in health centres, Finland	5 female and 3 male patients with stroke; age range 41–86 years	Video-recorded encounter by participating physiotherapist	Documents an episode of the physiotherapist responding to patient's nonverbal expression of frustration (theme was "neglecting emotional talk")
Roenn-Smidt et al. (2021)	Longitudinal case study using phenomenology	Explore how interaction between patient and physiotherapist is conducted and how phenomenology might support and develop a patient's identify after stroke	Outpatient neuro-rehabilitation hospital, Denmark	12 patients with stroke; age range 46–79 years	Video-recorded treatment sessions	Physiotherapy can focus on the patient's bodily sensations to create a non-verbal dialogue between patient and therapist. This dialogue gives the patient access to knowledge about themselves
Roger et al. (2002)	Naturalistic case study design with a cross-case analysis.	Explore how physiotherapists use touch in inpatient acute and rehabilitation settings	Inpatient, acute care and rehabilitation settings, USA	15 experienced physiotherapists; clinical experience range 3.5–21 years	Video-recorded treatment sessions Audio-recorded interview with physiotherapists	The most common types of touch used by physiotherapists included assistive touch, touch to provide information, caring touch, touch to provide a therapeutic intervention, and touch used to perceive information
Rutberg et al. (2013)	Phenomenology	Explore the lived experience of physical therapy of persons with migraine	Outpatient musculoskeletal settings, Sweden	11 patients; 9 females, 2 males; age range 20–69 years	Interviews and video-recorded observation of single physiotherapy sessions	Touch is security and establishes relationships

Reference	Methodology	Study aim	Setting(s)	Participant demographics	Methods	Key interpretation(s) related to body communication
Schoeb and Hiller (2018)	Ethno-methodology and ethnography	Explore how physiotherapists and their patients communicate during episodes of documentation	Private musculoskeletal practices and hospital-based outpatient clinics, Switzerland and Australia	61 patients being treated by 19 physiotherapists (Switzerland); 52 patients treated by 8 physiotherapists (Australia) were observed	Participant observation, video-recordings, audio-recordings, and field notes	During documentation physiotherapists made minimal eye contact with patients and there were frequent pauses in conversation
Thing (2005)	Phenomenology	Explore women's experience of injury Explore physiotherapists' understanding of body structure and how these understandings influence their interaction with patients the rehabilitation process	Outpatient, musculoskeletal settings, Denmark	17 female handball players; age range 19–38 years	200 1-hour observations and field notes and interviews with patients	Rehabilitation of movement in rehabilitation is structured biomedically. Aspects of body communication included facial expressions, silence, gaze, tone of voice, nodding
Thornquist (1991)	Descriptive content analysis informed by phenomenology	Explore how physiotherapists relate to their patients through body communication during first encounters	Outpatient orthopaedic, psychiatric and community settings, Norway	3 groups of physiotherapists: manual and psychiatric clinicians and community physiotherapists (no indication of age, gender or clinical experience)	Video-recorded observation	Body communication was used by physiotherapists to convey the availability and engagement of the physiotherapist. For example, eye contact and body positioning
Vaughan-Graham and Cott (2016)	Interpretive description	Explore the clinical reasoning process of Bobath instructors	Private practice, acute care, in-patient rehabilitation, out-patient rehabilitation, and home care settings, Australia, Spain, Italy, and Portugal	22 Bobath instructors; clinical experience range 12–40 years	Stimulated recall using video-recorded treatment sessions and in-depth interviews	Physiotherapists described how they used the information from their hands and body to add another dimension to their clinical reasoning

Note. NPMP = Norwegian Psychomotor Physiotherapy.

Table 3

Methodological Quality: CASP Qualitative Study Checklist

Reference	Questions									
	Did the study address a clearly focused issue?	Is a qualitative methodology appropriate?	Was the research design appropriate to address the aims of the research?	Was the recruitment strategy appropriate to the aims of the research?	Was the data collected in a way that addressed the research issue?	Has the relationship between researcher and participants been adequately considered?	Have ethical issues been taken into consideration?	Was the data analysis sufficiently rigorous?	Is there a clear statement of findings?	How valuable is the research?
Ahlsen and Nilsen (2022)	Yes	Yes	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes
Bjorbækmo and Mengshoel (2016)	Yes	Yes	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes
Buhl and Pallesen (2015)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Chowdhury and Bjorbækmo (2017)	Yes	Yes	Yes	?	Yes	Yes	No	Yes	Yes	Yes
Crepeau (2016)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ekerholt and Bergland (2004)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Ekerholt and Bergland (2006)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Ekerholt and Bergland (2008)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Eriksson et al. (2012)	Yes	Yes	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes
Fenety et al. (2009)	Yes	Yes	?	Yes	Yes	No	?	Yes	Yes	Yes
Gyllensten et al. (1999)	Yes	Yes	Yes	Yes	Yes	No	?	Yes	Yes	Yes
Harman et al. (2011)	Yes	Yes	?	Yes	Yes	Yes	?	Yes	Yes	Yes
Helm et al. (1997)	Yes	Yes	?	Yes	Yes	Yes	?	Yes	Yes	Yes
Hiller et al. (2015)	Yes	Yes	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes
Houston-McMillan (1988)	Yes	Yes	?	Yes	Yes	Yes	?	Yes	Yes	Yes
Jamarim et al. (2019)	Yes	Yes	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes
Jensen et al. (1990)	Yes	Yes	?	Yes	Yes	No	?	Yes	Yes	Yes
Laurendeau (2018)	Yes	Yes	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes
Lee et al. (2006)	Yes	Yes	?	Yes	Yes	No	?	Yes	Yes	Yes
Martin and Sahlström (2010)	Yes	Yes	?	Yes	Yes	Yes	?	Yes	Yes	Yes
Miciak et al. (2018)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Morera-Balaguer et al. (2019)	Yes	Yes	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes
Normann et al. (2013)	Yes	Yes	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes
Øien et al. (2011)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Potter et al. (2003b)	Yes	Yes	?	?	Yes	No	?	Yes	Yes	Yes
Reunanen et al. (2016)	Yes	Yes	?	No	Yes	Yes	No	Yes	Yes	Yes
Roenn-Smidt et al. (2021)	Yes	Yes	Yes	Yes	Yes	?	No	Yes	Yes	Yes
Roger et al. (2002)	Yes	Yes	?	Yes	Yes	No	?	Yes	Yes	Yes
Rutberg et al. (2013)	Yes	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes	Yes
Schoeb and Hiller (2018)	Yes	Yes	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes
Thing (2005)	Yes	Yes	Yes	Yes	Yes	No	?	Yes	Yes	Yes
Thornquist (1991)	Yes	Yes	?	No	?	?	No	No	Yes	Yes
Vaughan-Graham and Cott (2016)	Yes	Yes	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes

Note. CASP = critical appraisal skills programme; ? = unclear.

Table 4

Example of Thematic Synthesis

Text	Code	Descriptive theme	Analytic theme
The client's body language was assessed by the participant for consent to treatment, both prior to and while treatment was in progress. Trust and rapport between therapist and client extended to the body's response to treatment. This, too, was considered an active, implied consent by focus group participants.	Consent through body communication	Conveying key information through the body	Enabling patients to contribute to care

Nilsen, 2022; Ekerholt, 2011; Ekerholt & Bergland, 2004, 2006; Gyllensten et al., 2000; Miciak et al., 2018). A physiotherapist who appeared unhurried, calm, and friendly could give the impression of being present (Ekerholt, 2011; Ekerholt & Bergland, 2006; Gyllensten et al., 1999). Examples included maintaining eye contact, sitting quietly, and not interrupting the patient as they spoke (Ekerholt, 2011). Physiotherapists could also signal presence by changing their body communication in response to the patient's communication (Ahlsen & Nilsen, 2022). The authors provided an example of where the physiotherapist had started to move away from the patient, but the patient started talking. The therapist immediately stopped, turned to face the patient, and listened quietly without interrupting. These behaviours were perceived by the authors to convey that the physiotherapist was present in the moment.

Theme 2: Enabling patients to contribute to care

Patients also communicated through their body. This was more likely to be successful when physiotherapists conveyed attention, awareness, and sensitivity (Bjorbækmo & Mengshoel, 2016; Buhl & Pallesen, 2015; Gyllensten et al., 1999; Harman et al., 2011; Lee et al., 2006; Pallesen & Buhl, 2017). This form of patient communication was particularly valuable when verbal communication was challenging (Buhl & Pallesen, 2015; Ekerholt, 2011; Fenety et al., 2009). One example of this was from an intensive care physiotherapist working with patients unable to speak due to severe brain injury. The physiotherapist described holding eye contact and waiting calmly for a patient's reactions in order to detect subtle signs of the patient's participation.

Patient participation was often conveyed through gesture and facial expression (Buhl & Pallesen, 2015). Body communication, in this case, enhanced the patient's voice and enabled them to actively participate in rehabilitation. Similarly, Ekerholt (2011) captured the importance of body communication in facilitating patient participation in the following quote from a patient about their experience of Norwegian physiotherapy in a psychiatric setting:

> She let me talk. If I was at a loss for words, she would just sit very quietly, peering at me, letting me take my time, calmly, just waiting and listening. She gave me time to pick my own words. When somebody sits like that and listens, then the words will turn up. (p. 108)

Body communication also supported physiotherapists to determine a patient's understanding of their treatment. For example, Harman et al. (2011), in research in back pain care, demonstrated how the patient's body communication provided implicit cues to physiotherapists about patients' growing insight and understanding. One physiotherapist said: "And a lot of times, you see that look on their face, Oh, thank God, Okay. Oh, yeah, I get that, and you feel like … you walk away and you feel like they finally get it" (p. 218).

The patient's body communication functioned as a form of "embodied consent" (Fenety et al., 2009, p. 657). Bodily responses such as movements and facial expressions could be a sign of ongoing treatment consent. In a busy clinical setting, physiotherapists described relying on this as they considered they did not have time to stop treatment and obtain verbal consent for every change in an intervention (Fenety et al., 2009). Body communication also provided a way for patients to communicate the emotional aspects of injury that were often difficult, if not impossible, to verbalise (Bjorbækmo & Mengshoel, 2016; Crepeau, 2016; Gyllensten et al., 1999). For instance, Crepeau (2016) described how her physiotherapist identified that she was upset through her slow movements and slouched body posture. Body communication thus enabled patients to express their unspoken needs, concerns, and emotions, and physiotherapists to develop a greater understanding of their patients than using words alone.

A lack of attention to the patient's body communication could be problematic**.** For example, physiotherapists who missed or were unaware of patient body communication had difficulties adjusting treatment to their patients and were at risk of alienating them from rehabilitation (Crepeau, 2016; Morera-Balaguer et al., 2019; Reunanen et al., 2016; Talvitie & Reunanen, 2002; Thing, 2005; Thornquist, 1991). Distress could be shown through body communication such as posture or tone of voice (Thing, 2005). If physiotherapists fail to read and respond to this communication, patients may become more frustrated or disengage (Thing, 2005). Talvitie and Reunanen (2002) found that it was not uncommon for physiotherapists to fail to read and respond to patient body communication, and indeed, often assumed compliance and engagement with their verbal instructions. This dominant and one-way interaction pattern meant that some patients failed to find meaning in

therapy and stopped attending (Talvite & Reunanen, 2002; Thing, 2005).

Theme 3: Guiding physiotherapy intervention through bodily dialogue

By attuning to patient body communication, physiotherapists were able to adjust their therapeutic approach. This helped patients understand more about their health and physical function (Ahlsen & Nilsen, 2022; Buhl & Pallesen, 2015; Ekerholt & Bergland, 2004, 2006, 2008; Gyllensten et al., 1999; Øien et al., 2011; Pallesen et al., 2017; Roenn-Smidt et al., 2022; Thornquist, 1991). Ekerholt and Bergland (2004, 2006, 2008) observed that, during massage or when teaching exercises, the physiotherapist adjusted their touch as well as the difficulty of movements based on the response observed in the patient's breathing. Patients said that these adjustments increased their awareness and understanding of their own body reactions and contributed to their knowledge of their problem. This form of "bodily dialogue" between patient and therapist was observed in multiple studies (Ahlsen & Nilsen, 2022; Bjorbækmo & Mengshoel, 2016; Buhl & Pallesen, 2015; Ekerholt & Bergland, 2004, 2006, 2008).

A physiotherapist's responsiveness towards patient body communication also helped physiotherapists determine whether treatment was appropriate at all, as illustrated in the extract from Crepeau (2016):

> I walk slowly down the path to the clinic. I am really down today, progress has been so slow, I did not sleep well the previous night, I am cutting down on the Percocet and the new pain medication is not covering the pain as well. I walk into the clinic, remove my coat, and start to walk toward the bike. Colleen flies out of the office, looks at me and says, 'Are you all right?' I burst into tears. She says, 'Skip the bike, and let's go to a treatment room'. (p. 2423)

These findings demonstrate how body communication contributed to co-constructing physiotherapy interactions. However, within these studies, the authors did not attend to the way that both patient and physiotherapist contributed to communication and the therapeutic process.

Theme 4: Building the therapeutic relationship

Numerous researchers suggest that body communication played an essential role in building the therapeutic relationship (Ahlsen & Nilsen, 2022; Bjorbækmo & Mengshoel, 2016; Crepeau, 2016; Eriksson et al., 2012; Hiller et al., 2015; Houston-McMillan, 1988; Jamarim et al., 2019; Normann et al., 2013; Rutberg et al., 2013; Thornquist, 1991). Several studies suggested that physiotherapists could establish rapport and convey caring and understanding through therapeutic touch in a way that transcended words (Ahlsen & Nilsen, 2022; Bjorbækmo & Mengshoel, 2016; Eriksson et al., 2012; Houston-McMillan, 1988; Normann et al., 2013; Rutberg et al., 2013). However, examples of what this touch looked like, and *how* physiotherapists enacted therapeutic touch, were absent, making it challenging for other clinicians to learn from.

Therapeutic touch informed the patient's perception of the physiotherapist's skill and competence. When patients had confidence and trust in the therapist, this supported the development of the therapeutic relationship (Hiller et al., 2015; Laurendeau, 2018; Morera-Balaguer et al., 2019; Rutberg et al., 2013). This sense of trust conveyed through touch is illustrated in an extract from Morera-Balaguer et al. (2019): "He knows how to do his job … I feel that he knows where he is touching and he is making me improve with minimal pain, so I have complete trust in him and I feel good" (p. 6).

The role of touch in locating pain appeared in several studies, with these authors reporting this as something patients valued as a marker of competence (Morera-Balaguer et al., 2019; Rutberg et al., 2013).

It was, however, easy to undermine trust by using touch unskilfully or insensitively. For example, Rutberg et al. (2013) noted that when patients perceived touch as unsure or clumsy, it conveyed the sense that the therapist was inexperienced, which in turn, undermined their trust and confidence in the physiotherapist. Similarly, when physical touch was seen to contribute to pain, for instance, through physical manipulation, this was problematic and could cause distress (Potter et al., 2003b).

As well as problematic body communication, the *lack* of body communication could be detrimental to the therapeutic relationship. Several researchers observed that breaks in the therapeutic relationship between patient and physiotherapist were largely related to the physiotherapist conveying inappropriate body communication (Crepeau, 2016; Morera-Balaguer et al., 2019; Øien et al., 2011; Reunanen et al., 2016). For example, Morera-Balaguer et al. (2019) explored patients' experience regarding the therapeutic relationship and found that therapists who failed to make eye contact with patients could make patients feel belittled and disengaged with therapy, as illustrated in the extract below:

> If you go there fed up to start with, and you find angry faces, and they don't look you in the eyes when they speak to you, you feel belittled, and you say to yourself 'well, let's see what happens today'. (p. 6)

Body communication could shape the therapeutic relationship; however, details of how body communication was enacted and how it occurred remain unclear.

DISCUSSION

This qualitative synthesis reviewed the literature on what is known about body communication in physiotherapy practice. Four analytic themes were constructed from the 33 articles reviewed. Theme 1 highlighted how, through body communication, physiotherapists conveyed attention and interest in encounters. Experienced physiotherapists appeared particularly skilled at conveying attention, whereas novice physiotherapists seemed more focused on clinical tasks. Theme 2 showed how body communication enabled patients to communicate in situations where verbal expression was challenging and to contribute more fully to their own care. Theme 3 demonstrated how body communication played a crucial role in guiding physiotherapy interactions, allowing both patient and physiotherapist to contribute to therapy and facilitating the patient's understanding of their problem. Theme 4 showed that body communication could also help shape the

therapeutic relationship between patient and physiotherapist positively or negatively. Inattention to body communication could be problematic, as it could prevent the physiotherapist from fully understanding the patient's needs and concerns and result in patient disengagement or dissatisfaction. Together, the findings of this qualitative synthesis suggest that sensitive and responsive body communication supported a more reciprocal and person-centred approach to care.

While this synthesis provided rich insights into body communication, it is clear that body communication is an area that is significantly under-researched. This is somewhat surprising given the centrality of body communication in physiotherapy practice (Bjorbækmo & Mengshoel, 2016; Ek, 1991; Thornquist, 1991). Most of the included studies were not seeking to examine body communication per se. Instead, many focused on broad patient–physiotherapist interactions. Only one study attended specifically to body communication (Thornquist, 1991), suggesting that a focus on body communication in future work would likely generate further insight regarding its role in physiotherapy practice. The value of a focus on body communication in research is evident within nursing, where authors have demonstrated that body communication is of great importance in creating, changing, or maintaining an atmosphere in a hospital ward, which influences the patients' mood, spirits, and wellbeing (Olausson et al., 2013; Rowlands & Noble, 2008). These findings from physiotherapy may be more comparable to what is known in medicine, where communication research and teaching commonly privilege verbal communication. This may reflect that both professions have their grounding in biomedical models of practice (Forsey et al., 2021).

A more explicit aim of understanding body communication might also see researchers use data collection approaches that enable nuanced descriptions of practice. For instance, in the studies included in this review, only one third of authors gathered video recordings of body communication. Many drew on a phenomenological methodology that holds subjective experience as its primary object of analysis. This does not provide a sufficient account of the contingent and co-constructed nature of communication (Gergen, 2015), nor a detailed account of communication *as* it occurs. For these reasons, it is difficult, if not impossible, for researchers to document the subtleties and complexities of body communication (Martin & Sahlström, 2010). Generating nuanced details of dyadic body communication would allow for a greater understanding of *how* body communication influences the patient-therapist interaction (Bensing et al., 1995) and thereby patient health outcomes (Duggan & Parrott, 2001). It may allow for rich descriptions of interactions that clinicians can then learn from and apply within their practice. Our qualitative synthesis suggests body communication is vital to building the therapeutic relationship. However, there is very little information about *how* it does this. Indeed, many studies focused on first encounters between physiotherapists and patients, ignoring the shifts in interactions and relationships over time (Bjorbækmo & Mengshoel, 2016; Chowdhury & Bjorbækmo, 2017; Normann et al., 2013; Reunanen et al., 2016; Rutberg et al., 2013; Thornquist, 1991). Research that explicitly explores body communication, how it is enacted, and its constitutive impacts would offer a significant amount to the field, providing depth and detail that enables meaningful clinical reflection and application.

Currently, understandings about body communication have come from outside New Zealand. Of the 33 articles in the review, 15 were conducted in Nordic countries. While there are similarities in physiotherapy practice internationally, each country has its own nuances related to its population or practice. Generalisability must, therefore, be viewed in relation to the specific context of a study. This highlights the importance of generating New Zealand-specific findings and, in particular, working with Māori and different ethnic groups to explore dimensions of body communication and its role in providing culturally safe and culturally responsive body communication. Previous work has shown that, within health care encounters, therapeutic touch should be used respectfully when working with Māori and, in particular, permission must be granted before touching the head (Gleeson & Higgins, 2009). Similarly, there are nuances around how eye contact can have particular meanings for some Māori (Samuels et al., 2023). These are examples of important considerations in the context of New Zealand and demonstrate how body communication can have different meanings in different cultures.

Limitations

This review was limited by a lack of available research attending specifically to body communication. Many articles did not acknowledge or explain the influence of the researcher's presence on the patient–physiotherapist interaction. This makes it difficult to determine if results reflected the typical practice of physiotherapists, or if the physiotherapists altered their behaviour in response to being observed. Furthermore, insufficient detail of ethical procedures in most articles made it difficult to determine the impact of potential ethical challenges on the quality of the data collected.

Clinical implications

This review contributes to understandings of the integral role of communication in physiotherapy practice and provides indications of how physiotherapists may be able to implement a more person-centred approach to their interactions with patients. Physiotherapists should reflect on and self-monitor their body communication, the information transmitted by their bodies, and the effects of this communication on the patient (Hall et al., 2006). This suggestion aligns with research recommending that clinicians reflect on their communication and the way they use therapeutic touch (Gyllensten et al., 1999; Potter et al., 2003a; Roberts & Bucksey, 2007). Critical self-reflection and awareness of body communication would be a valuable strategy for physiotherapists to facilitate more intentional use of body communication in practice.

There has been a call for physiotherapists to be "able to use their skills for care, not only cure" (Nicholls & Holmes, 2012, p. 462). This corresponds with a growing concern about the profession's capacity to respond to the needs and preferences of patients, with patients wanting something *more* than just technically competent clinicians (Nicholls, 2017). In the current competitive health-care market, patients have more opportunities to explore alternatives to orthodox physiotherapy

practice (Gibson et al., 2018). Using body communication to support a more person-centred approach to care may help physiotherapists address the changing needs and preferences of those who access our services, encouraging patients to continue to attend physiotherapy and, by extension, ensuring the profession remains a valued and viable healthcare provider.

CONCLUSION

This review has shown that body communication played a central role in patient–physiotherapist interactions and could significantly influence the therapeutic process both positively and negatively. By remaining sensitive and responsive to body communication, physiotherapists may be able to develop a more person-centred approach to care. Conversely, inattention to body communication could be problematic, contributing to patient disengagement or dissatisfaction with treatment. Physiotherapists should therefore reflect on and self-monitor their body communication. Developing more nuanced and in-depth understandings of body communication in New Zealand, in which there is great cultural and communicative diversity, is essential to inform practice in the future.

KEY POINTS

1. Body communication conveys the physiotherapists' attention and interest towards patients and enables physiotherapists to convey that they are present in-the-moment.
2. Body communication enables patients to consent to and contribute to their own care. This is particularly valuable when verbal communication is challenging.
3. By being attuned to patient body communication, physiotherapists are able to guide physiotherapy intervention and support patients' understanding and engagement.
4. Body communication can positively or negatively influence the therapeutic relationship. Notably, therapeutic touch conveys technical skill and competence. When used unskilfully or insensitively, touch may undermine the patient's trust in the physiotherapist.

DISCLOSURES

No funding was obtained for this study. The authors have no conflicts of interest to declare that may be perceived to interfere with or bias this study.

PERMISSIONS

No permissions were required.

ACKNOWLEDGEMENTS

Nil.

CONTRIBUTIONS OF THE AUTHORS

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