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Questions directed to children with diverse communicative competencies in paediatric healthcare consultations

Janet Watts [a,*], Stuart Ekberg [b,c], Myra Bluebond-Langner [d,e], Richard Langner [d], Sara Fleming [f], Susan Danby [a,g], Katie Ekberg [h], Patsy Yates [c,i], Natalie Bradford [c,j], Angela Delaney [k], Anthony Herbert [k,l]

[a] School of Early Childhood and Inclusive Education, Queensland University of Technology, Brisbane City, Queensland, Australia
[b] School of Psychology & Counselling, Queensland University of Technology, Brisbane, Australia
[c] Centre for Cancer and Palliative Care Outcomes, Queensland University of Technology, Brisbane City, Queensland, Australia
[d] Louis Dundas Centre for Children's Palliative Care, University College London Great Ormond Street Institute of Child Health, London, UK
[e] Department of Sociology, Anthropology and Criminal Justice, Rutgers University, Camden, New Jersey, USA
[f] Palliative Care Australia
[g] Australian Research Council Centre of Excellence for the Digital Child, Queensland University of Technology, Brisbane City, Queensland, Australia
[h] School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Queensland
[i] Faculty of Health, Queensland University of Technology, Brisbane City, Queensland, Australia
[j] School of Nursing, Queensland University of Technology, Brisbane City, Queensland, Australia
[k] Paediatric Palliative Care Service, Children's Health Queensland Hospital and Health Service, Brisbane City, Queensland, Australia
[l] Centre for Children's Health Research, Queensland University of Technology, Brisbane City, Queensland, Australia

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ABSTRACT

Objective: This paper examines question-response sequences, in which clinicians asked questions to child patients who appear to interact using means other than the verbal mode of communication.
Methods: Conversation Analysis methods were used to study questions in 46 paediatric palliative care consultations. These questions were directed towards children who observably used vocalisations and embodied modes of communication (e.g., gaze, gesture and facial expressions) but did not appear to use the verbal mode.
Results: Most questions asked children either about their willingness and preferences for a proposed next activity, or their current feelings, experiences or intentions. Questions involved children by foregrounding their preferences and feelings. These questions occasioned contexts where the child's vocal or embodied conduct could be treated as a relevant response.
Conclusion: This paper demonstrates how questions are used to involve children in consultations about their own healthcare, and how their views come to be understood by clinicians and family members, even when children interact using means other than the verbal mode of communication.
Practice Implications: Questions can be asked of both children who do and do not verbally communicate. When asking questions, clinicians should be mindful of the modes of communication an individual child uses to consider how the child might meaningfully respond.

1. Introduction

There is widespread agreement that children's active participation is a priority in paediatric healthcare [1–3]. According to Article 12 of the United Nations (UN) Convention on the Rights of the Child, a child "capable of forming his or her own views" is accorded the right to "express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child." [4]. Although children's preferences may vary, many report wanting opportunities to express their views about their care, and for these views to be taken seriously [2,3,5]. In efforts to understand children's participation, research attention has

* Correspondence to: School of Early Childhood and Inclusive Education, Queensland University of Technology, Victoria Park Road Kelvin Grove, Queensland, 4059, Australia.
E-mail address: janet.watts@qut.edu.au (J. Watts).

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overwhelmingly focused on verbal contributions, with other modes of communication less commonly examined [6]. This limits scope to understand diverse forms of involvement, especially with children who do not communicate verbally, for reasons such as their age or condition. A notable exception is close analysis of therapeutic interactions demonstrating how children's diverse modes of expression, such as crying and screaming, can be treated as communicatively relevant by other participants [7]. There have been calls to expand understandings of children's participation to include the range of ways that children with different capacities can express their views and be heard [8–11]. This study responds to this call by focusing on interaction with children who do not appear to use the verbal mode of communication.

Many studies of children's participation in medical consultations have focused on verbal contributions [6,12]. Because paediatric healthcare is characterised by a three-party dynamic typically constituted of child patients, adult family caregivers and adult clinicians, it is readily possible for the child to be talked about rather than verbally interacted with [13–15]. In this dynamic, research shows how questions can be designed to include or exclude the child [16–19]. For example, there is evidence that clinicians calibrate questions to their assessment of the competence of verbal children, and so are more likely to ask questions of older children, and to ask children questions on particular topics, such as social, preparatory and experience questions [17,20]. When a clinician explicitly directs a question to a verbal child, there is negotiation between the child and parent as to who will answer the question [14,16,21]. In addition to questions asked of children who use the verbal mode of communication, there is some evidence that questions are also asked of children who do not seem to use this mode. A specific type of questioning known as 'tag questions,' asked by 'tagging' a question to the end of a declarative statement, transform this statement into something to be confirmed by the recipient (e.g., "you've grown a lot recently, haven't you" [22]. Tag questions are considered unlike other types of questions because they make possible, but do not require, a response [22–24]. Although there is evidence that these types of questions are used with children who do not appear to communicate verbally [22], it remains unclear whether other types of question can also be asked of these children.

2. Method

This study examines the involvement of child patients in paediatric palliative care consultations. Palliative care is provided to children with diverse conditions, ages and cognitive function, which means many children with life limiting conditions may not communicate verbally [22,25]. This study focuses on children who use embodied (e.g., gaze, gesture and facial expressions) [26] and vocal (e.g., crying, laughing) modes of communication but are not observed to use the verbal mode of communication within consultations.

2.1. Participants and data

Consultations involving family and clinicians were video-recorded in three palliative care services in Australia. A smaller group of children were observed to communicate using verbal, vocal and embodied modes of communication in recorded consultations (n = 7, 18.4%), while the majority were observed to use vocal and embodied modes (n = 31, 81.6%). The 31 children who appeared to interact using means other than the verbal mode of communication were aged from infancy to 17 years old. The primary diagnoses for most of these children were neurological conditions (n = 24, 77.4%), and the second most common primary diagnoses were metabolic conditions (n = 2, 6.5%). {{{Table 1}}}.

In total, 83 consultations were recorded, with 51 families and 56 clinicians participating. Analysis focused on 46 consultations involving child patients who communicated using vocal and embodied modes, a total of 31.0 h of data. Recordings were made in four consultation contexts: face-to-face outpatient (n = 19), telehealth (n = 6), inpatient (n = 13), and home visit (n = 8).

Table 1
Child participant age groups.

Age group	n (%)
Infancy (Under 12 months)	3 (9.7)
Toddlerhood (12–35 months)	3 (9.7)
Early childhood (36 months to 4 years 11 months)	6 (19.4)
Middle childhood (5 years to 11 years 11 months)	9 (29.0)
Adolescence (12 years to 17 years 11 months)	10 (32.3)

2.2. Analysis

The collected extracts were transcribed and analysed using Conversation Analysis methods [27–29], with the transcripts reviewed by a second author to ensure accuracy. Conversation Analysis involves close observation and analysis of recorded social interactions to develop an in-depth understanding of practices that participants use to interact with each other. The validity of the researchers' analysis is established by examining how participants themselves interpret and respond to the actions of their interactants [30]. Conversation Analysis uses a detailed transcription system, which allowed the range of ways that children participated (such as gesturally, posturally, haptically and vocally) to be represented in detail. The Appendix provides a list of transcription symbols, which capture linguistic, paralinguisic and embodied conduct.

The analysis focused on questions used by clinicians, directed to children who appear to interact using means other than the verbal mode of communication in the recordings. The analysis reported here focuses on one linguistic format, simple inverted interrogatives. These were chosen for analysis because they were the most frequent format for questions in the recorded data that were directed to children who appeared to always interact using means other than the verbal mode of communication. In a simple inverted interrogative, the subject follows the auxiliary verb or copula (e.g., "are you happy?"). When used as questions, these utterances are typically answered with a confirming or disconfirming response [31–34]. A collection was made of all interrogatives that met these criteria, within the context of the talk before and after the interrogative (58 extracts). If there were immediate repetitions or near repetitions of the same interrogative, these were considered part of the same extract.

3. Analysis

Most questions asked by clinicians to children and designed as simple inverted interrogatives related to the child's willingness to be involved in a proposed next activity or to their current feelings and experiences. Questions about the child's feelings (physical or emotional), experiences or intentions occurred in 28 extracts and were usually based on something observable about the child (e.g., *'Is it sore, sweety?'; 'Did you hear us Hannah?'*). Questions about the child's willingness or preferences related to activities that the clinician proposed doing with the child, and were found in 21 extracts (e.g., '*Will I get my guitar*?'; *'Can I have a look at your hands sweetheart*?'). Only two questions did not relate to the immediate context in the consultation (e.g., *'Do you still have your beautiful puppy dog?*'). The remaining seven questions focused on the child's immediate context, with a range of more idiosyncratic functions, mostly involving playful interaction with the child.

Across the collection, there were no instances where a child patient gave an ostensibly clear, immediate and observable confirming or disconfirming response (e.g., through a head nod or shake). The questions nevertheless contributed in important ways to involving children in the consultations. The analysis focuses on the two most common uses of

simple interrogatives in the data: to ask about the child's willingness or preferences to be involved in a proposed next activity, and to ask about the child's current feelings, experiences and intentions.

3.1. Asking about a child's willingness and preferences for a proposed activity

Clinicians used simple inverted interrogatives to ask children about their willingness to be involved in an activity that the clinician proposed to do with the child. Although children did not ostensibly respond immediately to any of these activity proposal interrogatives with explicit agreement or disagreement, clinicians and family members observed and responded to the child's ongoing displays of willingness – or unwillingness – to be involved in the activity. Although directed to the child, these questions made the clinician's intentions available to everyone present, which could enable multiple parties to contribute towards engaging the child in joint activity.

The focal question in Extract 1 occurs during Mum's description of the child's preference for her support worker (Eleanor)'s company and assistance with her daily routine (Eleanor is present at the consultation). The nurse, sitting opposite to the child and Eleanor, asks whether the child wants help getting into her chair. While the nurse initially assists the child in moving towards the chair, she subsequently stops, after the child displays a preference for Eleanor's help.

Towards the end of Mum's description of the child's preference for her support worker, the child begins to rise from the edge of the bed (line 15). The support worker remains seated next to the child, but positions her left hand to grip the underside of the child's left arm, while positioning her right hand against the child's back. The support worker uses her hands to support the child as she rises, and says softly 'Keep going,' (lines 15 and 20, Figure 1.1). Observing this, the nurse asks 'We should pop you in your chair? Do you want some help getting into your chair?' (lines 21–22), and moves towards the child to support her other arm (line 26, Figure 1.2). As she does this, the child tilts her head dramatically upwards towards the support worker, away from the nurse (line 27, Figure 1.3). The support worker moves in front of the child, taking both of her hands as the child steps closer to her chair (lines 27–28). The nurse releases the child's arm (line 31, Figure 1.4), and moves several metres away from the child, to stand at the side of the room (line 36), with her arms crossed (line 38). While this unfolds, Mum resumes her description of situations where the child prefers the support worker's assistance to that of her parents.

The nurse's questions suggest to the child that she might be assisted in moving to her chair, and the nurse displays an openness to helping (lines 21–22). The absence of a clear immediate display of agreement or disagreement by the child is initially treated as acquiescence, with the nurse moving to support the child's arm. When the child subsequently turns her head towards her support worker, the nurse treats this as displaying only partial agreement to the proposal – the child is willing to be helped to her chair, but ostensibly displays a preference to receive help from her support worker. By releasing the child's arm and moving away, the nurse shows that she accepts the child's preference. In this way, the adult participants show a delicate orientation to what the child's actions might be expressing, even as the activity progresses.

In Extract 2, occurring in a consultation in the family home, a clinician asks about a child's willingness to participate in a proposed next activity. In this case there is no observable response from the child. Instead, the question is attended to by the child's Mum, who helps involve the child. The proposed activity is looking at one of the child's ears during a physical examination. The child is sitting still with her eyes closed, and her head slightly tilted to the side. While her eyes are closed, she may not be asleep – about one minute earlier her Mum has told the nurse that the child is waking up.

Before Extract 2 begins, the talk around examining the child's body is in the third person (e.g., 'her heels are a little bit tender'), or involves tellings from the nurse to the child (e.g., 'just going to look at your other foot'). The nurse then moves to lean close to the child's right ear (lines 4–5, Figure 2.1). The child is leaning her head towards the left side, which makes her right ear physically available to the nurse, while blocking her left ear from view. The nurse asks 'Can I look at your other ear quickly?' (line 7, Figure 2.2), and begins to lean towards the child's left side. From near the beginning of this question (after 'Can I'), Mum anticipates the trajectory of the nurse's activity and turns the child's head to make her left ear accessible. The nurse continues to ask the question, and the child remains still, with her eyes closed. The nurse quickly looks at the child's left ear, confirming 'Yeah okay, they look good, yeah.' (line 10), and then steps backwards away from the child.

The nurse's question in Extract 2 accomplishes several actions simultaneously. It is directed to the child, so orients to the child's primary ownership and agency over her body, and treats her as a participant in the activity. This action allows an interactional context where the child could have indicated a negative response opposing having her ears looked at, or could have displayed more active involvement. In this interaction, where the child did not make a visible response, the question also contributed effectively to coordinating Mum's and nurse's actions, so that examining the child's ear was achieved quickly, with little disturbance to the child.

Extract 1 and Extract 2 showed clinicians using questions to ask child patients about their willingness and preferences for a proposed next activity. Both extracts showed these questions treating the children as participants with independent preferences, and creating interactional space where these preferences could be expressed. In the absence of any ostensible display by the children of their willingness or unwillingness to be involved (until line 27 in Extract 1, and throughout Extract 2), the progression of an activity by adults treated the child's non-responsiveness as assent. Nevertheless, while continuing the activities clinicians could observe whether the child subsequently acted in ways that made their preferences more apparent (as in the child turning her head towards her support worker in Extract 1). Beyond addressing the child, the questions additionally made the clinician's projected next actions explicit, which contributed to coordinating the actions of other adults in involving the child in the activity (as with Mum turning the child's head in Extract 2).

3.2. Questions about the child's current feelings, experiences or intentions

The second major use by clinicians of simple inverted interrogatives was to ask children about their current feelings or experiences, or the intention behind their observable actions. These questions were used to foreground and suggest an interpretation of the child's behaviour. Nevertheless, by directing these questions to the child, they are treated as the ultimate knower of their own feelings, experiences or intentions. These questions frequently transformed previous discussions between adults *about* the child, incorporating the child into the conversation as an active participant. For example, in Extract 3, a clinician asks the child a question during discussion between the adult participants of the possible meaning of the child's facial expression as a display of happiness. In addition to making the child an active participant, this question resolves the adults' discussion by appealing to the child's knowledge of his own feelings.

In Extract 3, the adult participants discuss the meaning of the child's facial expressions. Mum characterises the child's current expression as 'potentially his happy face' (line 1, Figure 3.1). Dad offers an alternative explanation, that the expression means 'I got something in my eye' (lines 7–9), and Mum explains her understanding of the difference between the child's 'happy face' and 'discomfort face' (lines 11–19, Figure 3.2). Mum and Dad each present their interpretations as based on their detailed observations of their son over time, although Mum describes their child's emotional expression as something that has been 'hard to figure out' (line 21).

One doctor (Dc2) reframes Mum's description (line 28), and then addresses the child directly, asking 'Are you happy?' (line 32), while

Extract 1 "Do you want some help getting into your chair?" [S1/F20/E01/2020-02-24/1:45:35] Age: 14;8 Primary diagnosis: Neurological condition

```
01  MUM:   Even like u:m; if Eleanor starts at se:ven; (0.3) an we're
02         up at [five; she'll just sta:y aslee:p.=#then E:leanor =
03  NUR:         [Yea:h;
04  MUM:   = walks through an it's +like [↑ye:p, let's go.↑
05  NUR:                               [°M:hm:::.°
    chi:                          +points diagonally upwards-->
06  MUM:   I'm rea:d[y.
07  SUP:            [h:+:heh;
    chi:               +touches sup's shoulder with other hand
08  MUM:   >Even if< Da:d goes in.+
    chi:                       -->+
09         (0.7)
10  MUM:   ↑Ru:de.*
    sup:          *holds child's forearm-->
11         (0.8)
12  NUR:   Mm that's *no:t very ni:[ce,
13  MUM:                           [It's no::t[:.*
14  NUR:                                      +[°hm[hmhm.°
15  SUP:                                           [#°Keep go:ing;°
    sup:          -->*pulls child's forearm down-*raises c's elbow-->
    chi:                                    +starts to stand-->
                                                  #Fig1.1
16         (0.6)
17  NUR:   he[heheh.
18  PAE:     [mmhm.
19         (0.2)
20  SUP:   *°Keep [go:ing,°
21  NUR:          [We should po:p you in your chai:r? Δ↑Dyou want
    sup:   --> continues supporting and lifting child's elbow-->
    nur:                                              Δstands-->
22         [some he:lp getting into your chai:r?
23  MUM:   [Yea::h.
24         (0.6)
25  MUM:   (          [   ,)
26  NUR:             #Δ[(s a gi:rl¿)
                      Δholds child's right elbow-->
                     #Fig1.2
27         * (0.8)*+#  (1.3)   *     (1.5)
    sup:   *stands*            *moves to stand in front of child-->
    chi:            +tilts head towards sup-->
                     #Fig1.3
28         *  (1.4)
    sup:   *holds both child's hands, walks backwards towards chair-->
    chi:   +child walks towards chair, left arm supported by sup
29  MUM:   ↑hmhmhm,
30         (0.7)
31  MUM:   An know,Δ she won't #let us (0.2) bru:sh her hai:r, only
    nur:           Δreleases child's right elbow
                              #Fig1.4
32         E:leanor Δ  ca:n,=.hh  Δ although *Timmy ca::n,
    nur:            Δnods slightlyΔ
    sup:                                    *begins to turn child->
33            (0.4)
34     NUR:   Yea::[h,Δ
35     MUM:        [Her- you:ngest bro:[ther,
36     NUR:                           [Mhm:,
       nur:            Δwalks towards side of room-->
       sup:            *lowers child into chair-->
37            (0.2)
38     MUM:   Cn brush her hai:r- brush herΔ  hai::r, Δ
       nur:                              -->Δfolds armsΔ
       sup:                                       -->*
```

Figure 1.1

Figure 1.2

Figure 1.3

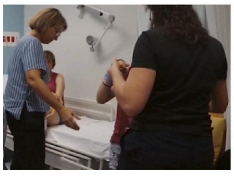

Figure 1.4

Extract 1. "Do you want some help getting into your chair?" [S1/F20/E01/2020–02–24/1:45:35] Age: 14;8 Primary diagnosis: Neurological condition.

Extract 2 "Can I look at your other ear quickly?" [S2/F40/E01_2020-09-24/4:30] Age: 8;3 Primary diagnosis: Neurological condition

```
01    MUM:   And we always put stuff between her (.) *knee:s,=
             >>--hand on top of child's head-->      *gaze to child->
      chi:   >>--sitting still, eyes closed-->
02    NUR:   ΔY[eah; yeah;
03    MUM:     [um when she's in be:d an; (0.2) [laying down;
04    NUR:                                      [ΔAn' 'er-
      nur:   Δ-------stands----------------------Δ-steps towards child->
05    NUR:   Δ#Her ea::rs?=
             Δ-leans close to child's right ear, hands near child's head->
              #Fig2.1
06    MUM:   =u::m; I thi:nk they're doing oka:y;
07    NUR:   °Yeah.°Δ can I: *look at your o:ther#ear *qui:ckly:?
      nur:       -->Δ----leans towards child's left ear-->
      mum:                  *--moves child's head----*
                                                  #Fig2.2
08           (0.3)
09    MUM:   S[o;  u:m;  we   haven't   had [any (.) rea:l =
10    NUR:    [Yeah oka:y, they look goo:d, [yeah.
11    MUM:   = i:ssue[s.
12    NUR:           [Yep.
13           Δ   (0.2)                              Δ
      nur:   Δreleases hands from child's shoulders Δ
14    NUR:   ΔYep.
             Δ--steps backwards, stands up straight, looking at child->
```

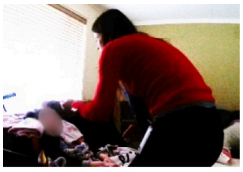

Figure 2.1

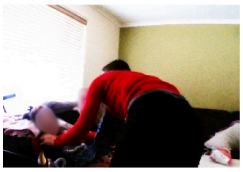

Figure 2.2

Extract 2. "Can I look at your other ear quickly?" [S2/F40/E01_2020–09–24/4:30] Age: 8;3 Primary diagnosis: Neurological condition.

rubbing the child on the shoulder. The child does not change his behaviour after the doctor's question, and Mum immediately responds 'That's good' (line 33). Mum's response does not make sense as an answer to the doctor's question, and instead treats the child as having given a positive answer (i.e., answering that he is happy), which she is assesses as being 'good'. Mum continues to address the child directly, asking him two additional questions, and then moves to a new topic of discussion.

With the child's emotions being characterised as difficult for others to discern, the doctor's question brings the child himself into the conversation as an active participant, and the one selected to clarify whether he is happy. The earlier conversation provides a context where no response can be treated as confirming that the child is happy, as the other participants have already established this explanation is most likely. The clinician's question also begins a longer spate of direct engagement with the child as the recipient of the talk, as Mum continues to address him. Appealing to the child brings the speculative talk about the child's emotional state to a close, treating the child as having ratified that he is 'happy'.

In Extract 3, adult participants collaborated in constructing a characterisation of the child's inner world together, with his Mum's response 'that's good' treating the child as having answered the doctor's question. In contrast, in Extract 4, a clinician asks a question that is not responded to by the child or the family member present (the child's Mum).

Extract 4 begins with Mum stating that the child is 'cranky' because 'we put the tube in again' (line 6). The nurse addresses the child with a contradiction of this claim (lines 10–11), followed by an alternative characterisation of the child's behaviour 'You just being quiet' (line 13), to which Mum responds 'Yeah.' (line 14). This response overlaps with the nurse raising doubt around the claim she has just made, with the question 'Or is that how you do your cranky.' (line 15, Figure 4.1). Mum immediately begins to speak on a new topic.

Unlike in Extract 3, the child's Mum does not collaborate in interpreting the child's behaviour as an answer to the question. This may be because there is something that could be interactionally difficult in Extract 4, with Mum making a somewhat negative assessment of the child (as 'cranky'), and of herself (as having made her daughter upset with her). The preferred response to self-deprecation in ordinary conversation is disagreement, which is routinely accomplished by saying something positive about the self-deprecator, rather than agreeing with their negative assessment [35]. In this case, however, there is conflict between this preference to disagree with self-deprecation, and the greater epistemic rights of family members to interpret the meaning of their child's behaviour. We see the nurse managing this difficulty by addressing her talk to the child, rather than to Mum, and modifying her initial contradiction of Mum's claim. While the nurse first puts forward 'being quiet' as an alternative to being 'cranky' (lines 10 and 13), she subsequently reframes 'being quiet' as a behaviour that could be enacting a 'cranky' attitude ('Or is that how you do your cranky') (line 15).

Extract 3-Extract 4 show clinicians using questions to engage with the child directly, asking whether observations of their behaviour have been correctly interpreted as displaying particular feelings, experiences or intentions. These questions brought the children into the adult conversation, treating them as active participants with greater access to, and rights to determine, the meaning of their observable behaviour. The involvement of other participants played an important role, however, in determining whether the child was treated as having given an answer to the question (as in Extract 3), or whether the conversation was progressed without pursuing an answer from the child (as in Extract 4).

4. Discussion and conclusion

4.1. Discussion

This paper has identified two recurrent uses of simple inverted interrogatives directed to children who were observed to communicate using vocal and embodied modes: 1) asking questions about the child's willingness and preferences for a proposed activity; and 2) asking questions about the child's current feelings, experiences or intentions. Both uses treat the child as "capable of forming his or her own views" and having a say on matters that affect them [4]. This builds on previous findings that tag questions can be directed to children who use diverse modes of communication in relation to the child's own knowledge or

Extract 3 "Are you happy?" [S1/F13/E01/2019-11-26/9:05] Age: 14;11 Primary diagnosis: Metabolic condition

01 MUM: An it's ha:rd to te:ll,*cause someti::mes, (0.6) like#this
*holds hand towards chi, palm up-->
#Fig3.1
chi: >>--corners of mouth outstretched, mouth slightly open,
eyes scrunched-->
02 potentially ψis his+ha:ppy fa:[ce;+
03 DC2: [Yea[:h.ψ
04 DC1: [M[m.
05 MUM: [And a:lso his;*(0.3) I
dc1: ψtouches child's shoulder ψ
chi: +slightly moves corners of mouth+
mum: -->*stands
06 think i[t's mo:re the ha:ppy fa]:ce from-=
07 DAD: [I got something in my eye,]
08 DAD: =khmhm *£ea:h; he- s::o:metimes 'e gets somethinf in 'is e:ye
mum: *both hands on child's knees, leans over child-->
09 an 'e- +kno:ws ['e can't get it. snh,=
10 DC1: [M:m.
Chi: +slightly drops corners of mouth, holds expression-->
11 MUM: =Yea:h; that was a hap-*I think- (.) the difference*between
*points to child's forehead *
12 a Δha:ppy [fa:ce an a:;
dc2: Δrubs child's shoulder-->
13 DAD: [heh;
14 (0.8)
15 MUM: An a::;
16 (0.7)
17 DC2: S[o:;
18 MUM: [Disco:mfort *face is [#the fo:rehead would be mo::re; *
19 DC1: [Khm khm khm; khm =
mum: *pinches child's forehead with two fingers*
#Fig3.2
20 DC1: = khm
21 MUM: *khhh; £↑it's been ha:rd [to (.) figure out* these things,£
----------steps backwards----------
22 DC2: [More-
23 MUM: .hh (.)*he s[ort of,*
24 DC2: [ΔO:h; like scru:n[ch- like more =
25 MUM: [Like fu- =
mum: *pinching motion in front of own forehead*
dc2: Δholds bent hand in front of own forehead-->
26 DC2: = [like w↑o:rri:ed,Δ but that was like, that] was just =
27 MUM: = [y e a :: h; his bro:w would be fu:rrowed.]
dc2: -->Δrubs child's shoulder-->
28 DC2: = a [smi:leΔ with the mouth.]
29 MUM: [Whereas that ws;] like a; yea[:h.
30 DC2: [°Y↑ea::h.°
dc2: -->Δ
31 (0.2)
32 DC2: ↑**ARE YOU ΔHA:PPY?**
Δrubs child's shoulder-->
33 MUM: ↑Tha:t's g↑oo[d¿
34 DC1: [H:m.
35 (0.5)
36 MUM: Did I say something f↑u:nny;
37 (0.2)
38 MUM: I don't think I di:d.Δ
dc2: -->Δ
39 (2.0)
40 MUM: E:verything's fu:nny hey?
41 (0.2)
42 DC2: hhheh hehe[heh
43 MUM: *[Wha::t e:lse can I te:ll you:.
*looks down towards lap-->>

Figure 3.1

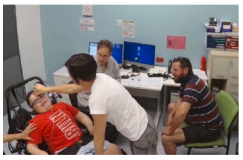

Figure 3.2

Extract 3. "Are you happy?" [S1/F13/E01/2019–11–26/9:05] Age: 14;11 Primary diagnosis: Metabolic condition.

Extract 4 "Or is that how you do your cranky?" [S1/F14/E03/2021_01_06/4:08] Age: 10;3 Primary diagnosis: Neurological condition

```
01   MUM:   Yea:h; so anyway, jus one a those da:ys again¿ (0.2)[but;
02   NUR:                                                      [Mhmhm;
     mum:   >>--gaze is towards child, caressing child's hand-->
     nur:   >>--gaze is towards child-->
03          (0.5)
04   MUM:   ptch .hh such is li:fe¿
05          (1.0)
06   MUM:   She's cra:nky cause ↓we put *the tube in again*, so
                                        *---gaze to doc---*
07          she:'[s (.) not looking at me.
08   DOC:        [Mm.
09          (0.2)
10   NUR:   You're not sho:wing us you're *too: cranky though =
     mum:                                *gaze to nur-->
11   NUR:   = ΔI don't thi:nk,*
              Δshakes head-->
     mum:                  -->*leans over child-->

12          (0.4)
13   NUR:   YouΔ just being qui:et.Δ
            -->Δ-----nods head-----Δ
14   MUM:   Yea[:h.
15   NUR:      [#£Or is that how you: do you:r cra:nky.£
                #Fig4.1
16   MUM:   =[.hh *↑Yea:h so,
17   NUR:    [hmhmhmhm
     mum:         *stands up straight
```

Figure 4.1

Extract 4. "Or is that how you do your cranky?" [S1/F14/E03/2021_01_06/4:08] Age: 10;3 Primary diagnosis: Neurological condition.

experience [22], showing how questions which do typically require a response are also used with children who appear to interact using means other than the verbal mode of communication.

The two recurrent uses of simple inverted interrogatives correspond with three facets of relationships that are omnirelevant in social interaction: knowledge, power, and emotion [36]. Questions about a child's willingness and preferences treat the child as having rights to determine action. When these questions are followed by an opportunity for the child to respond, a child's vocal and embodied conduct can be treated as a response to the question, and their willingness or preference accommodated accordingly. The clinicians' actions provide tangible evidence of one way that children who do not communicate verbally can be afforded opportunities to express views in matters that affect them, and of their views being given 'due weight' by adults [4]. With most research focusing on verbal contributions of children in healthcare settings [6], this paper demonstrates the importance of considering the range of communicative modes children use to express their views. Although both parents and clinicians report the conduct of children who appear to interact using means other than the verbal mode of communication [37–39], this study identifies in actual clinical practice how clinicians and families orient to and participate in attending to the child's involvement in the consultation.

Questions directed to children about their feelings orient to the child's ownership of that particular experience [32,40–42]. In the cases analysed for this study, clinicians' questions frequently followed talk between adults about the child's feelings, experiences and intentions. Use of child-directed questions transforms interaction about the child to interaction that involves the child, and offers the child possible ways of expressing their experience [43]. While children did not necessarily respond to these questions, by asking questions an adult can demonstrate an attentiveness to the child's feelings as being something that only the child can directly experience.

The use of these questions to accomplish three omnirelevant facets of relationships highlights how children can be treated as competent parties to their interactions [44–47]. As has been found in other settings where participants have differing communicative resources [39,48–50], understandings of the children's responses were grounded in the interactional context, with the potential for an answer to be inferred from the child's vocal and embodied conduct, sequenced after the clinician's question and in the context of family members' surrounding talk. Because of their contextual grounding, these types of questions may be particularly suited for children who appear to interact using means other than the verbal mode of communication, and further comparative analysis with questions directed to children who use the verbal mode of communication is needed to determine this.

4.2. Conclusion

The type of questions examined for this study are specifiable ways clinicians directly incorporate into consultations children who appear to interact using means other than the verbal mode of communication. These findings highlight ways children's rights to participate actively in their own care can be accomplished. For children who exclusively use communication modes other than verbalisation, interactional settings that give prominence to the child's feelings and preferences support the child to be an active participant.

4.3. Practice Implications

Children of diverse ages and communicative capabilities can be asked questions by clinicians, with mindfulness as to the modes of communication that the child uses. Questions about the child's current feelings, experiences or intentions, and about the child's willingness and preferences for a proposed activity may be particularly well-suited to children who are not expected to give a verbal answer, because this creates scope to treat diverse modes of conduct (e.g. gaze, facial

expressions, posture) as a response. Family members can be uniquely positioned to help clinicians understand how children respond to their questions.

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CRediT authorship contribution statement

Fleming Sara: Investigation, Writing – review & editing. **Danby Susan:** Funding acquisition, Supervision, Writing – review & editing. **Bluebond-Langner Myra:** Funding acquisition, Writing – review & editing. **Langner Richard:** Conceptualization, Writing – review & editing. **Ekberg Katie:** Data curation, Project administration, Writing – review & editing. **Yates Patsy:** Funding acquisition, Writing – review & editing. **Bradford Natalie:** Funding acquisition, Writing – review & editing. **Watts Janet:** Conceptualization, Data curation, Formal analysis, Methodology, Project administration, Visualization, Writing – original draft. **Ekberg Stuart:** Funding acquisition, Supervision, Validation, Visualization, Writing – review & editing. **Delaney Angela:** Investigation, Writing – review & editing. **Herbert Anthony:** Funding acquisition, Investigation, Writing – review & editing.

Declaration of Competing Interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Author AH was a participant in the study.

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Appendix. : Transcription conventions

wor-	Hyphens mark a cut-off of the preceding sound.
[	Left bracket indicates overlap onset.
]	Right bracket indicates where the overlapped speech ends.
=	Continuation of the same turn.
(0.3)	Number in second and tenths of a second indicates the length of a silence.
(.)	Brief silence (less than 0.2 seconds) within or between utterances.
wo::rd	Colons represent a sound stretch of immediately prior sound.
word	Underline indicates emphasis.
↑	Shifts into high pitch.
↓	Shifts into low pitch.
WORD	Loud talk is indicated by upper case.
°word°	Quieter talk is placed between degree signs.
#word#	Hashes indicate creaky voice.
£word£	Pound signs indicate smile voice.
word?	A question mark indicates a rising intonation.
word¿	An inverted question mark indicates a substantial rise to mid/mid-high end of the speaker's range.
word,	A comma indicates a continuing, slightly rising intonation.
word;	A semicolon indicates a continuing, slightly falling intonation.
word.	A full stop indicates falling, final intonation.
word!	An exclamation mark indicates an animated tone.
>word<	Talk is speeded up.
<word>	Talk is slowed down.
.hhh	A dot prior to h indicates an in-breath.
hhh	Indicates an out-breath.
()	The talk is not audible.
(word)	Uncertain hearing, transcriber's best guess at the speech.
((walking))	Annotation of non-verbal activity.

Descriptions of embodied actions between two identical symbols, as follows

+	+	Child action.
*	*	Parent/guardian or support worker action.
ψ	ψ	Doctor action.
Δ	Δ	Nurse or Doctor 2 action.

Conventions for embodied actions

–>	The action continues from a previous line.
–>	The action described continues across subsequent lines.
>>	The action begins before the fragment's beginning.
–>>	The action continues after the fragment's end.
——	Duration of action.

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