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Title

Family-clinician interactions in children's health services: A secondary analysis of clinicians' practice descriptions

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Abstract

Background: Effective family-clinician interactions are important for good health outcomes. Two types of interactions are consistently recommended: relational (e.g. listening, empathy, and respect) and participatory (e.g. shared decision making, planning and problem solving); but there is little specific guidance on how to implement these interactions in practice.

Objective: To identify specific, practice-based examples of relational and participatory family-clinician interactions in one domain of children's healthcare services (specifically occupational therapy).

Design: A qualitative secondary analysis was used. The data consisted of a list of clinicians' self-reported practice actions (n=217) and direct quotes describing their content and context. The practice actions were categorised into a range of relational and participatory family-centred interactions by using a modified framework analysis.

Results: Of the 217 practice actions, the majority (121 [55.76%]) did not describe examples of clinicians implementing family-clinician interactions. Of the remaining practice actions, 19 (8.76%) described 'relational' interactions (e.g. *'Listen to carer', 'Gather perspectives from others'*); 47 (21.66%) described 'participatory' interactions (e.g. *'Identify the client's goals and priorities', 'Allow the client to choose'*); 2 (0.92%) described both (*'Take guidance from carers'*); and 28 (12.9%) were excluded from the analysis.

Discussion and conclusions: A range of relational and participatory interactions were identified. Descriptions of participatory interactions were more frequent than descriptions of relational interactions, and overall family-clinician interactions were described less frequently than other practice actions. The specific, real-life examples

of different types of interactions identified in the study can be used as a basis for reflection on practice and developing more specific guidance.

Background

How clinicians provide care is as important as *what* they provide.[1,2] Clinicians' interactions with patients are central to high quality,[3] effective health care,[4] influencing health outcomes including patient satisfaction,[5-9] treatment adherence,[7,9] patient physical and psychosocial health,[7,9] and carer well-being.[6] Understanding issues related to patient-clinician interactions (e.g. communication, choice and respect) are important research priorities both for patients and providers.[10]

The quality of interactions between clinicians and families is particularly important in children's healthcare services. Approximately 26% of children, or around one in four families, are affected by chronic conditions requiring healthcare.[11] For these families, failing to deliver effective care, of which good quality family-clinician interactions are a central feature, has particularly high costs in terms of reduced quality of life for the child[12,13] but also reduced well-being in the wider family.[6,14]

Previous studies have suggested that good quality family-clinician interactions may not be consistently implemented in children's services.[15-18] This may, at least in part, relate to a lack of specific guidance on what constitutes good quality interactions. Current guidance consists primarily of general principles[19] and there are few detailed descriptions of how clinicians have applied these principles in actual day-to-day practice.[20] Detailed descriptions of specific actions that clinicians can take to implement good quality family-clinician interactions would be likely to be more helpful and more effective than general, broad-level principles in improving their consistent implementation in practice.[7, 21]

Objective

The present study aimed to identify specific, practice-based examples of clinicians implementing family-clinician interactions in one domain of children's healthcare services (specifically occupational therapy). The examples were identified in relation to the principles of good quality interactions outlined in a prominent conceptual framework (see below).

Conceptual framework

Several frameworks have been used to conceptualise patient/family-clinician interactions. Four prominent frameworks include: (i) family-centred service; [15,22] (ii) behavioural approaches; [7] (iii) patient involvement in decision making; [9,23,24] and (iv) patient-centred communication. [25] A common proposition underpinning all four frameworks is that good quality interactions involve two distinct aspects, both of which are important for health outcomes:

(1) <u>relational interactions</u> concerned with clinicians demonstrating listening, empathy, respect and trust towards families and establishing caring relationships where families feel they are understood and treated as capable; and

(2) <u>participatory interactions</u> concerned with clinicians meaningfully engaging families in decision making, planning and problem solving and developing families' capabilities to achieve their desired goals.

Conceptualising interactions in this way provides a general framework for exploring family-clinician interactions. The present study focused on the principles of relational and participatory family-clinician interactions described in one of the four prominent frameworks, family-centred service. The family-centred service framework was used as it is commonly recommended as best practice for children's healthcare services, [19,26] including the study domain (i.e. children's occupational therapy). [27,28]

Design

A qualitative secondary analysis was conducted, using an existing data set containing family-clinician interactions elicited from children's occupational therapists. The secondary analysis had approval from the Research Ethics Committee (REC) of York St. John University (REC ref: UC/10/6/11/JM dated 10 June 2011). The primary study, in which the existing data set had been generated, had been approved by a National Health Service (NHS) REC (REC ref: 07/S0801/55) that confirmed no further approval was required for the secondary analysis in the present study. The researcher (NK) responsible for the data set ensured its appropriate use and protection [29] by maintaining anonymity and secure storage at all times.

Setting and participants

The data set used for the secondary analysis had been generated in a study into the practice of children's occupational therapists in six community healthcare services of various sizes and geographical locations in NHSScotland. [30,31] In that primary study (led by NK), a random sample of 25 senior occupational therapists had participated in semi-structured interviews in which they had provided descriptions of their practice actions in 47 care processes. The clinicians worked at least two days per week with children living at home and had been qualified for median 12 years (IQR = 9-20) and working in paediatrics for 8 years (IQR = 6-13).

The Data

The primary study had involved: (1) each clinician describing two therapy processes and reporting their practice actions within those processes (one 'successful' and one 'unsuccessful' case); [30] and (2) researchers coding the interview transcripts using a quantitative content analysis. [31] This had resulted in a list of clinicians' self-reported practice actions (n=217) (e.g. *Make judgements about carer's support needs')* and the direct clinician quotes related to these practice actions (e.g. *"We felt this mother*

and father but especially mother needed support…"). [31] The 217 practice actions and related clinician quotes were clustered around six dimensions of the care process: assessment, setting goals and planning actions, treatment, review, discharging and managing processes and relationships. This list of practice actions and related quotes formed the data set for the present study. Table 1 (online appendix) provides an overview of the structure of the data set and examples of clinicians' practice actions and related quotes.

The *suitability*, *accessibility* and *quality* [32] of the data set were assessed to establish whether it was appropriate for the secondary analysis. Table 2 (online appendix) summarises the outcome of this assessment. The data set was *suitable* as (i) there was a good correspondence between the context, aims and method of the primary study from which the data set had been generated and the secondary analysis; and (ii) the content of the data set appeared relevant to the conceptual framework for the secondary analysis (i.e. both the data set and the conceptual framework contained family-clinician interactions). The data set was *accessible* as it was (i) complete and clearly preserved (Heaton 2004) and (ii) stored in an easily accessible format and structure in qualitative data analysis and management software (NVivo). [31] Finally, the *quality* of the data set had been assured through (i) use of established trustworthiness strategies [33] to conduct the interviews with clinicians (e.g. a representative sample of clinicians, open-ended interview questions, dense description of methods and results); [30] (ii) use of strategies to ensure the validity and reliability of the quantitative content analysis [34] (e.g. coding of the data by two independent researchers); [31] and (iii) the methods for conducting the interviews with clinicians [30] and generating the list of practice actions [31] had been peer reviewed both as part of funding and publication processes.

Data Analysis

The data were analysed using a modified framework analysis. [35] The family-centred service framework [15,22] (see Conceptual Framework above) formed the initial coding framework or 'indexing' structure [35] for the analysis (see Table 3). In order to enable the use of the family-centred service framework as coding categories, the lead researcher (JM) generated a list of principles of relational and participatory family-clinician interactions. The list was generated from literature on family-centred services. [1,6,8,22,36,37]

The analysis consisted of four stages and critical discussion [38] between researchers (JM & NK) at each stage:

Stage 1: The lead researcher (JM) 'familiarised' [35] herself with the data set by studying the list of 217 practice actions (e.g. *'Make judgements about carer's support needs'*) and considering the correspondence between the practice actions and the principles of relational and participatory family-clinician interactions in the coding framework. Attention was paid to practice actions that were unclear or that required further information from the related clinician quotes. The researcher critically discussed and clarified the meanings of the practice actions and the structure of the data set with the researcher already familiar with it (NK).

Stage 2: The lead researcher (JM) re-reviewed the list of 217 actions, this time with their related quotes. Through a process of 'sifting and sorting', [35] the practice actions in the data set were considered against four possible categories: (i) 'Neither relational nor participatory'; (ii) 'Relational'; (iii) *'*Participatory'; *or* (iv) 'Unclear – requires further discussion'. The critical discussion (JM & NK) focused on refining the coding framework and ensuring consistency in the coding. It was also agreed that coding decisions would be independent of the number of quotes related to a specific action;

i.e. if at least one related clinician quote corresponded with a principle of relational or participatory interactions in the coding framework, then the action was coded as relational or participatory.

Stage 3: The lead researcher (JM) again re-reviewed the list of 217 practice actions with their related quotes to complete the coding of the actions. Previous coding was revised where required. The critical discussion (JM & NK) focused on the practice actions identified as 'unclear'. The content and context of the quotes related to these practice actions were discussed with an aim of reaching an agreement on the coding. By the end of this stage, 189/217 practice actions (87%) had been coded and the two researchers agreed on 80% of the coding decisions.

Stage 4: The first researcher (JM) finalised the coding of the practice actions based on her enhanced understanding of the data set and the conclusions from the critical discussions. The practice actions coded as relational and/or participatory and one direct clinician quote related to each practice action were arranged in two 'charts' [35] where they were presented as illustrative, practice-based examples of clinicians applying the principles of relational and participatory family-clinician interactions.

Throughout the analysis, debriefing in research supervision (JM & CB); critical discussion of coding decisions (JM & NK); an audit trail of coding decisions; dense description of methods and results; use of clinician quotes to generate and present the results; and peer examination of the method and results (JM, NK & CB) were used as established strategies to maximise trustworthiness (dependability, confirmability and credibility). [33]

Results

Of the 217 practice actions, the majority (121 [55.76%]) were coded as 'Neither relational nor participatory' interactions. These practice actions did not describe specific examples of clinicians applying the principles of relational or participatory interactions. Instead they were examples of clinicians applying their technical expertise (e.g. use of standardised assessments), making decisions separately from the family (e.g. about where to carry out treatment or when to discharge the child from the service) or interacting with other professionals (e.g. teachers in the child's school).

Nineteen (8.76%) practice actions were coded as 'Relational' (see Table 4). These practice actions described clinicians applying principles of relational interactions including listening (e.g. *'Listen to carer'*), empathy (e.g. *'Try to understand the client's point of view'*), respect (e.g. *'Accepted the carer's view'*), trusting families (e.g. *'Gathers perspectives from others'*), being genuine (e.g. *'Establish a relationship'*), offering positive feedback (e.g. *'Illustrates child's progress to carer'*) and supporting and considering family members (e.g. *'Support carer'*). No examples were identified to describe clinicians applying the principles of being warm and caring and accepting diversity.

Forty-seven (21.66%) practice actions were coded as 'Participatory' (see Table 5). These described clinicians applying principles of participatory interactions including communicating (e.g. *'Communicate with carer'*), providing information (e.g. *'Inform carer about re-referrals'*), facilitating family choice and decision making (e.g. *'Allow the client to choose or go along'*), facilitating active collaboration with families (e.g. *'Identify the client's goals and priorities'*), and providing accessible, individualised, flexible services (e.g. *'Be flexible'*). Practice actions were identified that described clinicians applying the principle of facilitating families to develop *new* knowledge and

skills (e.g. *'Demonstrate'*); however there were no examples identified that described clinicians applying the principle of facilitating families to use *existing* knowledge and skills. No examples were identified that described clinicians applying the principle of encouraging use of community supports.

Two (0.92%) practice actions were coded as 'Both relational and participatory'. The practice action *'Takes guidance from carers'* was an example that described clinicians applying the relational principle of trusting families by asking them what they thought would make a difference, as well as the participatory principle of facilitating active collaboration with parents by taking their guidance on what to do next. The practice action *'Provide activity ideas and suggestions'* was an example that described clinicians applying the relational principle of supporting families by taking the time to get to know them, as well as the participatory principle of facilitating families to develop new knowledge and skills by going through activity suggestions with the parent and child.

The remaining practice actions (28 [12.9%]) were excluded from the analysis because they related to clinicians' reports of practice actions they had *not* taken. For example, the practice action *'Discharge the child - Negative'* related to clinicians' descriptions of situations where they had *not* discharged the child.

Discussion

The present study identified a range of specific examples, embedded in day-to-day practice situations, of clinicians implementing family-clinician interactions. The identified examples describe clinicians applying many of the principles of good quality relational and participatory family-clinician interactions, as defined in literature related to family-centred service.

The main limitation of the study is that the data set was based on clinicians' self-report. However the wide range of descriptions in the data set of *how* clinicians provided care to families as well as *what* care they provided meant that the data set was suitable for the objectives of the present study and offered an insight into clinicians' interactions with families in day-to-day practice. The involvement of the primary researcher (NK) in the secondary analysis strengthened the confirmability of the analysis and the credibility of the results by providing detailed contextual knowledge of the data set and scrutiny of how the data set was used to meet the objectives of the secondary analysis.

The results suggest that the majority of clinicians' practice actions may not be related to applying principles of family-centred, relational and participatory interactions but to other aspects of care provision. Of the practice actions that did relate to such interactions, the majority focused on supporting families to participate in care provision by engaging them and developing their capabilities (i.e. participatory interactions). Fewer actions focused on relating to families by understanding and responding to their perspectives and treating them as capable (i.e. relational interactions). Whilst this is contrary to results in some of the previous studies which found that participatory interactions were implemented less often than relational interactions, [15] the results of the present study are not unique. Other studies have also suggested that clinicians have been more focused on participatory interactions, for example by speaking more about their role in providing information and less about their role as a caring person [39] and by emphasising the importance of families being involved in and taking responsibility for their child's care but having limited responsiveness to families' diverse needs and capacities. [17]

The relatively lesser emphasis on relational interactions suggested in the results of the present study may indicate that the clinicians' practice actions were directed

more towards trying to actively involve families (i.e. participatory interactions) and less towards understanding and responding to families' perspectives, values and desired outcomes (i.e. relational interactions). This finding relates to wider criticisms suggesting that clinicians' efforts to involve parents has been based on a flawed interpretation that parental involvement equates to parental responsibility, which has led to a shifting of responsibility away from healthcare services and onto families by putting pressure on parents to be responsible for delivering and coordinating their child's interventions, regardless of parents' ability or desire to take on this role. [17,39-41] Relying primarily on participatory interactions to achieve parent involvement may have limitations as relational interactions have also been proposed in wider healthcare literature as important for achieving good quality patient involvement and enabling patient autonomy. [23,42]

Implications for practice and research

In terms of implications for practice, the results suggest that clinicians and clinical teams may benefit from further critical reflection on:

i)   what active family involvement consists of and looks like in practice;

ii) what actions they take to implement active family involvement, especially how they explore and gain understanding of families' perspectives, values and desired outcomes; and

iii) how they respond to families' perspectives, values and desired outcomes once these have been identified.

The specific actions identified in the present study can be used as a starting point for discussion, as can existing literature on, for example, provision of information and support,[6] negotiation of roles and responsibilities between clinicians and families,[40] and identification of shared goals with families.[31,43]

The results also indicate that there may be a need for further consideration of whether there is sufficient active involvement of children and young people

themselves, rather than just their parents. The majority of the examples from the data related to parents, and clinical teams may benefit from further exploration of tools that can be used to interact directly with children and young people (e.g. Talking Mats,[44] the Children's Assessment of Participation and Enjoyment,[45] and Preferences for Activities of Children[46]).

In terms of implications for research, the results provide further support for other studies that suggest there is a need to improve the family-centredness of health services.[14,47] Some promising interventions have been developed;[43] future research should evaluate their effectiveness in enhancing clinicians' interactions with families.

Conclusion

This study is a first step towards providing clinicians with detailed descriptions of the specific actions they can take to implement good quality family-clinician interactions in their day-to-day practice. The results suggest that clinicians apply many of the principles of relational and participatory interactions in their daily practice actions. However the majority of their practice actions may not be related to implementing good quality family-clinician interactions and, amongst those that are, participatory interactions may be emphasised more than relational interactions. Previous research [(7,8,20,31)] has indicated that both relational and participatory interactions feature in successful and/or patient/family-centred care processes. Therefore clinicians may benefit from further reflection on the quality of their interactions in terms of the relative balance of relational and participatory aspects and, in turn, on how the quality of their interactions with families may contribute to health outcomes.

References

1   Trivette CM, Dunst CJ. Capacity-building family-centred helpgiving practices. Winterberry Press 2007; 1(1): 1-10.

2   Entwistle V, Prior M, Skea ZC, Francis JJ. Involvement in treatment decision-making: Its meaning to people with diabetes and implications for conceptualisation. Social Science and Medicine 2008 1; 66(2): 362-375.

3   Maripuu M, Danzon M. The Tallinn charter: health systems for health and wealth. World Health Organization 2008: 1-5.

4   Fischer M, Ereaut G. Can changing clinician-patient interactions improve healthcare quality? Health Foundation 2011: 1-60.

5   Ley P. Satisfaction, compliance and communication. British Journal of Clinical Psychology 1982; 21(4): 241-254.

6   King G, King S, Rosenbaum P, Goffin R. Family-centered caregiving and well-being of parents of children with disabilities: linking process with outcome. Journal of Pediatric Psychology 1999; 24(1): 41-53.

7   Michie S, Miles J, Weinman J. Patient-centredness in chronic illness: what is it and does it matter? Patient Education and Counselling 2003; 51(3): 197-206.

8   Dunst CJ, Trivette CM, Hamby DW. Meta-analysis of family-centered helpgiving practices research. Mental Retardation and Developmental Disabilities Research Reviews 2007; 13(4): 370-378.

9   Joosten EAG, DeFuentes-Merillas L, de Weert GH, Sensky T, van der Staak CPF, de Jong CAJ. Systematic review of the effects of shared decision-making on patient satisfaction, treatment adherence and health status. Psychotherapy and Psychosomatics 2008; 77: 219-226.

10   Christian S, Anderson S. Review of research needs and priorities. National Institute for Health Research 2007.

11   Van Cleave J, Gortmaker SL, Perrin JM. Dynamics of obesity and chronic health conditions among children and youth. Journal of the American Medical Association 2010; 303(7): 623-630.

12   Seid M, Varni JW, Cummings L, Schonlau M. Journal of Pediatrics 2006; 149(3): 354-361.

13   Feldman Ehrmann D, Swaine B, Gosselin J, Meshefedjian G, Grilli L. Is waiting for rehabilitation services associated with changes in function and quality of life in children with physical disabilities? Physical and Occupational Therapy in Pediatrics 2008; 28(4): 291-304.

14   Raina P, O'Donnell M, Rosenbaum P, Brehaut J, Walter SD, Russell D, et al. The health and well-being of caregivers of children with cerebral palsy. Pediatrics 2005; 115(6): e626-e636.

15   Dunst CJ, Trivette CM. Measuring and evaluating family support programe quality. 2005: 75.

16   Siebes RC, Ketelaar M, Gorter JW, Wijnroks L, De Blécourt, ACE, Reinders-Messelink H, et al. Transparency and tuning of rehabilitation care for children with cerebral palsy: a multiple case study in five children with complex needs. Developmental Neurorehabilitation 2007; 10(3): 193-204.

17   Dodd J, Saggers S, Wildy H. Constructing the 'ideal' family for family-centred practice: challenges for delivery. Disability & Society 2009; 24(2): 173-186.

18   Darrah J, Wiart L, Magill-Evans J, Ray L, Andersen J. Are family-centred principles, functional goal setting and transition planning evident in therapy services for children with cerebral palsy? Child: Care, Health and Development 2012; 38(1): 41-47.

19   Kuo DK, Houtrow AJ, Arango P, Kuhlthau KA, Simmons JM, Neff JM. Family-centred care: current applications and future directions in pediatric health care. Maternal and Child Health Journal 2012; 16(2): 297-305.

20   Di Rezze B, Law M, Eva K, Pollock N, Gorter JW. Therapy behaviours in paediatric rehabilitation: essential attributes for intervention with children with physical disabilities. Disability and Rehabilitation 2013; 1-7.

21   Craig P, Dieppe P, Macintyre S, Michie S, Nazareth I, Petticrew M. Developing and evaluating complex interventions: new guidance. Medical Research Council 2008.

22   Rosenbaum P, King S, Law M, King G, Evans J. Family-centred service. Physical and Occupational Therapy in Pediatrics 1998;18(1): 1-20.

23   Entwistle VA, Watt IS. Patient involvement in treatment decision-making: the case for a broader conceptual framework. Health Expectations 2006; 63(3): 268-278.

24   Makoul G, Clayman ML. An integrative model of shared decision making in medical encounters. Patient Education and Counselling 2006; 60(3): 301-312.

25   Street RL, Makoul G, Arora NK, Epstein RM. How does communication heal? Pathways linking clinician-patient communication to health outcomes. Patient Education and Counselling 2009; 74(3): 295-301.

26   Department of Health. Disabled child standard, national service framework for children, young people and maternity services. 2004.

27   Rodger S, Keen D. Child- and family-centred service provision. In: Rodger S. (ed.) Occupation-centred practice with children: A practical guide for occupational therapists. Oxford: Wiley-Blackwell; 2010. p. 45-74.

28   Case-Smith J, O'Brien JC (eds.) Occupational therapy for children. 6th ed. Maryland Heights, Missouri, United States: Elsevier; 2010.

29   Department of Health. Research governance framework for health and social care. 2005.

30   Kolehmainen N, Francis JJ, McKee L, Duncan EAS. Beliefs about responsibilities, the aims of therapy and the structure of the therapy process: a qualitative study of caseload management issues in child health

occupational therapy. Child: Care, Health and Development 2012; 38(1): 108-116.

31   Kolehmainen N, Duncan EAS, Francis JJ. Clinicians' actions associated with the successful patient care process: a content analysis of interviews with paediatric occupational therapists. Disability Rehabilitation 2013; 35(5): 388-396.

32   Heaton J. Reworking qualitative data. United Kingdom: Sage Publications Ltd.; 2004.

33   Lincoln Y, Guba E. Naturalistic inquiry. Newbury Park, CA, United States: Sage; 1985.

34   Krippendorff K. Content analysis: an introduction to its methodology. 2nd ed. Thousand Oaks, California, United States: Sage Publications Incorporated; 2004.

35   Ritchie J, Spencer L. Qualitative data analysis for applied policy research. In: Bryman A, Burgess RG. (eds.) Analyzing qualitative data. London: Routledge. p. 173-194.

36   King S, Rosenbaum P, King G. The measure of processes of care: a means to assess family-centred behaviours of health care providers. 1995.

37   Dunst CJ, Boyd K, Trivette CM, Hamby DW. Family-oriented program models and professional helpgiving practices. Family Relations 2002; 51(3): 221-229.

38   Greenhalgh T. How to read a paper: the basics of evidence-based medicine. 3rd ed. London, United Kingdom: John Wiley & Sons Ltd; 2006.

39   MacKean GL, Thurston WE, Scott CM. Bridging the divide between families and health professionals' perspectives on family-centred care. Health Expectations 2005; 8(1): 74-85.

40   Shields L, Pratt J, Hunter J. Family-centred care: a review of qualitative studies. Journal of Clinical Nursing 2006; 15(10): 1317-1323.

41. Breen LJ. Early childhood service delivery for families living with disability: disabling families through problematic implicit ideology. Australasian Journal of Early Childhood 2009; 34(4): 14-21.

42. Entwistle VA. Enabling consultations: the facilitative significance of relational aspects of interpersonal communication. Health Expectations 2010; 13(1): 1-3.

43. Kolehmainen NMacLennan G, Ternent L, Duncan EAS, Duncan EM, Ryan S, McKee L, Francis J. Using shared goal setting to improve access and equity: a mixed methods study of the Good Goals intervention in children's occupational therapy. Implementation Science. 2012, 7:76. doi: 10.1186/1748-5908-7-76

44. MacK et al – talking mats

45. King G, Law M, King S, Hurley P, Hanna S, Rosebaum P, Young N. The Children's Assessment of Participation and Enjoyment (CAPE) and the Preferences for Activities of Children (PAC). San Antonio, TX: Harcourt Assessment, Inc.; 2005.

46. PACS

47. Dempsey & Keen 2008

Table 1: Overview of the structure of the data set

Dimension of care process	Example of one practice action	Example of one related clinician quote
1. Assessment	Make judgements about carer's support needs (f=13 n=7)[*]	S1OT300:[**] "We felt this mother and father but especially mother needed support and was not going to be able to get that level of support through just suggestions (...)"
2. Setting goals and planning actions	Take guidance from carers (f=9 n=7)	S1OT300: "To guide us as to what we could do for them, you know, to tell them obviously what we can offer and then take guidance from them and it was very much an interactive process."
3. Treatment	Provide activity ideas/suggestions (f=6 n=18)	SS1OT300: "I gave them some support suggestions to start with; I was very careful to go through and talk with mum and dad about them and then I said I'll get to know you and him better because I'm going to work with you directly."
4. Review	Discuss situation and plans with carer and child (f=16 n=11)	S5OT200: "The last session I split into timeslots and met with the parents (...) and I just sat down and discussed where we had got in terms of the aims and how things were progressing (…)."
5. Discharge	Explain discharge reasons (f=8 n=3)	S3OT400: "I just took it that it was very much a professional decision as a therapist that I felt he had you know, the positives that he had made progress, he was doing well so there wasn't a need for ongoing therapy."
6. Managing processes and relationships	Listen to carer (f=2 n=2)	S3OT200: "Establishing the relationship with the parents, not rushing them, accepting what their view of the future was for their child, listening rather than dictating to."

[*]f=Number of times the action was mentioned across clinicians; n=Number of clinicians who mentioned the action; [**]Unique participant code relating each quote to the clinician who said it

Table 2: Assessment of the data set for suitability, accessibility and quality

Aspect assessed	The data set	The secondary analysis
(i) Suitability Context	NHS community-based children's occupational therapy	NHS community-based children's occupational therapy
Aim(s)	To identify, name and describe clinicians' practice actions throughout the care process	To identify specific examples of clinicians implementing family-clinician interactions
Methods	Retrospective, semi-structured interviews with clinicians; content analysis to achieve systematic and objective interpretations	Modified framework analysis, using coding framework and critical discussion to achieve systematic and objective interpretations
Results content	A list of clinicians' practice actions (and related quotes) clustered around six areas of the care process	A list of clinicians' practice actions (and related quotes) presented as examples of clinicians applying principles of relational and/or participatory interactions
(ii) Accessibility	Data set was complete, clearly preserved and stored in an easily accessible format and structure in qualitative data analysis and management software (NVivo)	Not applicable
(iii) Quality	Representative sample of clinicians; open-ended interview questions; dense description of methods/results; coding of the data by two independent researchers; peer examination of methods as part of funding and publication processes	Debriefing in research supervision; critical discussion of coding decisions; audit trail of coding decisions; dense description of method/results; use of clinician quotes to generate and present results; peer examination of methods/results

Table 3: Coding framework for the secondary analysis

Principles of relational interactions

Listens actively [1,6,8,22,37]

Empathises [1,8,37]

Anticipates concerns by offering information even before parent asks [36]

Is warm, caring [1,37]

Has positive beliefs about family strengths and capabilities [1,8,37]

Respects families, respects coping styles, provides treatment respectfully [6,8,22]

Believes and trusts parent as the expert on their child [22,36]

Is trustworthy, honest, genuine, authentic [1,37]

Offers parent positive feedback or encouragement [36]

Supports families, provides supportive treatment [6,22]

Accepts diversity [22]

Considers psychosocial needs of all family members [22]

Principles of participatory interactions

Communicates clearly [22]

Shares information about the child [8,22,37]

Provides (needed) information; answers parent's questions completely [6,36]

Facilitates family choice and decision making [1,8,22,36,37]

Ensures that parent has ultimate control over decision making [6,36]

Facilitates family to use existing knowledge and skills; builds on strengths [22,37]

Facilitates family to develop new knowledge and skills [1,37]

Emphasises parent's responsibilities for acquiring knowledge and skills and finding solutions to problems [37]

Facilitates active collaboration with parent in identifying needs [22] and goals [37]

Makes sure parent feels like a partner in their child's care and has a chance to say what is important to him/her [6,36]

Provides opportunities for parent to be involved in solutions to problems [1,37]

Facilitates active participation of family in developing and implementing courses of action to achieve desired outcomes; consults parent about equipment or services [22,36,37]

Provides accessible, individualised, flexible services [1,8,22]

Encourages use of community supports [22]

Table 4: Illustrative, practice-based examples of clinicians applying principles of relational interactions

The principle	Corresponding practice actions *(Dimension of the care process)*	Direct clinician quotes related to the practice actions
Listens actively.	Listened to the carer or child *(Treatment)*	S5OT200: "And mum then felt she was part of the meeting as well and **her views were being listened to**."
	Listen to carer *(Manage care process and relationships)*	S3OT200: "Establishing the relationship with the parents, not rushing them, accepting what their view of the future was for their child, **listening rather than dictating to.**"
Empathises; anticipates concerns by offering information even before parent asks.	Make judgements about whether there is enough other support *(Discharge)*	S2OT100: "(…) a lot of people involved (…) getting quite overwhelmed (…) **I think that it's probably enough for her to cope with** the nursery and the nursery staff"
	Try to understand the client's point of view *(Manage care process and relationships)*	S4OT500: "So it's working with her and **what's important to her** (…) it's **not making assumptions about what should be important to a thirteen year old** going through puberty, had a road traffic accident, (…) **your life's turned upside down**."
	Make judgements about the carer's level of acceptance and understanding regarding the child's difficulties *(Manage care process and relationships)*	S3OT300: "**The parents were very, very caring**; (...) met the parents when he was just a young baby, (...) and **I think it's very difficult for parents to imagine** that one day that baby's going to be quite a large child and they're not going to be able to continue to sit them on their knee (…)."
	Identify best way to approach *(Manage care process and relationships)*	S5OT500: "When we went in **we went in very gently** because we didn't want to come in all guns"
Is warm,	No examples were identified to describe clinicians applying this principle	

caring.		
Has positive beliefs about family strengths and capabilities.	Identify strengths *(Assessment)*	S4OT300: "this little girl is very, **very cognitively with it**, in fact **super bright** and very, just **very confident**"
Respects families, respects coping styles, provides treatment respectfully.	Accept the carer's views *(Manage care process and relationships)*	S5OT200: "Establishing the relationship with the parents, not rushing them, **accepting what their view of the future was for their child**, listening rather than dictating to."
	Makes judgements about the best way to approach carer *(Manage care process and relationships)*	S4OT700: "**I waited and I didn't try and go barging in** with you know, 'we must change this, he must be in nappies straight away'"
	Not to rush the carer *(Manage care process and relationships)*	S4OT700: "Again, **when his mum was ready to do that** and when the teacher was ready as well, we looked at it more."
Believes and trusts parent as the expert on their child.	Gather perspectives from others *(Assessment)*	S6OT200: "but also for me **the person that knew the child best of all was the parents** so I needed to **find out what they were feeling** about things as well."
	Take guidance from carers *(Setting goals and planning actions)*	S4OT500: "(...) we started from the point of view of **asking what the child and the family had issues and concerns with** and **what would really make a difference to her life** and **what she wanted to do** (...)"
Is trustworthy, honest, genuine, authentic.	Be enthusiastic, positive, informal *(Manage care process and relationships)*	S3OT200: "I think really being **positive**, being **enthusiastic**, being **not too formal** and explaining with a bit of **passion**, what I **hope** for this child and you know, what's **your part in it**."
	Establish a relationship *(Manage care process and relationships)*	S3OT200: "you're really using your inter-personal skills to **try and get them to trust you and believe in you** and what you do."

	Built a relationship with the others *(Manage care process and relationships)*	S6OT100: "**Building up a rapport with the parents and the child** (...) **if you say you're going to do something, you do it** you know, **being transparent** about the whole process; your communication you **encourage them to ring you** (...)"
	Encourage *(Manage care process and relationships)*	
Offers parent positive feedback or encourage-ment.	Illustrate child's progress to carer *(Discharge)*	S5OT100: "I did explain (…) the **progress that he'd made**, the **things that they were doing with him** (…)."
	Provide feedback *(Manage care process and relationships)*	S6OT100: "starting off with some basic things which worked (…) the **lad himself could see, things can happen, things can change** so I suppose **getting them confident in and understanding** what you were trying to do and just having a sort of partnership approach"
Supports families, provides supportive treatment.	Provide activity ideas or suggestions *(Treatment)*	SS1OT300: "(…) **I was very careful to go through and talk with mum and dad about what [the support] suggestions were** ."
	Support carer *(Manage care process and relationships)*	S4OT100: "(…) as a team we discussed with [Mum] how this had been done because **we felt that mum needed support** and it wasn't to be seen as a bad thing; it was support **so that mum would get support that she would feel supported** (…)."
Accepts diversity.	No examples were identified to describe clinicians applying this principle	
Considers psychosocial needs of all family members.	Make judgements about carer's support needs *(Assessment)*	
	Support carer *(Manage care process and relationships)*	S1OT300: "We decided we would intervene because **we felt this mother and father but especially mother needed support** (...)"

Table 5: Illustrative, practice-based examples of clinicians applying principles of participatory interactions

The principles	Corresponding practice actions *(Dimension of the care process)*	Direct clinician quotes related to the practice actions
Communicates clearly; shares information about the child.	Communicate with carer *(Manage care process and relationships)*	S3OT100: "So we set out his goals, we wrote a report to **home and to school and to everyone, made the goals really clear** on the report that this is what we are going to look at, **this is what we agreed** at the time of assessment so **mum and dad knows, the child knows** and they know how long they are going to be involved **so it's not going to be a surprise** when they are discharged..."
	Communicate with other professionals *(Manage care process and relationships)*	S3OT100: "Yeah we have a plan at the end of every report (…) we put 'goals agreed at time of assessment with mum and OT are as follows'. So it's really clear (…) **so mum and dad have got a copy of that, school have got a copy, GP, referrer, everybody has got a copy** of the exact goals."
	Provide written information *(Manage care process and relationships)*	S6OT100: "(...) having some hand outs that **explained what was happening**, assessment reports where **copies go to them** so they had that in written form."
Provides (needed) information; answers parent's questions completely.	Provide information and advice *(Treatment)*	S6OT100: "(...) anything we explained to him was obviously simple. But I had conversations with them and on the phone **recommended things like local support group, some books, resources that they could tap into**, things like that."
	State discharge reasons to carer *(Discharge)*	S3OT400: "**I spoke to mum and explained**, that there might be future issues when he's just starting school but that's two years down the line (…), **explained my reasons to her** that the discharge was good because at this point that's a really positive

26

thing that he's doing so well."

	Stated timeline for involvement early on *(Discharge)*	S5OT400a: "**I was explicit at assessment that he would be discharged** following the implementation of the recommendations."
	Inform carer about re-referrals *(Discharge)*	S2OT1200: "**We have a re-referral policy which I told her about** where if by any chance she had concerns she can phone up and if it's within a year we would just pick him up and it would probably be me that would pick him up."
	Persuaded others *(Manage care process and relationships)*	S5OT500: "I said **we could bring down examples** of what [the equipment recommended for the child] would look like; **I could take them somewhere** where they could see it so they would know, what [the equipment] looked like and then **they could imagine that** in the home situation."
	Provide information *(Manage care process and relationships)*	S5OT500: "I'd been to home to mum saying **this is the sort of equipment that she has in school and this is the sort of stuff we are looking at school** and discussed that [child's] **school recommended** that children carry this over to home."
Facilitates family choice and decision making; ensures that parent has ultimate control over decision making.	Establish and communicate what OT can and will do *(Setting goals and planning actions)*	S5OT300: "Then discussing with them 'ok, those are the areas that you want to be better at, **this is what we can offer** in terms of those areas, is that something that you would be keen?'"
	Consider acceptability to carer *(Setting goals and planning actions)*	S6OT100: "I said to his parents 'right, I think we need to take a sensory integration approach, the only issue is I need to use suspended equipment and you need to bring him here, **what do you think**?' **We went through all the issues**"
	Allow the client to choose or go along *(Manage care process and*	S4OT500: "So it's not my job to go in and say 'you have to dress, you have to do buttons, you have to do laces', **it's up to her and her family and it's about choices** and that's how I try to work with

relationships)		families. If it's important, '**what do you want to do**; (...) we'll work on that.'"
	Clarifies OT's role to carers *(Manage care process and relationships)*	S4OT600: "**We did explain the role of OT** that we were looking towards independence and making [the child] as independent as we could obviously at an age appropriate level, and we sat down and together we thought of different, **we just did kind of like a brain storm of different areas that we could look at**."
Facilitates family to use existing knowledge and skills; builds on strengths.	No examples were identified to describe clinicians applying this principle	
Facilitates family to develop new knowledge and skills.	Demonstrated things to carers *(Treatment)*	S1OT300: "Just being able to problem solve, to adapt, to demonstrate things, we worked through activity which I think made more of an impression for (the mother) because **she was just that much more able to understand things and to be a part of something if she could do it**."
	Provide a programme to home *(Treatment)*	S4OT300: "**I would hand suggestions over to mum** and they would do them together, **they would realise that that's what they were doing** and I could see the progress the next time I saw them."
	Provide activity ideas or suggestions *(Treatment)*	S5OT400a: "I **spent time with the family** with *(the child)* and his brother going through the activity suggestions."
	Demonstrate *(Treatment)*	S4OT600: "(...) really **break things down** into simple terms and **do a lot of demonstration** (...) **simplifying the information** that I provided and if I was providing any sheets with activities **there was lots of pictures** and **I would demonstrate a lot of things** to them; instead of making it very verbal, it would be **more hands on and showing them** what

		to do which helped a lot."
	Worked through activities *(Treatment)*	S5OT300: "**Going through the different areas that we would be working on** in the sessions and the types of activities that we might be doing and that **they could do at home as well**, so that they had a better understanding of what we were going to be working on."
	Help others to understand the child's difficulties *(Treatment)*	S4OT600: "(...) it was actually just **during our treatment sessions reinforcing what was actually causing him to have these difficulties** (...) so I think through observation and describing and because she [the mother] had the knowledge to understand what was causing the difficulties."
	Facilitated implementation *(Treatment)*	S5OT400a: "**I spent time with the family** with (the child) and his brother going through the activity suggestions."
	Provide opportunities to experience and experiment *(Treatment)*	S5OT500: "The whole time we were working our way through the process we could explain to parents you know, '**this is what you're looking for, when this sort of thing starts happening you need to be doing these sorts of things**'. So it was very much I think it took about ten weeks we did it over with parents and this boy (...)"
	Demonstrated *(Manage care process and relationships)*	S6OT100: "(…) visits and you know, **going in and showing**, demonstrating how you can play with him." S3OT300: "(...) **did lots of pointing things out and demonstrating**, demonstrating how he was able to turn his head or able to use his eyes if he was positioned in a better way, if he was in an abnormal position '**look, he's not able to turn his head, he's not able to do this and therefore he will become frustrated** (...)'"
Emphasises parent's responsibilities	Agree plans, roles and responsibilities *(Setting goals*	S5OT500: "We actually set up a Care Agreement you know for specific time about what my role was, **what I was going to do in that time, what mum's responsibilities were and what *(the child)*'s**

for acquiring knowledge and skills and finding solutions to problems.	*and planning actions)*	**responsibilities were** (...) so the care agreement was all done; everybody signed up to it."
	Empower others to look after the child *(Treatment)*	S5OT500: "From the start I always make it very clear with parents that **one of my job, roles is to hand responsibility back to them** so whilst there may be a difficulty to start with, what my long term aim is to **get to the stage where they feel they could manage it**."
	Expects home (and school) to carry activities over *(Treatment)*	S5OT300: "There was a big discussion about home tasks, the fact that **they would be given home tasks between sessions**, it wouldn't just be a case of coming up once a week with nothing in between."
	Supported others to support the child *(Discharge)*	S5OT100: "I did explain quite well you know, the progress that he'd made, **the things that they were doing with him and that was all appropriate for them to carry over**."
Facilitates active collaboration with parent in identifying needs and goals; makes sure parent feels like a partner in their child's care and has a chance to say what is important to him/her.	Identified carer's concerns *(Assessment)*	S4OT500: "When I started working with mum that we started from the point of view of **asking what the child and the family had issues and concerns** with and what would really make a difference to her life…"
	Take guidance from carers *(Setting goals and planning actions)*	S1OT300: "To **guide us as to what we could do** for them, you know, to tell them obviously what we can offer and then **take guidance from them** and it was very much an interactive process."
	Plan actions from assessment *(Setting goals and planning actions)*	S5OT300: "We kind of drew up an OT plan in terms of you know what we could offer, **what parents wanted and what the boy wanted** so **we sort of negotiated** what our goals would be."
	Identify aims *(Setting goals and planning actions)*	S5OT400A: "**We agreed the main goals, we agreed the main focus** what we were going to look at."
	Communicate	S3OT100: "Clear goals were set, clear aims were set,

plans to others *(Setting goals and planning actions)*	they were **discussed with the parents** and **they knew exactly what was happening**."	
Asked carer or the child's opinion *(Treatment)*	S3OT300: "We were saying to them 'we want you to come along because **we want you to tell us what you think that we could be doing** to enhance the child's life at home, to enhance your life, family life'."	
Set goals together *(Manage care process and relationships)*	S4OT200: "Listening to the child and **taking onboard**, as they get older, **what they want to do and what their goals are** and how we are going to achieve it and being imaginative as well, I think. And again the **communication with the child, with the parents**, I think is integral as well to the process."	
Identify the client's goals and priorities *(Manage care process and relationships)*	S5OT400A: "It was really important just to you know ensure that we were working on what was **their priority**." S4OT600: "We discussed what **her main concerns** were and what **her goals** were and obviously that's really important, and we worked around that."	
Find out carer's views *(Manage care process and relationships)*	S4OT600: "We were working towards **what was most important to her** and *(the child)* and obviously discussing what we felt would be useful to work on and discussing that with her."	
Contract *(Manage care process and relationships)*	S5OT500: "We sat down with the agreements you know, just sat them down and discussed them **got everybody involved**, **the wee boy was involved** so it was very much **we worked along together**."	
Include carers in the assessment *(Manage care process and relationships)*	S4OT500: "When I started working with mum that we started from the point of view of **asking what the child and the family had issues and concerns** with and what would really make a difference to her life (...)"	
Provides opportunities for	Involve carer or the child *(Treatment)*	S1OT300: "I think it was quite important that I had mum here and that we **worked together** (...) **We problem solved together** about how to get him, you

31

parents to be involved in solutions to problems.		know, more engaged, (...) and she could see me problem solving and **she was then actually helping me**."
	Problem solve together with others *(Treatment)*	S1OT300: "I think the fact that **she was doing active problem solving with me** and seeing the result of that, **empowered her**, I think it was quite important that I had mum here and that we worked together (...) **We problem solved together** about how to get him more engaged, (...) she could see me problem solving and **she was then actually helping me**."
Facilitates active participation of family in developing and implementing courses of action to achieve desired outcomes; consults parent about equipment or services.	Discuss situation and plans with carer and the child *(Review)*	S5OT200: "The last session I split into timeslots and met with the parents (...) and **I just sat down and discussed where we had got with the aims and how things were progressing** at school and home."
	Make a joint decision that OT is no longer required *(Discharge)*	S1OT300: "**We made the decision, mum and I and teacher** (...) that he didn't really need the service anymore at that point."
	Discuss discharge with carer *(Discharge)*	S5OT200: "It was more the parent really that felt, **I think that she felt confident to carry on** with the activities at home and confident that the school were now onboard and so I took the option for discharge."
	Have parents attend treatment session *(Manage care process and relationships)*	S5OT100: "For the individual sessions **the parents were in watching** what I was doing with their child and **then I was explaining** at the end of the session."
	Gives ownership and control to carer *(Manage care process and relationships)*	S3OT200: "**Giving people ownership** of their responsibilities and that **without saying this is what you've to do**; this is what you've to do. It's about **let's as a group see what we can do**."
		S4OT100: "To then trying to give, yeah **trying to give her some control over it all** and then trying to do the approach of what's important to her now (...)."
	Discussed	S4OT500: "When I said about the trike (...) this will be

	consequences *(Manage care process and relationships)*	really good **because this will give her an opportunity in the playground to play** (...) the other children are running around, they all cycle in (...), so they took that trike idea on board actually, after quite a bit of persuading (...) and its nice because she's doing the same things as the other kids."
Provides accessible, individualised, flexible services.	Did a home visit *(Assessment)*	S4OT400: "I thought well actually assessing her, working with her in nursery is not going to work**, I need to work with her at home really to build up some sort of relationship**. So I did a home visit."
	Be there, be available *(Manage care process and relationships)*	S3OT200: "(...) mum knew she had that contact and **she could pop in at that time if she wanted to see me** or **she could lift the phone to me at any other time**."
	Be flexible *(Manage care process and relationships)*	S5OT200: "For the individual sessions **I juggled my timetable so that mum could come** when she wasn't working."
	Select a meaningful activity *(Manage care process and relationships)*	S4OT500: "She's happy to sit and do writing for me if it's centred round graffiti and the information that she wants (...) So it's **working with her and what's important to her**."
Encourages use of community supports.	No examples were identified to describe clinicians applying this principle	

List of tables

Table 1: (proposed for online publication as supplementary material)

Overview of the structure of the data set

Table 2: (proposed for online publication as supplementary material)

Assessment of the data set for suitability, accessibility and quality

Table 3:

Coding framework for the secondary analysis

Table 4:

Illustrative, practice-based examples of clinicians applying principles of relational interactions

Table 5:

Illustrative, practice-based examples of clinicians applying principles of participatory interactions