Research Square

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The challenges and gains of delivering a home-exercise intervention: a qualitative study of physiotherapists and physiotherapy assistants

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Research Article

Keywords: Qualitative research, knee arthroplasty, physiotherapy, physiotherapy assistant

Posted Date: April 22nd, 2022

DOI: https://doi.org/10.21203/rs.3.rs-1504943/v1

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Abstract

Objectives: the paper presents insights from the CORKA randomised controlled trial. We aimed to explore physiotherapists and physiotherapy assistants' experiences of delivering a home-base exercise intervention following knee replacement surgery. We were particularly interested in the feasibility, potential benefits and barriers of a community-based exercise programme from the perspective of physiotherapists and physiotherapy assistants.

Design: Qualitative thematic analysis of semi-structured interviews.

Setting: The Community based Rehabilitation after Knee Arthroplasty (CORKA) trial.

Participants: Five physiotherapists and six physiotherapy assistants with a range of clinical experience.

Methods: Interviews were digitally recorded and transcribed verbatim. We used the stages of reflexive thematic analysis suggested by Braun and Clarke. Three researchers with experience in qualitative research methods contributed to the coding and analysis of data.

Results: We developed seven themes that help to understand the benefits and challenges of delivering treatment interventions in a person's home: seeing the person in their own world; developing people skills; thinking outside the cubicle; enjoying the above and beyond; treading a fine line between patient and friend; feeling outside my comfort zone; needing a support network.

Conclusions: Treating people in their own homes facilitates a holistic approach. Our findings highlight areas for clinical education: (1) how do we help clinicians to tread the fine line between patient and professional (2) how do we balance the need to provide support and the freedom to work creatively and independently?

Introduction

Over 100,000 primary knee replacements are undertaken each year in the UK. Post-operative physiotherapy is an important part of recovery which may be delivered in a traditional out-patient clinic setting or in the patient's own home. In the UK, The NHS Long Term Plan has identified the need to decentralise services, with greater community provision and less emphasis on care provided in large acute trusts where that is not clinically mandated [1]. This qualitative study was undertaken to explore the gains and challenges of delivering a home-based exercise intervention for total knee replacement as part of the Community based Rehabilitation after Knee Arthroplasty (CORKA) trial [2, 3]. A multicentre randomised controlled trial that compared two different rehabilitation strategies after knee arthroplasty. The CORKA trial rehabilitation package was delivered by physiotherapy assistants with supervision from qualified physiotherapists. We aimed to understand the gains and challenges of delivering a home-base exercise intervention from the perspective of physiotherapists and physiotherapy assistants.

Methods

We used the Equator standards for reporting qualitative research (SRQR) to enhance the transparency of our report [4] (supplementary file). Potential participants were identified by the CORKA trial coordinator and given an information sheet about the study. Those who were interested in taking part were contacted by the qualitative researcher to arrange a convenient interview. The same researcher completed all interviews. An interview guide was used flexibily with follow up prompts to ensure that relevant areas were covered and that participants could introduce new relevant areas. Two interviews with rehabilitation assistants took place on the telephone, and the rest of the interviews took place in a quiet room at work. Interviews were digitally audiorecorded and transcribed. Recruitment was stopped when a wide range of views had been obtained and no new topic areas were being raised. The first three transcripts were independently coded by two researchers. As similar coding units were identified, a single researcher coded subsequent transcripts. We organised the coded data into themes [5], and these themes, along with their codes and data were checked by two other researchers. The aim of this process was to discuss, and decide upon, a description of each theme and confirm that the themes were supported by the data. The process of constantly comparing data, codes and themes occurred throughout the analyses and the team met regularly to discuss this. Thus rigour was promoted through collaboration [6].

Results

We conducted interviews with five physiotherapists and six physiotherapy assistants; these lasted between 60-90 minutes and were audio recorded and transcribed verbatim. Post qualification experience for physiotherapists ranged from 1-32 years, and assistants had between 1 and 30 years experience.

We developed seven themes that help to understand the benefits and challenges of delivering treatment interventions in a person's home: (1) seeing the person in their own world; (2) developing people skills; (3) thinking outside the cubicle; (4) enjoying the above and beyond; (5) treading a fine line between patient and friend; (6) feeling outside my comfort zone; (7) needing a support network. Each theme has been illustrated by a verbatim quotation.

Seeing the person in their own world

This theme describes the value of seeing the person in the context, and complexity, of their own world.

I think that holistic approach is really important: Yes we're there to get their knee bending . . . but in the bigger picture, I want them to be able to go outside and use their knee . . . to go and see friends, or do dancing . . . I saw quite a nervous chap . . . most of the time, we didn't spend doing exercises . . . his knee was functionally really good . . . getting back to work was his main worry. So, we spent a lot of time talking about how to get back to work . . . the kind of holistic approach for him was very important
(Physiotherapist)

Participants compared the encounter in a medical setting, and its focus on the body part, with a more relational encounter at home.

[being at home] *sort of takes it out of that context where the mindset of you're just there just to fix you . . . you're with that chance to be able to talk with people, they're able to see you as being human.* (Assistant)

Entering a person's home was described as a privilege, where the balance of power can shift from clinician to patient: the *patient* becomes *person*.

You're in there and it's a privilege to be in someone's home. They've let you in. You're not just seeing them; you're seeing everything really . . . you probably will go to their bedroom to do some exercises on the bed, into their kitchen . . . So it's quite invasive into their world, but it also gives you a lot more in terms of the whole picture. (Physiotherapist 52)

Participants felt that in their future clinical practice, they would focus more on striving to 'see the person'.

Thinking about the patient as a whole - I think is what I'll take forward . . . That's been one of the key things that I've taken away. (Physiotherapist)

I would say that I'd strive now to see the person as an individual . . . . . to try and just understand where that person's coming from, because even with something that you think is as simple as a knee replacement . . . the impact on that one person's life . . . You don't just know that stuff instinctively, you've gotta know the person. (Physiotherapist)

Developing people skills

This theme describes the benefits of 'people skills' which allow you to enter a person's world and provide individualised, and therefore effective, care.

To be truthful they need to have good people skills to be able to talk to people and not talk down to them . . . don't make 'em feel like they're on detention . . . personal skills count a lot . . . You've sort of got to win their confidence and once you do that it's amazing what you can get out of them . . . get that then you're rockin' and rollin'. (Assistant)

Good people skills meant getting to know the person in their context and having the flexibility to respond to individual needs.

The reality is that things change quickly, you have to be pragmatic . . . real life is wonderfully, beautifully messy. . . You can't know a thing that's gonna come up. (Physiotherapist)

It's just making that patient feel really comfortable . . . letting them know that it's okay and everyone doesn't follow the same rehab path . . . I think you have to realise you have to be very flexible around the

patient. (Assistant)

Thinking outside the cubicle

This theme describes how seeing the person in a real world in situ can enhance creative thinking.

in a sort of sterile clinic or environment where the floor's totally flat, there's no obstacles . . . it doesn't bear that much resemblance to somebody's house . . . I think seeing people in their own home, it's just different . . . you can see it, it's not just theoretical. (Physiotherapist)

Participants enjoyed the freedom to be less prescriptive, to use their imagination, and to be creative 'outside the cubicle'

I enjoyed being able to give the people the realisation that you don't need any fancy equipment . . . utilising the equipment that they've got, their chairs, their stairs . . . a bit of rope that the husband has got in the shed . . . It was taking it away from just 'here's a sheet with some exercises on it' . . . the skills of being able to adapt to the situation. (Assistant)

This creative and less prescriptive approach was contrasted to the clinical space

[in the clinical space] *you probably can't build up as much of a picture, and you can't see the home environment that you're working with . . . we're able to kind of walk through a day in the life, rather than just talk through it . . . thinking about the bigger picture . . . doing a bit of detective work. . . . I think [we] probably get a bit trapped in the cubicle thinking . . . fix the problem, next patient, fix the problem, next patient . . .* (Physiotherapist)

The *above and beyond*

This describes the personal gain from having a real impact on people's lives.

I gained . . . personally . . . building relationships; being able to gain more of an insight into human beings . . . this has been really important to me. To be able to spend the time talking to people and understanding what makes them tick . . . I want to take on the stories . . . I think if I wasn't doing that . . . I'd be less satisfied and more likely to burn out . . . that's the bit that I enjoy the, the above and beyond. (Physiotherapist)

There was a sense that the gains of this were mutual, benefitting patient and therapist.

It was so lovely walking around that big park, seeing her in her community and she had a lump in her throat, 'I never would have been able to do that three months ago, you have no idea what that surgery's done for my life'. And you know she squeezed my hand and said 'that's great thank you'. And she didn't have much honestly . . . she had nothing. It was great. So thank you. (Physiotherapist)

Treading a fine line between patient and friend

This describes the challenge of managing the boundary between yourself and your patient.

You always have to realise that the patient . . . is a patient and not a friend . . . there is that fine line . . . [be] clear to them that you're here to rehab them . . . some patients want to have a laugh and a joke with you but I wouldn't say that is unprofessional . . . it's polite to have that five minute conversation . . . and then once that's out the way, get on with the treatment. (Assistant)

There was a tension between developing a good rapport and the need to maintain a professional boundary

Building rapport is really important to get the patient engaged, but it's managing the professional relationship is the difficult bit. . . You do get to you know their family, you meet their kids, you know their dogs' names . . . and you obviously share your own life stories . . . I found it kind of difficult to negotiate that barriers sometimes . . . because they feel like you're now friends . . . so it's difficult to steer back from a close to a professional relationship. (Physiotherapist)

There was a sense that you could cross the line and share too much.

Doing a bit of a share . . . appropriately . . . it breaks down barriers very quickly, doesn't it . . . It is knowing where to stop . . . not sharing too much . . . I think it's very blurred . . . sometimes you might cross that line (Physiotherapist)

Participants describe a 'middle area of closeness' where you enter a person's world far enough, but not so far that you become ineffective.

I think there is kind of a middle area of closeness . . . it's not the more you get into their lives, the more help you can offer . . . there's a threshold that helps, and then maybe as you get too far, you're not objective . . . I think you can get a lot from [talking] but if you go to the extreme . . . you hardly have any impact in terms of your knowledge. (Physiotherapist)

Participants described situtations where it might be more challenging to walk this fine line. For example, if you felt more of a connection.

Some people you do sort of click with . . . I got to the point where I liked him, he was a nice bloke . . . I can understand where you're coming from, you used to be fit and healthy . . . now you can hardly walk . . . . It's sort of seeing somebody sort of knocked back quite severely . . . . I felt that I want to be able to help him as much as I could (Assistant)

Feeling outside my comfort zone

This describes a feeling of vulnerability when working at a geographical distance from a medical setting.

They were sort of under the impression that I was a physio . . . 'What do you mean, you're not a physio?' . . . and it just sort of made me feel a little bit, uncomfortable . . . there was a husband firing a lot of questions at me . . . it made me get my back up a little bit . . . . I don't really like it when he's sort of interrogating me (Assistant)

There was a sense that it was very important to have access to support from colleagues. For example: severe pain, swelling, lack of expected progress, or if things just 'didn't look right'.

It was just mainly with the people who weren't progressing as much . . . the lady who wasn't getting beyond 30 degrees of movement . . . . I felt I'd sort of done everything that I could. So, of course, I'd go back and touch base with [the physio] . . . even [the physio] was a bit baffled. (Assistant)

Physiotherapsists recognised that this could be extremely challenging for assistants, and emphasised the need for communication and support

I think the important thing would be just to emphasise openness and communication . . . . 'Don't sit on something: if you're worried about something, tell me . . . I might be worried about it as well, and I'll tell someone else' (laughter) . . . report it . . . discuss it . . . have a conversation. . . reason it through . . . give your point of view . . . I guess it's wanting to have trust. (Physiotherapist)

Balancing support and autonomy

This theme describes the challenge of providing the right level of support whilst also encouraging creative and independent decision making.

It's quite nice . . . to feel like you're making an impact independently . . . But at the same time, it's nice to have that support . . . I didn't feel at all like I was kind of abandoned or deserted . . . I think if the physio was coming in every single time they'd be pressure . . . are they kind of judging [me]? (Assistant)

There was a sense that a collaborative and supportive partnership between physiotherapist and assistant provided a safe place to learn.

I took on a lot of skills and I learnt a lot about myself, I learnt a lot more about how to present myself to a patient because I was independent and I was learning from the [physios] . . . so I was pitching the best skills from everybody and putting them into what I want to become. (Assistant)

Summary of findings

Our findings, summarised in Figure 1, illustrate how home-based therapy was underpinned by a relational and holistic approach (*seeing the person in their own world*). This approach relied on individualised care (*developing people skills*) and creativity (*thinking outside the box*), and could lead to both professional and personal gains (*enjoying the above and beyond*). Participants could find it challenging to manage the

professional boundary (*treading a fine line between patient and friend*), and geographical distance from the medical setting could make them feel vulnerable (*feeling outside my comfort zone*). At these times, the right level of support from colleagues, which made them feel supported yet still autonomous, was important (balancing support and autonomy).

Discussion

We aimed to understand the gains and challenges of delivering a home-base exercise intervention from the perspective of perspective of physiotherapists and assistants. It is standard practice within the UK for out-patient physiotherapy to be delivered in a clinic setting by registered qualified physiotherapists. In contrast, the CORKA home-based intervention was multidisciplinary in content, delivered in participants' own homes, and used a staffing model of rehabilitation assistants supervised by a qualified physiotherapists or occupational therapists. The trial from the main trial found that both staffing models were safe and similarly effective.

We found that both physiotherapists and rehabilitation assistants were positive about working with each other in the community and that these themes cut across both groups. Our findings indicate that treating people in their own homes facilitates a holistic approach which is transferable into other clinical settings; this relates to personal skills integral to compassionate clinical practice not simply professional knowledge. The home therapy environment encouraged clinicians to develop these skills, and the clinicians indicated that they would transfer these skills to other clinical settings.

Beyond the therapeutic gains, the clinicians described personal rewards of working 'above and beyond'. Our findings highlight areas for clinical education: (1) how do we help clinicians to tread the fine line between patient and professional (2) how do we balance the need to provide support and the freedom to work creatively and independently? These themes are transferable across settings and professional groups. They highlight the challenge of negotiating the space between professionals and patients and demonstrate the therapeutic and personal benefits of trying to understand how life is lived 'outside the cubicle'.

The NHS Long Term Plan has identified the need to decentralise services, with greater community provision and less emphasis on care provided in large acute trusts where that is not clinically mandated [1]. We suggest that the home-based intervention is a model that meets this strategy as it targets care to those at higher risk who most need it, within participants' own homes and communities. It addresses the workforce shortage issue by using an innovative workforce model of advanced rehabilitation assistants, moving UK service provision closer to that which has been proven to be effective in North America, where the use of physical therapy assistant graded staff is well embedded and where trials comparing the delivery of exercise programmes by qualified physical therapists or physical therapy assistants supervised by qualified physical therapists have demonstrated equal outcomes [7]. The use of different workforce models and particularly a hybrid model of assistants supervised at a distance by qualified therapists has not been researched in any depth in the UK. However, it is an emerging service delivery

model in the UK and elsewhere, where the need to provide greater levels of care to meet the needs of an ageing population is set against a backdrop of insufficient commissioned training places for students [8].

Published guidance from professional bodies on competency training and roles that may be allocated to assistant staff can support advanced or experienced rehabilitation assistants to deliver effective protocol-driven care [9]. This will free up qualified staff for complex care and management of the overall patient pathway. This model has been developed in other Allied Health Professional settings; in speech and language therapy randomised controlled trials have compared the roles of speech therapy assistants and qualified therapists undertaking speech therapy for children in schools and for swallowing practice and found the use of rehabilitation assistants to be beneficial [10, 11].

With projected deficits in healthcare staffing from NHS England modelling further work looking at different workforce models and interventions using rehabilitation assistants may form an important subject for further research. NHS national vacancy rates vary between 6% and 20% with an estimated increase of 500 more qualifying students a year needed per year to keep pace with demand [12]. The use of a different staffing model is also worthy of exploration in terms of overall costs and affordability, making good quality rehabilitation affordable to all, particularly with the anticipated continued growth in the number of knee arthroplasty procedures performed each year.

A strength of our study is that our sampling strategy successfully recruited participants with a range of ages and experience. Qualitative research is an interpretive methodology that does not aim to be statistically representative of the whole: it aims to distil ideas from the essence of collected data. Thus the rigor of our qualitative study hinged on our collaborative approach to analysis and the experience of the qualitative researcher. Our study has distilled ideas that would be useful in developing clinical practice for frail older adults undergoing joint replacement and for clinical education.

Declarations

Ethics: The study protocol was approved by the South-Central Research Ethics Committee (Reference 15/SC/0019). All procedures performed in the study were conducted in accordance with the ethical standards of the 1964 Helsinki declaration. Informed consent in writing was obtained from all participants included in the study.

Consent for publication: Written informed consent for use of verbatim quotations from interviews was obtained from the participants.

Competing Interests: The authors declare that they have no competing interests.

Funding: This work was funded by the NIHR Health Technology Assessment, Project reference number 12/196/08.

Authors Contributions:

FT Led the qualitative interviews, conducted interviews and led the analysis.

JR participated in interviewing participants, analysis and preparation of the manuscript.

KLB Conceived and designed the study and had overall responsibility for the study design and delivery. She participated in the analysis and drafted the manuscript.

All authors read and approved the final manuscript.

Availability of data: The datasets generated and/or analysed during the current study are not publicly available due to fact that consent was not taken from participants to share their interview transcripts for this purpose. Other data are available from the corresponding author on reasonable request.-19.4

Acknowledgement – n/a

Corresponding interview: Professor Karen Barker

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Figures

Figure 1. Visual representation of themes

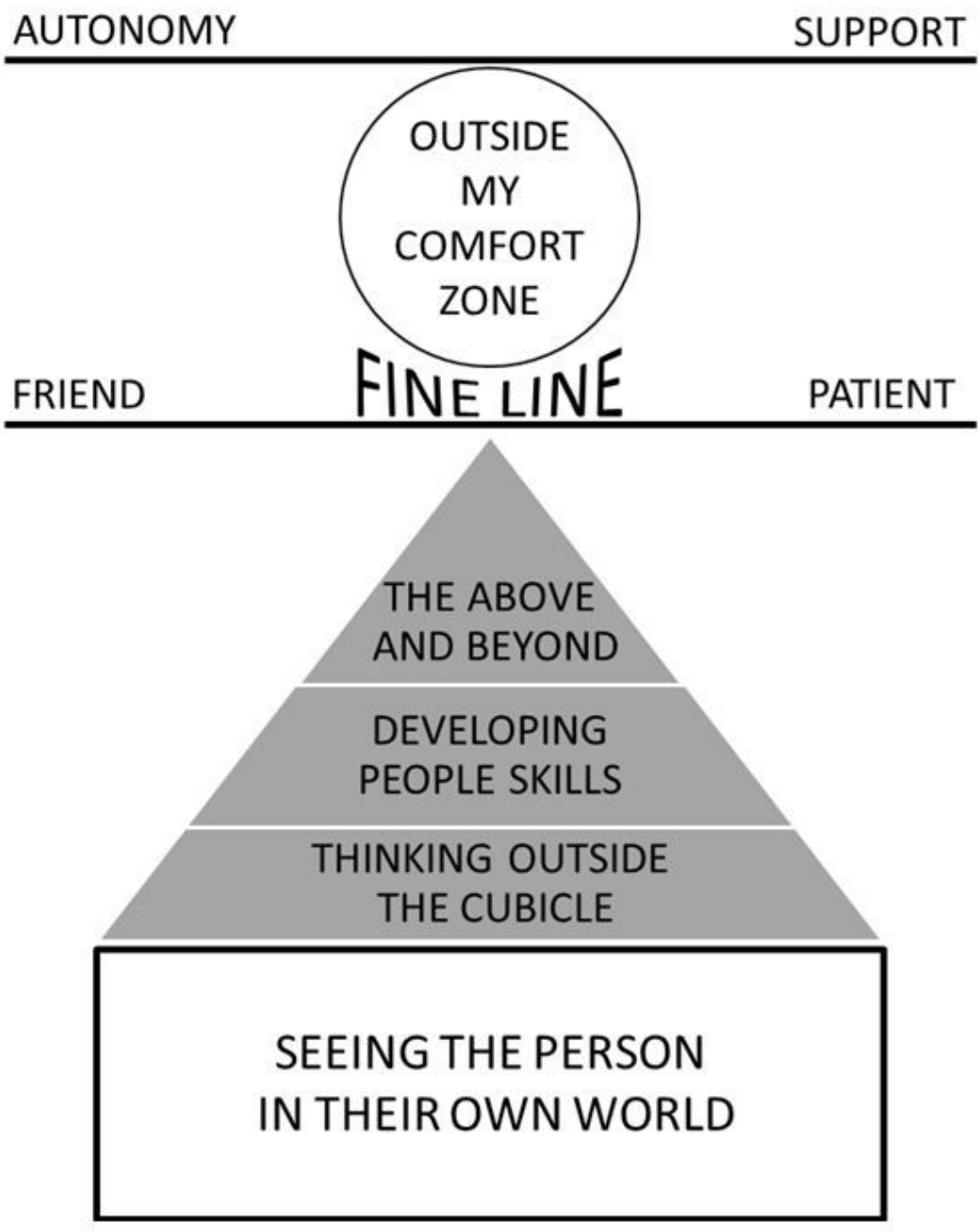

Figure 1

See image above for figure legend.

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