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## ARTICLE

# Evaluation of a tactic to engage hard-to-reach patients during the exercise referral process: a longitudinal qualitative study

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## Abstract

**Objectives:** General practitioners (GPs) have been reluctant to promote physical activity with overweight and obese patients due to concerns about damaging the GP - patient relationship, a central component of person-centered healthcare. A longitudinal qualitative study was conducted to evaluate a small group of health professionals (HPs) and their patients' perspectives of the referral process for exercise in a Primary Care setting.

**Methods:** Twelve patients aged 55-74 and their 6 referring HPs, including 5 GPs and 1 Practice Nurse participated in the study. Semi-structured interviews took place on 2 occasions over an 8 month period in a Primary Care Health Centre. Transcripts of recorded interviews were coded and thematically analysed using a grounded theory approach.

**Results:** HPs and patients identified difficulties associated with broaching the subject of obesity. HPs identified that tensions could arise when discussing weight management and exercise. Patients indicated that they disliked the way in which their HP had introduced the subject of obesity and the need for physical activity. The patients later acknowledged, however, that the consultation where a direct approach was used (shock tactic), was the motivation necessary to engage them with the exercise referral scheme.

**Discussion and Conclusion:** Shock tactics by HPs can be an effective method of engaging hard-to-reach patients with a physical activity intervention. NHS service commissioners should consider training HPs to identify and engage patients that would benefit from such an approach. The place of such interventions within the emerging models of person-centered healthcare within international health systems has not been worked out and requires legitimate enquiry as part of further investigations.

## Keywords:

Doctor-patient relationship, grounded theory, longitudinal study design, person-centered healthcare, physical activity, primary care, qualitative research

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## Introduction

The number of exercise referral schemes available to patients have increased in recent years, with general practitioners (GPs) being encouraged to use such schemes to help sedentary patients become more active. Despite this, referral rates remain low as do the number of patients who take up the schemes. This study examines a persuasive technique used by some GPs, to encourage hard-to-reach patients to take-up an exercise referral.

GPs have been reported as feeling that treatment options for obesity are ineffective, with some GPs being reluctant to accept responsibility for treating obese patients [1]. Reluctance to treat obese patients has been shown to produce conflict, stemming from frustration with the patients for not being able to change their lifestyle [1]. A

lack of motivation on the part of the patient has been identified as a barrier to taking up a physical activity intervention [2]. Concerns have been raised by GPs and practice nurses about discussing overweight issues with patients, with the biggest concern being how the patient would react [3].

Shock tactics have been used in public health promotion campaigns in recent years. For example, smoking cessation [4], alcohol cessation [5] and sexually transmitted infection prevention [6], albeit with questionable effectiveness and little discussion of whether such methods fit easily into a person-centered framework. There is no literature to date that discusses their use by HPs within the area of exercise referral in the United Kingdom. Research has identified scare tactics being used to motivate obese patients in primary care to take control

of their conditions, but with limited effect [7]. Other research has also discussed the use of shock tactics [8]. One study reported that 'provider warnings' for Type 2 diabetes patients had little effect in helping them manage their condition [8] and another that scare tactics could be effective in helping patients to lose weight, but this was dependent on the reaction of the patient [9].

## Method

### Design

This research used a grounded theory approach [10] to evaluate patients' and HPs' experiences of referral into an exercise scheme. Data were collected, coded and analysed by the first author (MQ). The second author (DC) analysed emergent themes for consistency. Thirty six semi-structured interviews took place in January 2009 ( $n=18$ ) and September 2009 ( $n=18$ ) at a Primary Health Care Centre (PCHC) in the South West of the United Kingdom. The interviews were recorded on a digital voice recorder, transcribed *verbatim* and anonymised. Written field notes were taken for corroborative purposes. This design contrasted with other studies on exercise referral in 3 specific ways. First, the majority of studies adopt a positivist [11-13], rather than interpretivist perspective [14-16]. Second, the deployment of 2 data collection and analysis phases contrasted markedly with traditional data collection schedules which tend to adhere to the life-cycle of the exercise referral scheme, that is, 12-week intervention [17-19] and a 12-week follow-up [20,21]. The exercise referral scheme featured here was somewhat unconventional in that most have a clear end point (usually after 12 weeks) whereas this scheme was on-going with no end point. Third, the initial semi-structured interview schedules (January 2009) were developed from the extant literature in the area [7-9,22,23]. The interview schedules used in September 2009 were developed as a result of the themes identified from the January 2009 interview data. The criteria used for the time periods between the interviews were based on patient availability and the time-frame necessary to justify a longitudinal approach. The University of Plymouth UK Research Ethics Committee approved the study.

### Setting

The Primary Health Care Centre (PCHC) is a GP training practice with an on-site community gym. The gym is the result of a partnership between the UK National Health Service and the YMCA (Young Men's Christian Association) of the UK. In addition to attending the gym, patients are encouraged to introduce regular walking into their lifestyles. The reason for selecting a practice-based scheme is that PCHCs have been seen as appropriate venues for exercise referral schemes, due to the numbers of people who visit their GP on an annual basis and that HPs are considered to be reliable sources of advice [24].

### Participants

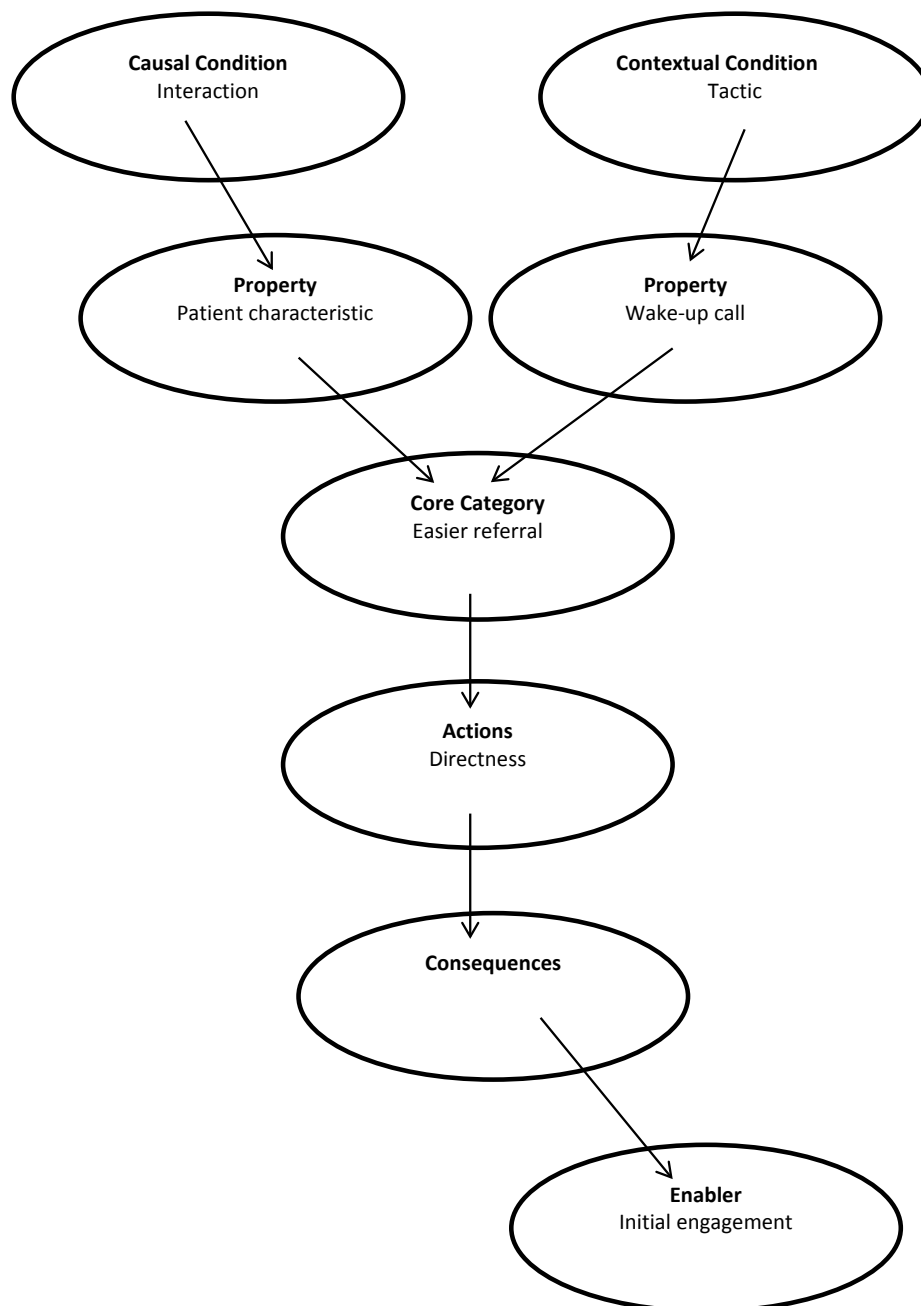
Two groups of participants were recruited using a convenience sample [25]. Six HPs who were in general practice at the PHCC were given informed consent letters. All 6 of the HPs consented to participation. The HPs group comprised of 5 GPs and a Practice Nurse. The HPs ( $n=6$ ) were interviewed on 2 occasions and the interviews lasted approximately 30 minutes.

The patients were referred into the Scheme by the HPs and were considered to be 'high risk' given the presence of multiple co-morbidities including angina, Type 2 diabetes, hypercholesterolemia, obesity, chronic obstructive pulmonary disease, hypertension and coronary heart disease. All of the patients ( $n=17$ ) attending the Scheme were invited to participate in the study by the exercise professional concerned. Twelve patients consented to participation and 12 of them took part in the interviews on both occasions.

### Data analysis

The *memoranda* that emerged from the coding processes were used as the method for generating grounded theory. *Memoranda* [10] were used as a means of describing and explaining the interactions between the HPs and patients during the consultation phase of exercise referral. Manual data analysis took place in order fully to understand the richness of the data through human interpretation [26]. To ensure a robust approach to the application of grounded theory, a number of critical characteristics were implemented throughout the data analysis. These included consecutive data collection and analysis (longitudinal data collection over 8 months). This enabled the analysis cyclically to inform the data collection process as is recommended in grounded theory studies [10,27]. Sequential analysis facilitated the development of concepts and categories from the data, while at the same time allowing new possibilities to emerge from the data *via* subsequent data collection episodes. The data were analysed systematically by the first author (MQ) to assure the continuation of theoretical development. The second author (DC) reviewed the concepts and categories from the data. *Memoranda* were used to formulate questions for the subsequent set of interviews. The first author (MQ) advanced theoretical development through axial coding and the application of the axial coding paradigm, the second author (DC) assisted by reviewing this process [10]. *Memoranda* were employed by the first author (MQ) to explore the different dimensions of the emergent themes from the axial coded data, the second author (DC) reviewed this process. The final analytical characteristic, used to ensure a robust approach to grounded theory analysis, was the construction of the end product of the research [27]. This involved the first author (MQ) selectively coding the data [10,27] and then developing a "core story" from the axial coded *memoranda*, from which a core category developed. This, in turn, led to the development of a conceptual model, as shown in Figure 1. This was followed by a descriptive account of the findings, supported by evidence from the lived experiences of the participants.

Figure 1 Model of a conceptual framework demonstrating the tactic used to engage the patients with ERS



To ensure further interpretive credibility, the first author (MQ) applied the following aspects of trustworthiness to the data collection process. *Credibility*, through prolonged engagement with the data, triangulation and peer debriefing. *Transferability*, through thick description and theoretical sampling. *Dependability* and *Confirmability*, through providing a clear audit trail. *Reflection*, through reflecting on the self and the method [28].

## Results

The conceptual model is configured around the core category of 'Easier Referral' which is presented in Figure 1. This core category was selected as it was central to all other categories [10]. The core category 'Easier Referral' was selected as it best represented how the referral process affected the number of patients being referred into the scheme. The need for 'easier referral' was the main theme identified in the data.

## Causal conditions

Causal conditions are events that influenced the phenomena under investigation: the 'patient take-up of a practice-based Scheme'. One theme identified from the causal conditions category was 'interaction'. This causal condition had an influence on the referral processes. The property identified from this condition was 'patient characteristics', which considered how certain groups of patients were harder to refer than others. Patient characteristics related to overweight and obesity, which impacted the HPs ability to refer a patient into the Scheme. This property related to specific difficulties associated with discussing weight-related issues with patients.

Health Professional 1 highlighted that tensions could arise when discussing the need for weight management and exercise with obese patients, particularly if the patient was reluctant to change his/her behaviour:

"I should say occasionally there is tension, but tension is an essential part of change... you're there to support them through something that is possibly going to be quite scary for them because most people don't want to change their behaviour."

Health Professional 3 believed that the patient's gender could have an impact on whether tensions could develop during consultation about the need for exercise and weight management:

"You may get more of a problem telling a woman to lose weight than a man. You tread a bit more carefully if you have a woman patient, whereas with a bloke you tend to be a bit more direct. Tensions arise with both women and men but, you tend to be a bit more aware and careful with a woman."

Health Professional 4 was also of the view that it was easier to discuss weight issues with male patients:

"I think it is easier to say to a man, going by my BMI chart on the wall you are overweight, this is how overweight you are and they will take it. Most of them will ignore it but they will actually take it. It's a harder thing to say to a woman as most females are more sensitive about their weight than a male."

## Contextual conditions

Contextual conditions are conditions that intersect at a time and place creating a set of problems to which people respond through actions and interactions [10]. Tactics was the theme identified from the contextual conditions category. The property of the tactics theme related to the use of a 'wake up call' to engage the patients with the exercise referral scheme. The 'wake up call' was a 'shock-tactic' used by some of the HPs to encourage overweight or obese patients to take up the Scheme, where they had previously been reluctant to do so.

Health Professional 1 emphasised the need to communicate the message for weight management and exercise to his patients. He explained that this could be

difficult as some patients did not recognise that they needed to do it:

"You have got to sell the message in a positive way. You know, if you do this, this and this will change. But it is difficult with some who do not want to recognise it."

Health Professional 2 supported the view of communicating a clear message to the patient about weight management and exercise during the initial consultation:

"I think that it is very important. I think that it is a bit like smoking really, I think that it needs to come with a clear message from all health professionals."

The use of shock tactics appeared to be borne out of frustration on the part of Health Professional 1 who experienced a dichotomy between selling the exercise message, while knowing that some patients would not exercise:

"Sometimes we do bully people into doing it and we know that some will not do it, but we feel that we need to as GP's sell the message of exercise and get them to do it. But that can sometimes upset our relationship with the patients, as sometimes there is that tension there you know."

Some HPs indicated how difficult it could be to engage overweight or obese patients into the Scheme and how this had the potential to jeopardize the doctor-patient relationship. These individuals thought that it was their responsibility to inform patients of the consequences of their actions, even when they were reluctant to accept that they were obese. Health Professional 1 believed that this was a difficult thing to do and that a careful and sensitive approach was needed:

"If you say, you are obese, you have to phrase it very carefully and sensitively."

Health Professional 5 identified that an insensitive approach towards obese patients could promote an angry reaction:

"To blandly say you are overweight and need to exercise is a difficult thing to bring into a conversation because some of them take that extremely badly, it is like you have just sworn at them."

## Actions/Interactions strategies

The theme identified in the data was 'directness'. The property of this action strategy related to the nature of the interactions between the HPs and their patients, as a means of persuading them to take up the scheme. The HPs identified that trying to engage obese patients to participate in the Scheme could be difficult. The main reason for this was that some patients were in denial about their obesity and thus the need to exercise. Directness with the patients, while often difficult for the HPs, was a tactic that was used. For example, Health Professional 2 stated that:

"The commonest reaction is that I do not eat anything. My reaction to this is that you obviously need to exercise more because what you are eating is obviously too much, you are not burning it off."

Health Professional 6 emphasised that a consequence of the direct approach was that patients could initially feel upset or angry:

"I have people actually leave the room, stormed out because I have called them obese, but they are."

Some of the patients were able to give examples of how their HPs had used shock tactics as a means of encouraging them to take up the Scheme: For example, Patient 1 stated that his HP had informed him that his health would deteriorate if he did not take up the Scheme:

"He said if you sit around and do nothing you would get big and fat and your muscles deteriorate so my health would get a lot worse."

Patient 2 drew attention to the way her HP had raised the possibility of a reduced life expectancy if she failed to engage with the scheme:

"The very first time I went and was sent for exercise I was poorly, I was overweight and had very bad Angina at the time. I was told I would have a good 20 or so weeks to live if I didn't shift myself and do something different."

Whereas from the perspective of Patient 3, her HP had attempted to shock her into becoming physically active by focusing on her son:

"More or less told me at the beginning that if I didn't lose weight that I wouldn't see my son grow up, get married etc."

Patient 4 highlighted how her HP had been very clear and direct with her, also trying to shock her into taking up and engaging with the scheme:

"Yes I would die. I would shorten my lifespan and probably have a heart attack or a stroke. They could have put it a bit more gently but, it was made very clear to me."

Many of the patients expressed a dislike of the way that some of the HPs had tried to shock them into a behavioural change. For example, Patient 5 explained that:

"He could have used a better manner but he was a health fanatic and felt people should all be slim and couldn't care less about anybody being big."

Whereas Patient 4 felt that her HP could have been gentler in the way the message was communicated to her:

"I felt like I was a child being told off for something, something I knew. I suppose over the years I have got a bit blasé and not bothered really."

Patient 3 reacted badly to the advice she had been given from her HP, who was trying to encourage her to join the scheme:

"I felt absolutely gutted, I think I went home and I cried and cried and cried. I thought, I have got to do something now."

### Consequences of the purposeful actions and interactions

In terms of consequences related to outcomes resulting from the actions and interactions, the theme identified in the data was 'enablers'. The property of this theme related to the nature of the HPs 'initial engagement' with their patients, during the referral process and the impact that this had on the patients. Despite some of the limitations of the direct approach previously discussed, shock tactics appeared to be a factor that enabled the HPs successfully to engage their patients with the Scheme.

When internalisation and self-acceptance of the message had taken place, it was this direct approach that appeared to give the patients the 'wake up' call that motivated them to take-up the Scheme. For example, Patient 3 said:

"That sort of gave me an eye opener and then of course I developed angina and then I had stents put in and I thought this is a real wake-up call."

For Patient 4, it was also the motivation that she needed:

"In a way I was grateful the way they did it because it was the call I needed."

Once the message from the HPs had 'registered' with the patients, shock tactics were considered to be a successful method for engaging the patients with the scheme. Patient 4 had come to realise that her HP was trying to keep her alive:

"It made me feel quite angry and upset, but after a while it sunk in and I realised they are the experts and they are trying to help me stay alive."

For Patient 3 it was making the link between the medical interventions that she had had and the direct advice that her HP had given her that motivated her into taking up the referral and becoming more active:

"I was in self-denial. I used to think no, that's not me they are talking about but once I had the stents put in when Angina was diagnosed that was the turning point. That was when I thought yes, it was you they were talking about and now's the time to get your act together and start doing something."

Therefore, the key finding from this study is that despite the difficulties associated with trying to encourage obese patients to join the scheme, the use of shock tactics can be an effective tool to encourage take-up of an exercise

referral scheme. This is particularly so for hard-to-reach patients, such as those with obesity and related diseases.

## Discussion

Our study summarises the perceived effect of HPs using a specific tactic to engage hard-to-reach patients into an exercise referral scheme. The tactic used consisted of being very direct (shocking) with the patients. We found that shock tactics were used by some HPs during the referral consultation. However, they were only used with a select number of patients, those that had exhausted the medical and surgical options available to them. Shock tactics were initially disliked by the patients, who sometimes reacted badly towards the HP, raising questions of direct relevance to person-centered healthcare. Several of the patients indicated that they disliked the way that their HP had broached the subject of obesity with them, but later identified that the consultation where shock tactics were used, was the motivation necessary to engage them with the scheme.

Very few studies have examined the impact of shock tactics in a Primary Care setting [7-9]. The findings from this research are in contrast to two international studies that identified shock tactics being used to encourage physical activity in diabetic and obese patients [7,8]. International studies have identified that 'provider warnings' (shock tactics) for obese [7] or Type 2 diabetes patients [8] had little effect at helping them manage their condition. In contrast, this research found that by highlighting the negative consequences of obesity and threatening patients with the possibility of a fatal outcome, it was possible to motivate some patients to take control of their obesity. Similarities have been found between this research and aspects of a Philadelphia study [9]. The Philadelphia study also found that scare tactics could be effective at addressing obesity related issues in a Primary Care setting in certain situations, the key factor being careful identification of which patients would respond and which ones would not [9]. In this research the patients were identified on the basis that they had exhausted all medical and surgical options available to them. In many cases exercise was seen as a last chance option by the HP.

This research has produced qualitative evidence on the effectiveness of a direct approach used to encourage some previously hard-to-reach patients to engage with an exercise referral scheme. The strengths of our research include the transferability of its findings to similar settings and the robust approach to data analysis that is commensurate with grounded theory methodology and qualitative research more generally [10,28,29]. However, our study has several limitations and these have to be taken fully into account. The HPs selected for the study were based on a convenience sample, drawn by the clinical lead of the PCHC. This may have resulted in only those participants who regularly referred patients for exercise being included in the study, which may have given a limited perspective. The small sample size in this study

prevents the findings from being generalizable to larger populations. However, the vigorous approach to data analysis and the steps taken to ensure a robust approach to data collection, means that these findings are transferable to similar schemes, situations and participants. Despite the fact that our data are not recent, we believe that they present an accurate interpretation of the HPs' and patients' experiences of an aspect of the referral process for a physical activity intervention at the time.

Identifying the types of patients suitable for such a direct approach should be considered carefully. Further evidence is needed in the form of longitudinal cohort studies to provide the specific evidence needed to substantiate these findings. A recommendation is that UK NHS service commissioners should consider training HPs to identify and engage patients that would benefit from such an approach. This could minimise the potential threat to the GP-patient relationship of major concern in emerging person-centered healthcare frameworks and reduce the risk of harm to them. If HPs were more confident with advising hard-to-reach patients, such as those that are obese, it is likely that they would refer more of them into such Schemes.

## Conclusion

This study adds to the limited knowledge in this particular field by contributing further observations on the use of so called 'shock tactics' in a Primary Care setting as a means of achieving beneficial behavioural change in 'hard-to-reach' patients. Future research in this area should focus on the implementation and effectiveness of training programmes for HPs, to establish their value on a larger scale. It remains unclear how the use of such tactics within the person-centered healthcare frameworks of increasing interest within global healthcare systems and such questions will form important parts of subsequent investigations.

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