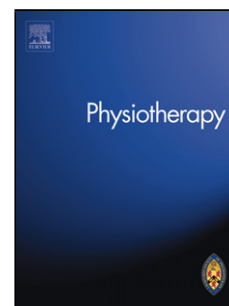


## Accepted Manuscript

Title: Exercise prescription for patients with non-specific chronic low back pain: a qualitative exploration of decision making in physiotherapy practice

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Shea Palmer



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## TITLE PAGE

4

### 5 **Title**

6 Exercise prescription for patients with non-specific chronic low back pain: a  
7 qualitative exploration of decision making in physiotherapy practice.

8

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Accepted Manuscript

30 Title: Exercise prescription for patients with non-specific chronic low back pain: A  
31 qualitative exploration of decision making in physiotherapy practice

32 **Abstract**

33

34 **Title: Exercise prescription for patients with non-specific chronic low back**  
35 **pain: a qualitative exploration of decision making in physiotherapy practice.**

36

37 **Background:** Providing an effective exercise prescription process for patients with  
38 non-specific chronic low back pain (NSCLBP) is a challenging task. Emerging  
39 research has indicated that partnership in care and shared decision making are  
40 important for people with NSCLBP and calls for further investigation into the  
41 approaches used to prescribe exercise.

42

43 **Objective:** To explore how shared decision making and patient partnership are  
44 addressed by physiotherapists in the process of exercise prescription for patients  
45 with NSCLBP.

46

47 **Design:** A qualitative study using a philosophical hermeneutic approach.

48

49 **Methods:** Eight physiotherapists were each observed on three occasions  
50 undertaking their usual clinical activities (total n=24 observations). They conducted  
51 brief interviews after each observation and a later in depth semi-structured interview.  
52 Iterative hermeneutic strategies were used to interpret the texts and identify the  
53 characteristics and processes of exercise prescription for patients with NSCLBP.

54

55 **Findings:** The findings revealed how physiotherapy practice often resulted in  
56 unequal possibilities for patient participation which were in turn linked to the  
57 physiotherapists' assumptions about the patients, clinical orientation, cognitive and  
58 decision making processes. Three linked themes emerged: (1) I want them to  
59 exercise, (2) Which exercise? - the tension between evidence and everyday practice  
60 and (3) Compliance-orientated more than concordance based.

61

62 **Conclusions:** This research, by focusing on a patient-centred approach, makes an  
63 important contribution to the body of evidence relating to the management of  
64 NSCLBP. It challenges physiotherapists to critically appraise their approaches to the  
65 prescription of exercise therapy in order to improve outcomes for these patients.

66

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69

70 Key Words:

71

72 Exercise

73 Back pain

74 Decision making

75 Patient-centred care

76

77

78

78  
79 Introduction:

80

81 Within healthcare, there is a growing interest in enhancing patient participation in  
82 decisions regarding their care [1]. Shared decision making focuses on patients and  
83 clinicians clarifying treatment options and agreeing a preferred management  
84 approach. Patients are viewed as experts on their own health, values and lifestyle  
85 and clinicians as experts about treatment options, potential limitations and benefits  
86 [2]. The potential benefits of shared decision making are most significant in situations  
87 of uncertainty, such as the optimal type of exercise for non-specific chronic low back  
88 pain (NSCLBP) [3, 4] or where two or more clinically reasonable alternatives or  
89 'equipoise' exists [5].

90

91 NSCLBP is a common condition managed by physiotherapists, where exercise is  
92 consistently recommended in treatment guidelines [6]. 'Exercise prescription' is a  
93 term that is often used in the literature [7] and, in physiotherapy practice, exercise  
94 programmes can vary in content and method of delivery [8]. For the purposes of this  
95 study exercise prescription was defined as:

96

97 *"A specific plan of fitness or health-related activities that is designed for a specified*  
98 *purpose, which is often developed by a fitness or healthcare specialist for and in*  
99 *collaboration with the patient."* [9 p. 1]

100

101 There have been calls for further research into exercise prescription, taking into  
102 account issues such as decision making [3, 10] to strategically direct and maximise  
103 the evidence base for musculoskeletal physiotherapy [11].

104

105 This report is part of a larger programme of research which explored the process of  
106 exercise prescription, taking into account issues such as decision making and how  
107 this accords with patient preferences and experiences. Physiotherapists' and  
108 patients' perspectives have been reported separately to allow full exploration of the  
109 data in relation to the relevant literature. This first report focuses on the  
110 physiotherapists' perspectives.

111

112 Method:

113 This study was guided by the philosophical hermeneutic approach of Gadamer, a  
114 branch of interpretive phenomenology which seeks to understand participants'  
115 experiences through the interpretation of text [12]. In this study text was in the form  
116 of observation field notes and transcribed interviews (informal field and semi-  
117 structured). Philosophical hermeneutics does not provide a method for interpretation,  
118 but offers a number of key constructs such as the 'hermeneutic circle', 'fusion of  
119 horizons' and pre-understandings or 'prejudices' of the phenomenon of interest [13].  
120 Gadamer declared that researchers cannot free themselves of what they know or  
121 think and prejudices are seen as a valuable guide to inquiry as understanding only  
122 emerges because the researcher has brought some assumptions to the text [14].

123

124 Identification of their pre-understandings of the topic enhances transparency and  
125 also helps researchers to examine their prejudices and the degree to which these  
126 influence subsequent interpretation. In this study the first author, an experienced  
127 spinal physiotherapist, was able to challenge his own experience and prejudices  
128 about the dominant role of physiotherapists in structuring interactions and making

129 decisions. A reflective journal was kept throughout the research to track emerging  
130 interpretations and ensure 'hermeneutic alertness', where the researcher steps back  
131 to reflect on the meanings of situations rather than accepting their pre-  
132 understandings and interpretations at face value [15].

133

134 Sample and data collection:

135 Potential participant physiotherapists were approached initially by e-mail contact by  
136 the researcher. A stratified purposive sampling approach based on location, clinical  
137 seniority and time since qualification recruited eight physiotherapists over an eight  
138 month period working in one musculoskeletal physiotherapy service delivered across  
139 seven departments in South West England. Physiotherapists encompassed a range  
140 of clinical experience (2–19 years) and all were regularly engaged in the  
141 management of patients with NSCLBP. All physiotherapists approached agreed to  
142 participate and gave informed written consent.

143

144 Each physiotherapist was observed assessing and treating three new patients on  
145 separate occasions, with an informal field interview immediately following each  
146 observation and a final in-depth semi-structured interview after the observation  
147 period (Fig. 1).

148

149 Insert Figure 1 – here

150

151 All observations and interviews were conducted by the first author. By using both  
152 observations and interviews the aim was to gather information as close to the clinical  
153 experience as possible. Observations provided prompts for the later interviews to



154 explore in depth how the physiotherapists gave meaning to and interpreted their  
155 clinical practice.

156

157 Patients who had been referred with a stated diagnosis of LBP were given an  
158 appointment with a physiotherapist and were approached by the researcher prior to  
159 commencement of the assessment. NSCLBP for the purposes of this study was  
160 defined as pain persisting for six weeks or more. Six weeks was chosen as it has  
161 been considered by some to be beyond the period of spontaneous recovery for most  
162 LBP [16]. Patients were given a participant information sheet and offered the  
163 opportunity to ask any questions prior to seeking their written consent to observe  
164 their initial assessment and treatment. No patients refused to participate. Each  
165 observation lasted between 40 and 60 minutes, and was treated as a unique event  
166 with no predetermined categories or notions as to what might be observed to allow  
167 for a more open minded and context sensitive approach.

168

169 Semi-structured interviews were undertaken with each physiotherapist within two  
170 weeks of completing the observations. A series of broad topic headings was  
171 developed for the interview guide, fostering flexibility in exploring physiotherapists'  
172 clinical practice, decision making processes and experiences. The topic guide was  
173 continually adapted on the basis of findings from the observations and informal field  
174 interviews (please see the final version in the supplemental information).

175

176 All interviews were digitally recorded and transcribed verbatim by the first author to  
177 maximise familiarity with the data. Each participant's text set was anonymised. From

178 this intensive engagement, hermeneutic texts were constructed which consisted of  
179 24 observation field notes, 24 informal interviews and 8 semi-structured interviews.

180

181 Data analysis:

182 Interpretation of the texts was undertaken by the first author (RS) based on a  
183 thematic analysis [17] guided by the principles of Gadamerian hermeneutics [12, 13]  
184 (Table 1).

185

186 Insert Table 1 – here

187

188 No independent analysis of the data was undertaken based on the basic tenets of  
189 philosophical hermeneutics whereby a dialogue takes place between the researcher  
190 and text. Therefore different researchers bring to the analysis their own pre-  
191 understandings with respect to past experiences, and so consensus is not expected  
192 or required using this approach. The prior clinical experience of the first author (RS)  
193 is likely to influence the interpretive perspectives and ways of constructing meaning,  
194 but Gadamer considered this necessary for full understanding [12]. However, to  
195 ensure dependability, a second author (TM) facilitated refinement of the thematic  
196 analysis through peer review and auditing [18]. Participant quotes beginning with an  
197 O are taken from the observations or informal field interviews, all other quotes are  
198 taken from the semi-structured interviews.

199

200

201 Findings:

202 Three main themes directly relevant to how decisions are reached in the process of  
203 exercise prescription were formed from the texts (Table 2). The findings provide a  
204 complex understanding of how physiotherapists regard and apply exercise based  
205 management strategies to patients with NSCLBP, often resulting in unequal  
206 possibilities for patient participation.

207

208 Insert Table 2 – here

209

210

### 211 **Theme 1: I want them to exercise**

212 This theme considers the way physiotherapists reached treatment or management  
213 decisions. The majority of physiotherapists used a process of decision making that  
214 was based on either their personal preference for, or experience of, different  
215 interventions rather than arrived at by mutual agreement. The following emerged as  
216 sub themes.

217

218 *Defining the options available:* an important context for shared decision making  
219 involves the clinician providing information to the patient on the management options  
220 in an unbiased way [5]. In this study there was little evidence of the patients being  
221 offered a choice of different management options, as exercise was regarded as the  
222 'default' treatment approach:

223

224 *"I have to say I don't particularly ask the patient what they want. I think giving*  
225 *them so much choice, they can often get confused, it is almost too much for*  
226 *them." (T5.40)*

227

228 *"I must admit for every low back pain I have coming in through my door I*  
229 *pretty much will always give them exercise. So I must admit I don't think about*  
230 *it too hard, it would be the first thing I would choose to do rather than do*  
231 *something else first." (T1.31-33)*

232

233 *I try and get people to think about it from my point of view:* Physiotherapists listened  
234 attentively to the patients' stories which often included information and cues about  
235 their experiences with exercise interventions as part of treatment previously  
236 received. However this was rarely reflected in the decision making which was  
237 ostensibly driven by clinician's preference rather than those of patients:

238

239 *"I try and get people to think about, from my point of view I want them to*  
240 *exercise so that they actually get used to getting their spine moving again."*  
241 *(T1.18)*

242

243 This was revealed in the observation of one patient who talked about regularly  
244 consulting and benefiting from treatment by a manual therapist. The patient's  
245 response to the physiotherapist's suggestion that exercise would be one of the best  
246 ways to manage the problem was:

247

248

249           *“I’ve tried exercise religiously in the past, it made no difference, it was*  
250           *ridiculous.” (OT1 (17).14)*

251

252   Despite the patient expressing clear doubts the physiotherapist continued to  
253   prescribe an individual exercise programme contrary to the patient’s preferences:

254

255           *“He had tried exercises in the past from a previous physio that he didn’t find*  
256           *helpful even though he said he had tried them religiously. So it is difficult to*  
257           *know how compliant he will be. I think he was willing to try them again.” (OT1*  
258           *(17).20-21)*

259

260   *Checking patient understanding and ability to implement the plan:* to effectively  
261   participate in decision making, patients should have some understanding of their  
262   problem and the benefits and limitations associated with treatment options [5].  
263   Physiotherapists frequently questioned whether their explanations had gone far  
264   enough, such that on occasions they questioned whether patients would actually  
265   return for review:

266

267           *“I’d like to think she has taken on board everything I’ve said, and that*  
268           *therefore she had a fairly good understanding. I have misgivings however; I’d*  
269           *be interested to find out whether she has done any of it or in fact comes*  
270           *back.” (OT6 (7).22)*

271

272 The physiotherapists' approach to implementation of an exercise programme  
273 suggested a tendency to provide perceived beneficial treatments over informed  
274 patient choices based on a process of implied consent:

275

276 *"A good proportion of the time I will say 'look this is what I think is up, this is*  
277 *what I think will help you, what do you think, do you agree and are you happy*  
278 *to do that?'" (T4.49-51)*

279

280 From these comments it could be concluded that very little shared decision making is  
281 likely.

282

283

284 **Theme 2: Which exercise? - the tension between evidence and everyday**  
285 **practice**

286

287 This theme can be broken down into a range of sub themes which encapsulate the  
288 struggle to balance competing priorities of research evidence, patients' preferences,  
289 as well as the physiotherapist's own attributions and perceived professional role  
290 when deciding on the type of exercise to be prescribed.

291

292 *Interpreting the evidence:* physiotherapists' interpretation of the evidence led to a  
293 widely held belief that engaging patients with NSCLBP in some form of general  
294 exercise, and not particular types of exercise, was the most important factor:

295

296 *“Evidence tends to imply that any form of exercise is going to be helpful in the*  
297 *long run, it’s just about getting out there and doing it.” (T1.48)*

298

299 *Exercise needs to be fun:* physiotherapists talked about the need for patients to  
300 ‘enjoy’ exercise to want to engage in and continue doing it, potentially taking into  
301 account the influence of patients’ values and perspectives on exercise, and on  
302 factors that could empower patients to take control by generating their own ideas on  
303 exercise:

304

305 *“I guess some patients come in with specific ideas or they are already*  
306 *attending yoga or pilates, and I think it is worth taking on board what they*  
307 *bring in with them rather than what you think....” (T4.63)*

308

309 *It depends on what I find:* in contrast to the previous two sub themes, seven  
310 physiotherapists stated that the objective assessment in terms of finding positive and  
311 negative evidence towards specific postural, structural or biomechanical problems  
312 predominated in determining the exercise prescribed:

313

314 *“Overall once I’ve decided to include it, the objective assessment plays a very*  
315 *large role in the choice of specific exercises. I will tend to work out what I think*  
316 *is best.” (T4.35)*

317

318 In spite of the frequently reported use of a specific exercise programme, several  
319 physiotherapists also questioned the merits of such an approach, feeling that

320 patients would be less likely to engage with an exercise programme perceived as  
321 'boring' and possibly not offering immediate tangible benefits:

322

323 *"I think a specific exercise programme of what are often particularly boring*  
324 *exercises, a patient is likely to do them in the short term I suspect, but only if*  
325 *they see some improvement in their pain."*(T6.56-57)

326

327 Physiotherapists also talked about the tendency to '*want to give the patient*  
328 *something*'. This may reflect a situation that serves the physiotherapist's needs more  
329 than the patient's, fulfilling a perception of '*what I should do*' as a physiotherapist:

330

331 *"I think the pressure comes from lots of different angles, it probably comes*  
332 *from myself, in that I want to give them something to take away from the*  
333 *session, if only it's an exercise or two I feel I should give the patient*  
334 *something."* (T6.86)

335

336 One physiotherapist offered a unique and insightful perspective in believing a  
337 philosophical shift is needed as to how physiotherapists think about their role:

338

339 *"On a philosophical level perhaps we should not think of ourselves as*  
340 *therapists but more of a health counsellor, and not sitting with our therapist*  
341 *hat on 'I am going to give you therapy, because I am a physiotherapist'."*  
342 (T7.94)

343

344



345 **Theme 3: Compliance-orientated more than concordance based**

346

347 In this theme physiotherapists talked about the most likely influences impacting on a  
348 patient's ability to engage with an exercise programme. By eliciting this information it  
349 could be argued that the physiotherapists were adopting a patient-centred approach  
350 in terms of understanding the patients in terms of their unique individuality. However  
351 their approach could be interpreted as a form of 'bargaining' or trying to obtain  
352 compliance to their suggestions and expert recommendations, rather than a  
353 concordant approach in which power, responsibility and control over decision making  
354 is equally shared.

355

356 *Pinpointing the barriers:* the physiotherapists felt that the social circumstances and  
357 busy lifestyles of the patients suggested they have little time available to exercise.  
358 Negotiation then involved determining how exercise can be incorporated into the  
359 patient's lifestyle.

360

361 *"I often give them a programme that only consists of 3 exercises that only take*  
362 *3 to 4 minutes to do 2 to 3 times a day. I say 'do you have enough time to*  
363 *make a cup of tea or brush your teeth' and they'll go 'yes' , and I say 'this is*  
364 *just exactly the same it is something you have got to slot in, that will be part of*  
365 *your lifestyle now and for the foreseeable future."* (T5.47-48)

366

367 Worsening pain during exercise is regarded as a potential barrier to patients  
368 undertaking an exercise programme [19]. Yet, in spite of offering messages aimed at  
369 reducing patients' fear or anxiety about pain, what was apparent from this study were

370 the physiotherapists' own reported concerns of increasing pain by using an exercise  
371 based intervention [20]:

372

373 *"I try and talk to them about how pain is very normal; pain is not a reason to*  
374 *fear, it doesn't mean harm or damage."* (T1.77)

375

376 Physiotherapists who are intolerant of uncertainty defined as *"the tendency to react*  
377 *negatively on an emotional, cognitive and behavioural level to uncertain situations*  
378 *and events"* may have a stronger belief that patients could experience an adverse  
379 reaction in terms of increased pain to exercise and activity [21].

380

381 *"I think it's quite important to make sure whatever we suggested in terms of*  
382 *exercise isn't worsening their pain, because that's a bad thing, they'd also*  
383 *then have a bad impression of physiotherapy."*(T6.79)

384

385 *Keep it simple:* use of a 'simple' exercise programme was seen as the solution to the  
386 perceived barriers such as habitual inactivity, lack of time, or where concerns existed  
387 about exercise increasing the pain.

388

389 *"I just want to make sure that they do something that's simple and not*  
390 *particularly difficult or challenging and get them on board that way....."* (T6.46)

391

392 Discussion:

393 This study supports the suggestion that physiotherapy practice is not always  
394 consistent with models of patient-centred care identified in the physiotherapy

395 literature [22, 23] and frameworks underpinning a shared decision making  
396 consultation [2, 5].

397

398 An important context for shared decision making is the existence of 'equipoise',  
399 where competing management options need to be deliberated, taking into  
400 consideration patients' informed preferences [5]. However in situations where health  
401 professionals hold strong views regarding the evidence for certain treatment  
402 approaches equipoise is unlikely to exist. With the exception of one participant, there  
403 appeared to be a degree of power asymmetry in that the responsibility for making  
404 decisions lay largely with the physiotherapists, rather than a collaborative patient-  
405 centred approach. With the patient's readiness and willingness to instigate the  
406 proposed plan based on an implied consent model [24]. This may be part of the  
407 functioning necessary for achievement of clinical activities such as exercise  
408 prescription as it establishes and maintains the clinical relationship in terms of both  
409 parties treating the clinician as the one to provide authoritative treatment [5].  
410 Accepting that not every patient would want to be involved in the decision making  
411 due to information and power imbalances in the relationship [25, 26], patients were  
412 rarely asked to identify their own values or preferences for treatment involving  
413 exercise, and what would serve as an acceptable goal or outcome from the episode  
414 of care. The absence of goal setting supports the findings of previous research [27],  
415 despite it being considered by the American College of Sports Medicine (ACSM) to  
416 be the most important undertaking in developing a programme of regular exercise  
417 [28].

418

419 Determining the type of exercise revealed a tension between physiotherapists'  
420 interpretation of the evidence and their everyday practice. For this group of  
421 physiotherapists an apparent conflict existed between empowering patients to take  
422 control by undertaking an exercise programme they found fun or enjoyed, and  
423 offering a 'specific' exercise programme based on physical impairments and pain  
424 patterns derived from assessment [29].

425

426 Although participants talked about the limitations of a physiotherapist designed home  
427 exercise programme in this patient group, it still appeared to be part of their normal  
428 routine. It could be that the physiotherapists felt they had not done their job properly  
429 unless they gave the patient a specific regime of home exercises to do, reinforcing  
430 their own professional identity as 'physiotherapists'. The way in which  
431 physiotherapists act is often constrained by the situation, with ready-made routines  
432 [30]. This may be the case for the physiotherapists in this study, in that the decision  
433 to use exercise, perhaps even a typical 'recipe' of exercises, defines the normal  
434 routine or customary practice.

435

436 Throughout the study use of the term 'prescription' was open to interpretation. Based  
437 in part on the desire by the physiotherapists to encourage patients to exercise, the  
438 notion of fostering patient engagement suggested a tendency towards a compliance  
439 based approach. Through this approach patients were encouraged to conform in  
440 some way to the recommendation to exercise rather than a collaborative  
441 (concordant) approach in which goals and preferences for therapy were discussed  
442 and mutually agreed between the patient and physiotherapist [25, 27].  
443 Physiotherapists' main strategy to foster patient engagement was to keep the

444 exercises simple so that the patient would do 'something', and the option 'to do  
445 nothing' in terms of a treatment intervention did not appear to sit comfortably with  
446 some physiotherapists.

447

448 Strengths and limitations:

449 The purposive sampling strategy was successful in recruiting physiotherapists with  
450 extensive experience of managing patients with NSCLBP using exercise based  
451 management strategies which adds to the credibility of their accounts. This together  
452 with the direct observation of the physiotherapists' means there is good reason to  
453 believe that clinical practices and values that were expressed during the interviews  
454 were an accurate reflection of their normal practice, and potential biases such as  
455 socially desirable responses were minimised. Mulhall [31] also felt most  
456 professionals are too busy to maintain behaviour that is radically different from  
457 normal thus limiting the potential effect of the physiotherapist observer on clinical  
458 practice.

459

460 Deciding on appropriate research methods to capture evidence of shared decision  
461 making occurring in clinical encounters is a challenge. For the purposes of this  
462 research shared decision making was considered a process in which  
463 physiotherapists adopted specific behaviours to achieve a mutually agreed health  
464 care choice with patients. Nevertheless power relationships in most healthcare  
465 consultations are asymmetric, with the health care professionals approach typically  
466 dominating the interactional process, as patients rarely ask to be involved in decision  
467 making [26]. This perception of apparent asymmetry in decision making is, however,  
468 not necessarily wrong and may be part of an interaction that is collaboratively

469 produced by the patients and physiotherapists to establish and maintain the clinical  
470 relationship. To investigate this further details concerning how NSCLBP patients  
471 interpret their experiences and preferences for involvement in decision making  
472 regarding exercise interventions have been reported in Stenner *et al.* [32].

473

474 Conclusions:

475 Physiotherapists used a process of decision making consistent with a practitioner  
476 centred process with an emphasis on a didactic and compliance orientated delivery  
477 of exercise, with patients having little voice or interaction in the decision. The findings  
478 offer a deeper understanding of the potential mismatch that exists between the  
479 rhetoric of health care policy and clinical practice. Part of the explanation for this  
480 mismatch could be based on how sharing of decisions is viewed and defined by both  
481 physiotherapists and patients. However the findings from this research suggests that  
482 physiotherapists should reflect on their practice and critically appraise their  
483 approaches to the prescription of exercise therapy in the management of patients  
484 with NSCLBP to ensure that the care they deliver is truly patient-centred.

485

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489

490

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570

## TABLES and FIGURES

Steps in the analysis	Description of each step in the analytic process
1.Creating the texts:	Creating the texts, listening, reading and being immersed in each participant's text.
2.Identifying interesting features:	Making notes of initial ideas, interesting features and messages in their texts.
3.Initial coding:	<p>A hermeneutic view resists the idea that there can be one single authoritative reading of a text. To increase the rigour of analysis a three stage iterative process was undertaken:</p> <ol style="list-style-type: none"> <li>1. Mainly descriptive attempt at coding</li> <li>2. Initial coding hidden and a second round of coding based on a tentative interpretation from the researcher's horizon was undertaken</li> <li>3. A final coding based on a conclusive interpretation was written</li> </ol> <p>Coding tables for each of the participants were then constructed with the corresponding data extracts.</p>
4.Development of themes:	A manual approach was used to identify the common patterns in the texts to form potential sub-themes and themes, relating these themes to data extracts from each participant.
5.Refining the themes:	The main themes and sub-themes were further refined through continuation of the iterative process. Individual text interpretation summaries were sent to each participant to allow them to comment on the interpretations made by the researcher. Key themes were then presented to two colleagues with experience of managing patients with NSCLBP for their opinions as to whether the interpretations were acknowledged as conversant to their own experiences. <sup>(13)</sup>
6.Producing the report:	Relating the analysis back to the research aims and literature, and producing a scholarly report of the analysis.

571

572 Table 1. The process for interpretation of the texts.

573

Themes	Sub themes
1. I want them to exercise	<ul style="list-style-type: none"> <li>• Defining the options available</li> <li>• I try and get people to think about it from my point of view</li> <li>• Checking patient understanding and ability to implement the plan</li> </ul>
2. Which exercise? - the tension between evidence and everyday practice	<ul style="list-style-type: none"> <li>• Interpreting the evidence</li> <li>• Exercise needs to be fun</li> <li>• It depends on what I find</li> </ul>
3. Compliance-orientated more than concordance based	<ul style="list-style-type: none"> <li>• Pinpointing the barriers</li> <li>• Keep it simple</li> </ul>

574

575 Table 2. Themes and sub themes relating to how shared decision making and patient  
576 participation are addressed in the process of exercise prescription.

577 *Themes were developed and refined through an evolving iterative process (see Table*  
578 *1). Where appropriate the participants' own language has been retained in the theme*  
579 *headings.*

580

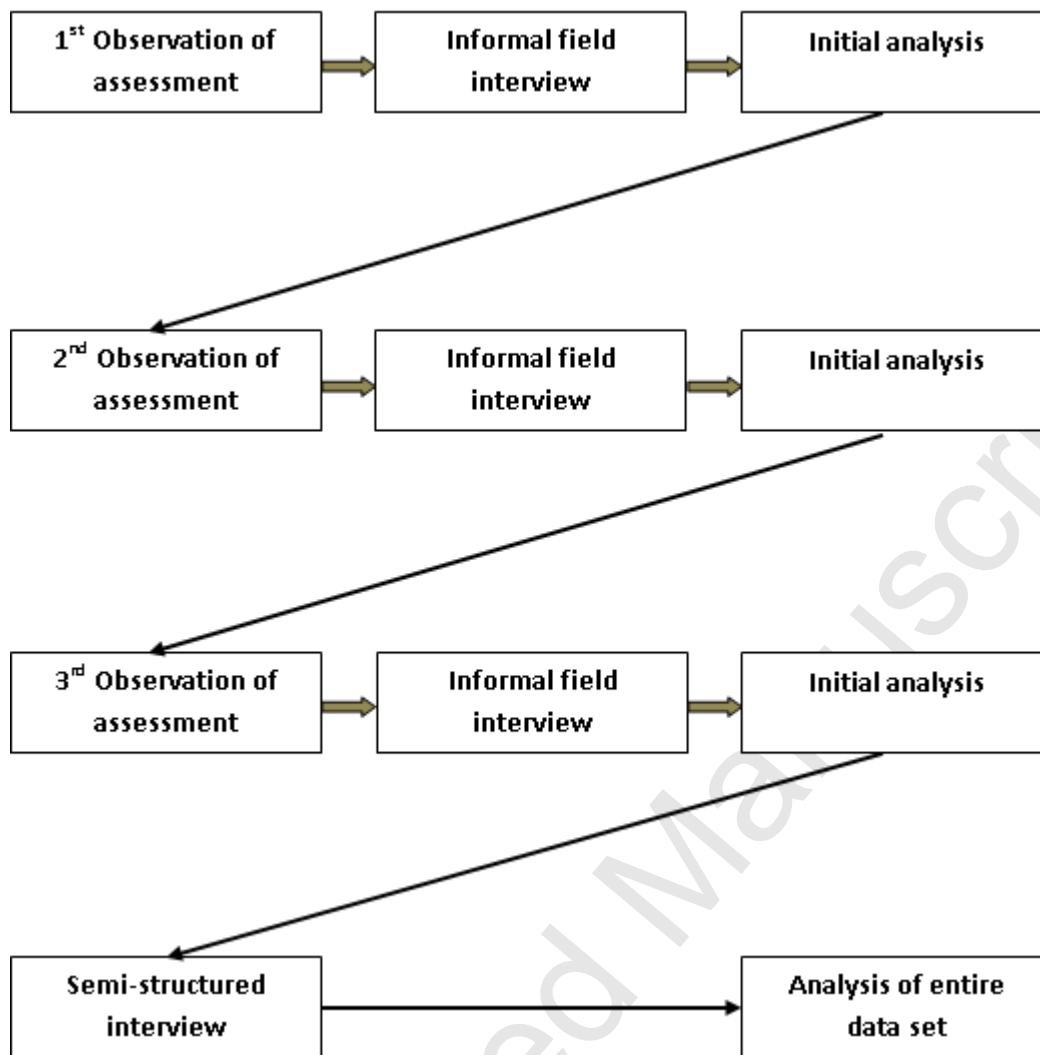


Figure 1. The sequence of interviews with and observations of physiotherapists and their patients.