

Therapeutic alliances in stroke rehabilitation: a meta-ethnography

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Published version

LAWTON, Michelle, HADDOCK, Gail, CONROY, Paul and SAGE, Karen (2016). Therapeutic alliances in stroke rehabilitation: a meta-ethnography. *Archives of Physical Medicine and Rehabilitation*, 97 (11), 1979-1993.

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1 **Therapeutic alliances in stroke rehabilitation: A meta-ethnography.**

2

3 **Abstract**

4 *Objective:* To synthesise qualitative studies exploring patients' and professionals'
5 perspectives and experiences of developing and maintaining therapeutic alliances in stroke
6 rehabilitation.

7

8 *Data Source:* A systematic literature search was conducted using the following electronic
9 databases: PsychInfo, CINAHL, EMBASE, Medline, AMED, ASSIA, ComDisDome from
10 inception to May 2014. This was supplemented by hand searching, reference tracking,
11 generic web searching and e-mail contact with experts.

12

13 *Study selection:* Qualitative peer reviewed articles reporting experiences or perceptions of
14 the patient or professional in relation to therapeutic alliance construction and maintenance
15 in stroke rehabilitation were selected for inclusion. Following a process of exclusion,
16 seventeen publications were included in the synthesis.

17

18 *Data extraction:* All text identified in the 'results' and 'discussion' sections of the selected
19 studies were extracted verbatim for analysis in a qualitative software programme. Studies
20 were critically appraised independently by two reviewers.

21

22 *Data synthesis:* Articles were synthesised using a technique of meta-ethnography. Four
23 overarching themes emerged from the process of reciprocal translation: (1) the
24 professional-patient relationship: degree of connectedness; (2) asymmetrical contributions;
25 (3) the process of collaboration: finding the middle ground; and, (4) system drivers.

26

27 *Conclusion:* The findings from the meta-ethnography suggest that the balance of power
28 between the patient and professional is asymmetrically distributed in the construction of
29 the alliance. However, given that none of the studies included in the review addressed
30 therapeutic alliance as a primary research area, further research is required to develop a
31 conceptual framework relevant to stroke rehabilitation, in order to determine how this
32 construct contributes to treatment efficacy.

33

34

35

36

37 **Keywords:** Rehabilitation; Stroke; Professional-Patient Relations; Power (psychology);

38 Qualitative Research.

39

Therapeutic alliances in stroke rehabilitation

40 Abbreviations:

41 Critical Appraisal Screening Programme (CASP); International Classification of functioning

42 (ICF); Therapeutic Alliance (TA)

43

Therapeutic alliances in stroke rehabilitation

44 In the field of psychotherapy, the quality of the relationship between the therapist and
45 patient, also known as the therapeutic alliance (TA), represents a major variable in
46 treatment outcome in the therapeutic process.^{1,2} TA, sometimes referred to as working
47 alliance, is an umbrella term used to describe the interpersonal processes operating during
48 therapeutic encounters.³ Its roots are firmly established in the field of psychotherapy and its
49 emergence dates back to Freud's theory (1912)⁴ of transference and counter transference.
50 The conceptualisation of TA was further developed by Bordin⁵ (1979), who proposed a
51 tripartite model based on: congruence in relation to the *goals* and purpose of therapy (1);
52 collaboration on explicit *tasks* to meet those goals (2); and establishment of an emotional
53 *bond*, characterised by trust and liking between the client and the therapist (3). Bordin
54 proposed that the construct of therapeutic alliance could be applicable to all change
55 situations, consisting of a change agent and a person seeking change, independent of
56 treatment modality.⁶

57

58 The development of an effective therapeutic alliance has been found to be positively
59 associated with treatment efficacy across a range of psychotherapeutic treatment
60 modalities and aetiologies,^{1,2} suggesting that TA is a variable component of therapy "in and
61 of itself".^{7 (p92)} There is burgeoning evidence to suggest that TA may be an essential
62 component in all therapeutic encounters in the field of allied healthcare and medicine.⁸⁻¹¹
63 Establishment of an affective bond between the provider and patient has been positively
64 associated with treatment adherence^{9,12,13} and health outcomes, including pain
65 management, functional and physiological status¹⁴ and symptom resolution.¹⁵ In a
66 systematic review, Hall et al.¹⁰ reported a positive effect of establishing a good TA on

67 treatment outcome in physical therapy. Similarly, studies in the field of brain injury have
68 reported positive associations between an effective TA and treatment adherence and
69 outcome.¹⁶⁻¹⁹

70

71 TA may have the potential to unlock some of the problems associated with adherence and
72 engagement in rehabilitation,²⁰⁻²¹ which may help us understand why clinicians achieve
73 different outcomes when the content of therapy remains the same.²² Indeed, the centrality
74 of collaborative goal setting in the rehabilitation process is widely acknowledged²³⁻²⁴ and
75 has been found to affect participation, motivation²⁵ and satisfaction.²³ TA, as a construct,
76 appears to be of particular relevance to stroke rehabilitation because rehabilitation aims to
77 promote recovery through optimising function and adaptations²⁶ and therefore requires the
78 establishment of a common purpose²⁷⁻²⁸ and a shared commitment to engage in therapeutic
79 activities required for goal achievement²⁹ within a context of mutual trust and empathy³⁰.

80

81 The primary objective of this meta-ethnography was to synthesise patients' and
82 professionals' perspectives and experiences of developing and maintaining therapeutic
83 alliances in stroke rehabilitation. Although TA as a construct has yet to be applied
84 qualitatively to the field of stroke rehabilitation, there are studies which explore aspects of
85 the TA, such as therapeutic relationships or collaborative goal setting. This synthesis
86 therefore aimed to create a deeper understanding of TA as a whole from its component
87 parts. The secondary objective of this synthesis was to investigate the utility of
88 psychotherapeutic constructs of TA, in particular, Bordin's pantheoretical construct of TA, to

89 the field of stroke rehabilitation. The technique used to synthesise the data was meta-
90 ethnography which was specifically chosen as it lends itself to the application of theory and
91 model generation of experiences³¹, can be used to present a novel interpretation of “the
92 collective that may differ remarkably from the component parts”^{32 (p326)} and has been used
93 extensively in the field of healthcare to examine experiences and views.³³⁻³⁴

94

95 **Methods:**

96

97

98 *Design:*

99

100

101 A tripartite design was employed: 1) systematic search; 2) critical appraisal and; 3) synthesis,
102 based on Noblit and Hare’s (1988)³⁵ meta-ethnographic approach, adopted by Britten et al.,
103 (2002)³⁶ and Atkins et al., (2008).³¹

104

105 *Search strategy*

106

107

108 A systematic search of electronic databases was undertaken using PsychInfo, CINAHL,
109 EMBASE, Medline, AMED, ASSIA and ComDisDome from inception to May 2014, by the first
110 reviewer (ML). Key terms relating to a broad definition of TA, stroke rehabilitation, and
111 perceptions were selected for the search strategy, using a modified version of the SPIDER
112 search strategy tool³⁷ (Table 1). Subject headings were identified and modified for individual
113 databases, in addition to using free text terms. The following search strategies were
114 employed to compensate for problematic indexing and inadequacies of retrieval terms:³⁸ (1)
115 hand-searching relevant journals in the field of rehabilitation (Topics in Stroke
116 Rehabilitation, Clinical Rehabilitation, Journal of Interpersonal Communication Disorders);
117 (2) manually searching bibliographies and undertaking forward citation searches of articles
118 selected for full text screening; (3) contacting experts with specialist knowledge of TA within
119 the field of rehabilitation; and (4) generic web searching (google scholar).

120

121

122 *Study selection*

123

124

125 Abstracts and titles from the database searches were screened for relevance, by the first
126 reviewer (ML) and selected if they met the following criteria: (1) qualitative data in a peer
127 reviewed journal, (2) experiences and/or perspectives of the rehabilitation specialist and/or
128 patient, (3) TA or an aspect of the TA was discussed as the main conceptual focus of the

129 paper, (4) findings relating to stroke rehabilitation from an adult population, (5) available in
130 English as a full article.

131

132 Studies were excluded if they reported mixed population data, with no stroke specific
133 findings, because the process and, therefore, the experience of rehabilitation^{26,39,40} and goal
134 setting⁴¹ for stroke patients is likely to be different to other neurological conditions.

135

136 References were imported into EndNote X7 software⁴² and duplicates were deleted. Full
137 texts of potentially relevant articles were retrieved and then scrutinised independently by
138 the first (ML) and last author (KS). Study inclusion was agreed via consensus.

139

140

141 *Critical appraisal*

142

143

144 There is currently no universally accepted approach to evaluating the methodological
145 quality of qualitative studies⁴³ and debate continues over the merits of using quality
146 checklists and tools.⁴⁴ As such, it remains unclear as to whether articles should be excluded
147 based on quality appraisal.⁴⁴ Given that the quality of the written report does not always
148 reflect the actual conduct of the research³¹ and the objective of the paper was to explore

149 perspectives and experiences of developing and maintaining TAs, all articles were included
150 regardless of methodological quality, to ensure all relevant findings were reported. Quality
151 assessment was used descriptively to reflect on the strength of the findings.

152

153 To review the quality of the research, the Critical Appraisal Screening Programme (CASP)⁴⁵
154 for qualitative research was chosen. The CASP consists of a 10 question checklist evaluating
155 rigour, credibility and relevance. Each question contains prompts to examine: research
156 design, recruitment strategy, data collection, researcher and participant relationship,
157 research ethics, data analysis, findings and contribution to knowledge. A 3 point rating
158 system⁴⁷ was used to appraise all studies (Table 2). Two reviewers (ML, KS) independently
159 assessed each article for methodological quality, using the CASP criteria. Differences in
160 opinion were mediated through discussion and agreed via consensus.

161

162

163 *Data extraction and synthesis*

164

165

166 Data were extracted using a standard form detailing the aims, methods, theoretical
167 framework and context of each study. The 'findings' and 'discussion' sections of the selected
168 articles were imported verbatim into QSR NVivo 10 software programme⁴⁷ for further
169 analysis.

170

171 This review adopted a meta-ethnographic methodology, which combines both an inductive
172 and interpretive approach to knowledge synthesis.³⁵ This meta-ethnographic approach is
173 characterised by seven stages, which do not exist in isolation but overlap and are subject to
174 repetition³⁵ (Table 3).

175

176 The first author re-read the studies several times and generated a list of key metaphors or
177 constructs from each paper³⁵ (phase 3). In order to determine how the studies were related
178 to each other, three members of the research team (ML, KS, collaborator) independently
179 created 'conceptual maps' from the list of key constructs, to establish the relationship
180 between studies. Overarching themes were used to frame and organise the key constructs,
181 which were subsequently merged and juxtaposed until consensus was reached regarding
182 the emergent relationships between the salient constructs (phase 4).

183

184 The overarching themes identified were broad enough to encompass the key constructs
185 across all the papers and, for this reason, the synthesis took the form of a 'reciprocal
186 translation', a process in which one study is translated into another by comparing the extent
187 to which findings and constructs from one paper are related to those in another.³⁵ An index
188 paper⁴⁸ was identified as a starting point for translation which reflected the core concepts
189 relevant to TA in stroke rehabilitation and subsequent papers were compared with this
190 paper, and so on, until all the papers had been translated into one, encompassing the
191 relevant concepts within all studies. New themes and constructs were added as part of an

192 iterative approach. Perceptions derived from patients and professionals were differentiated
193 in order to identify similarities and differences in perceptions. Table 4 displays a summary of
194 the abstracted findings from the process of translation (phase 5).

195

196 The process of developing a line-of-argument synthesis involved: 1) re-reading the
197 reciprocal translations and studies on numerous occasions; 2) analysing the data
198 thematically; and, 3) interpreting the findings (phase 6). Each member of the team
199 subsequently reviewed the emergent line-of-argument synthesis and confirmed whether
200 the first author's interpretation was consistent with the translated themes and key
201 constructs of the findings from the original studies. The current synthesis was expressed in
202 the form of a diagrammatic model to facilitate effective communication (phase 7).

203

204

205 Rigor

206

207

208 A meta-ethnography, by its very nature, is not replicable, nor does it attempt to be; rather it
209 represents a "reading" of studies and, as such, it is likely that other readings may identify
210 alternative interpretations.³⁵ Noblit and Hare suggest that these interpretations must be
211 grounded in the primary articles selected for synthesis.³⁵ The authors employed several
212 strategies to ensure that the synthesis was 'grounded' in the data extracted from the

213 original studies via: preservation of the authors' terminology, conducting regular team
214 debrief meetings to discuss emergent themes and challenge emergent translations, keeping
215 extensive documentation and audit trails, and, secondary reviewers reading and validating
216 the process of synthesis. Rigor was further enhanced by the use of systematic search
217 strategies and critical appraisal. The first researcher's own biases as a speech and language
218 therapist may have differentially affected the interpretative process of synthesis, however
219 members of the team had different clinical backgrounds, which served to challenge
220 potential bias, enhancing the trustworthiness of the findings.

221

222

223 **Results:**

224

225

226 *Sample*

227

228

229 A total of 5787 titles were identified for review. Seventeen studies were subsequently
230 identified for inclusion (Figure 1), published between 1995 and 2014. TA was not identified
231 as a primary focus of interest in any of the studies; rather a component of TA was discussed
232 as the main focus of interest. Several studies explored the role of collaborative goal setting
233 in stroke rehabilitation.⁴⁹⁻⁵⁴ Others focused on aspects of communication and relationship

234 development^{48,55-58}(Table 5). Studies largely featured participants' early experience of stroke
235 rehabilitation, primarily on inpatient units⁵⁰⁻⁶³; only a small number of studies explored an
236 aspect of TA in the later stages of rehabilitation.^{48-49, 64}

237

238 The methods employed to capture participants' perceptions and experiences were largely
239 interviews (n=13), which were framed within a range of epistemological paradigms,
240 although these were not consistently specified. There was considerable variability in the
241 methodological quality of included studies, with 2 studies^{55,59} consistently providing limited
242 or no justification for 6 or more of the CASP dimensions. The major areas of methodological
243 weaknesses across studies related to: the inadequacy of evidence of reflexive practice^{48-51,}
244 ⁵³⁻⁶⁴, insufficiency of evidence of ethical consideration^{48-49,54,56,58-64} and a lack of transparency
245 in analysis.^{55,59-60,62}

246

247

248 *Participants*

249

250

251 The sample was diverse (n=432), encompassing professionals from a range of fields (n=169).
252 Physiotherapists (n=50) and speech and language therapists (n=50) represented a larger
253 proportion of the sample, whilst doctors (n=10), nurses (n=25) and occupational therapists
254 (n=15) were under-represented in the sample. Stroke patients (n=263) had a range of

255 deficits, including aphasia; however this was not consistently specified. At least seven
256 different developed countries were represented in the sample. Study characteristics are
257 displayed in Table 5.

258

259

260 *Synthesis*

261

262

263 Four overarching themes were identified from the process of reciprocal translation: 1) the
264 professional-patient relationship: connectedness, 2) asymmetrical contributions, 3) the
265 process of collaboration: finding the middle ground, and, 4) system drivers.

266

267

268 ***Professional-patient relationship: connectedness***

269

270

271 Connectedness embodies the degree of cohesion and establishment of a genuine bond
272 within the therapeutic relationship. All stakeholders believed that a solid therapeutic
273 relationship was a crucial component of purposive stroke rehabilitation.^{48,55-57,60} Patients, in
274 particular, believed that the therapeutic relationship was of paramount importance,

275 commensurate with the therapeutic activities targeted.⁴⁸ In the aftermath of stroke,
276 patients assumed a position of vulnerability and dependence^{48,57,59,61-62} and, as such,
277 assigned considerable importance to an attitude of caring,^{48,61-62} in contrast to speech and
278 language therapists who primarily fostered rapport in an effort to promote therapeutic
279 efficacy, as part of “doing a job”.^{48 (p284)} Despite these differences in priorities, the majority
280 of patients reported that they had confidence in and trusted their healthcare
281 professional.^{48,54-56,59,61,63} “I asked her quite blankly, ‘Are we getting anywhere or not?’ She
282 said, ‘Oh, we’re doing fine’. That’s enough for me... Just keep going until she says, ‘Stop’”.⁵⁵
283 (p103) Equally, professionals recognised the importance of developing trust in therapeutic
284 relationships and its potential to affect engagement.⁵⁶⁻⁵⁷ “As soon as we are able to foster a
285 relationship of trust, patients begin to work with us, almost for our sake at first, and
286 eventually realise that they can recover”.^{56(p221)}

287

288 For patients, in a position of vulnerability, being treated with dignity and being
289 acknowledged as an individual rather than “just another patient”^{62 (p19)} was fundamental to
290 feeling valued and was expressed through professionals ‘giving time’ and attention to
291 individuals.^{55,57,61-62} Patients felt valued when healthcare professionals exhibited attributes
292 of patience, tolerance, attentiveness, interest, kindness and warmth.^{48,61-62} Equally, nurses
293 felt valued when their efforts were acknowledged by patients.⁵⁷ Professionals valued
294 reciprocal behaviours in patients, specifically openness, enthusiasm, engagement and
295 realism^{48,55,57} and employed a number of strategies to promote affiliation and solidarity
296 through adapting their behaviour, giving time, displaying empathy, engaging in humour and
297 giving encouragement.^{55-58,61,63-64} For professionals who had unsuccessfully attempted to

298 develop a relationship with patients, despite employing facilitative strategies, withdrawal
299 was perceived to be their final option.⁵⁵

300

301 Staff and patients ascribed meaning to each others' personal qualities and behaviour, with
302 staff identifying "favourite patients",^{55 (p105)} which had the potential to either solidify or
303 impede therapeutic relationships. Professionals conceived that the presence of
304 communication difficulties hindered dyadic interaction and inhibited the development of an
305 affective bond.^{48,55,57} However, some professionals perceived that they were able to
306 strengthen the therapeutic bond through spending time with patients with aphasia,
307 bypassing verbal barriers.⁵⁷

308

309 Contrary to a dominant trend in which patients reported positive experiences of stroke
310 rehabilitation, were reports of inhuman treatment, carelessness, disregarded concerns and
311 episodes of insensitivity, which threatened to erode trust and debase patients' dignity.⁵⁵⁻
312 ^{56,61-62} "You really don't know a thing, which proves the point that you don't have any dignity
313 at all, because 'we (the hospital staff) do as we like.' And that's that".^{61 (p829)}

314

315

316 ***Asymmetrical Contributions***

317

318

319 Across seven papers, collaborative goal setting was rarely adopted in stroke
320 rehabilitation^{48,50,53,54,56-58} and when patient-therapist dyads engaged collectively in goal
321 setting, the process was largely therapist led, with the therapist generating the goals for
322 intervention.^{53,57-58} Both interviews with patients and professionals and observational data,
323 suggested that asymmetrical contributions in goal setting were produced collaboratively.

324

325 *Dyadic influence: Agents of asymmetry*

326

327 Patients' attitudes towards participation were diverse. For some patients, the desire for
328 decisional control was important, whereas for others, the concept of collaboration was
329 either unimportant or alien and there was an expectation that the healthcare professional
330 would adopt an 'expert' role, assuming decision making responsibility, whilst the patient
331 assumed a role of the acquiescent recipient.^{48,61-62} This desire for low decisional control has
332 been ascribed by professionals to both temporality and the process of "coming to
333 terms"^{52(p151)} with stroke. In contrast, many patients wanted to be actively involved in goal
334 setting and become joint partners in the planning and process of goal setting.^{48,52,63} For
335 some patients, lack of decisional control was associated with "a loss of self- determination".
336 ^{61(p830)} "Cause they boss you around, cause you're sick, aren't you? And then you've got no
337 say. I've noticed that now" .^{61(p829)} Interviews with stroke patients indicated that younger
338 patients appeared to advocate more active involvement in decision making.⁴⁸

339

340 Similarly, professionals perceived that patients wished them to assume an ‘expert’ role and
341 direct goal setting.^{48,52-53,57} For a small number of professionals, the family’s decision
342 superseded patient autonomy which was reportedly concordant with patient
343 expectations.⁵⁶ In contrast, therapists across four other studies emphasised the importance
344 of establishing collaboratively agreed goals^{48,50,60,63} and identifying and incorporating patient
345 specific goals.^{55,60,63} However, patient interviews and observation have revealed that this
346 process was not always evident in practice.^{53,63}

347

348 Professionals perceived that a range of factors intrinsic to the individual served to inhibit
349 participation namely: the patient’s passivity, psychological adjustment and coping
350 strategies, previous experience with illness, and the patient’s age and personal
351 characteristics.^{48,50,52,54-55,59,62} Passivity featured across a number of studies,^{48,54,55,59,62} which
352 professionals attributed to variables of age, time post-stroke, communication impairment
353 and cultural diversity.^{48,54,62} Aetiological factors such as depression, reduced insight,
354 physical, cognitive and communication difficulties were perceived by professionals to play a
355 significant role in impeding collaborative goal setting.^{48,50,54,55,58}

356

357 The clinician’s level of experience was deemed by professionals to directly impact on the
358 nature of collaboration.^{48,52,63} Indeed, therapists wanted to involve patients^{50,60,63} but “did
359 not appear to know how to do it”.^{63 (p1203)} Physiotherapists perceived that they were on a
360 “journey”^{52 (p150)}, in which their skills evolved over time, developing from an “initial black

361 and white mechanistic view...to a greater focus on patient empowerment”^{52 (p151)} However,
362 some physiotherapists felt that skills such as rapport could not be learnt.⁵²

363

364

365 ***The process of collaboration: Finding the middle ground***

366

367

368 The process of collaboration was closely aligned to the theme of ‘connectedness’, because a
369 solid therapeutic relationship was conceived by professionals to provide the context for
370 collaborative goal setting and, therefore, the premise for establishing congruence.^{48,49,52,54,60}

371 Therapists attributed episodes of incongruence to a weak therapeutic relationship and
372 misaligned goals.^{50,54} Interviews with professionals revealed that goal setting was led by
373 their hospital policy requirements which demanded realistically achievable goals to be set
374 within a short time frame and focused on return of function.^{48,50-51,54} Consequently,

375 therapists’ goals were framed largely at the impairment and activity level of the
376 International Classification of Functioning (ICF) (World Health Organisation) and were not
377 always analogous to patients’ perceived goals, particularly if they were representative of the
378 participation level of the ICF.^{48,50,54,63} When goals misaligned, interactional difficulties
379 ensued which had the potential to be time consuming and unpredictable,^{50-51,53} demanding
380 “significant effort”.^{52(p153)}

381

382 Professionals attributed interactional dilemmas to what they believed were patients'
383 unrealistic expectations and the prioritisation of "privileged" goals.^{51(p210) 48,50,52,53} In the
384 early stages, professional's perceived that patients were still 'coming to terms'^{52(p150)} with
385 their stroke and may not have been ready to accept their prognosis, preferring to place their
386 hope in recovery.⁴⁹ In contrast, patients' perceptions of recovery varied, from the realistic⁶²
387 to hopes which "were tinged with realism".^{49(p404)} Both professionals and patients conceived
388 hope as a fundamental driver for recovery.⁴⁸ Professionals believed that the act of balancing
389 realistic expectations and maintaining hope was dependent on developing a genuine
390 relationship and approaching patients sensitively, limiting psychological stress.⁴⁸⁻⁴⁹ Indeed,
391 for professionals, the process of establishing realistic goals was closely intertwined with the
392 process of acceptance and had to be carefully negotiated in order to preserve hope, integral
393 for recovery.

394

395 Both patients and professionals recognised the importance of information provision and
396 education, essential for setting goals, patient engagement, and engendering respect in the
397 therapeutic dyad.^{48,50,53,61-63} Yet patients perceived that the provision and accessibility of
398 meaningful information was often inadequate.⁶¹⁻⁶³ Professionals ascribed this inadequacy of
399 information provision to professional time constraints, the patient's ability to communicate
400 and the professional's perception that the patient wanted them to assume control.⁴⁸

401

402 There was considerable variability in professionals' reported responses to episodes of
403 incongruence during the process of goal setting, which encompassed: "navigating"⁵¹

404 patients towards more amenable goals; limiting or avoiding talk of ‘unsuitable’ goals; and
405 negotiating with patients to establish concordant goals.^{51,53,55} Negotiation was perceived by
406 clinicians to be reflective of a genuine attempt to work collaboratively with patients and was
407 aligned to many staff-patient relationships described as close or “participatory”.^{55 (p104)} For
408 professionals, negotiation was deemed to be successfully employed to reach
409 concordance^{49,55} and reflected an attempt by both parties to compromise, recognising the
410 reciprocal benefit of maintaining a purposive alliance.⁴⁸ Professionals’ attempts at
411 redirecting patients to more ‘suitable’ goals, which aligned with their clinical priorities,⁵¹
412 served to perpetuate the asymmetrical nature of the partnership, emphasising “established
413 clinical roles and perceived resource capacity”.^{51(p211)} Although professionals recognised that
414 limited time resources^{48,53} impacted on collaborative goal setting, a number of clinicians
415 also believed that, by limiting or avoiding conflict, they would preserve the established
416 patient-professional bond⁴⁹ and safeguard patients from psychological stress.^{49,53,56}

417

418 All stakeholders perceived that the process of reaching concordance was not restricted to
419 the dyadic relationship but extended to the patients’ families.^{48,54,56,60,63} Professionals
420 valued familial collaboration and recognised the potential benefit in facilitating realistic goal
421 setting, particularly when linguistic and cognitive barriers constrained patient
422 involvement.^{48,54-55} Family involvement varied on a continuum from full active participation
423 to non-involvement.^{48,56,63} A few speech and language therapists believed that, for some
424 patients, family involvement could be detrimental, particularly if a relative dominated a
425 therapy session.⁴⁸

426

427 *Motivation: A by-product of collaboration?*

428

429 Therapists perceived that employing a patient-centred framework in which patients were
430 fully involved in goal setting had the potential to motivate patients.⁵⁰ Equally, incongruent
431 goals were perceived by patients to be demotivating.⁴⁸ “I want to read, yes, yes but there I
432 read, but they take those away and say do this (gestures to writing). I threw it away. I threw
433 it away, because it was so silly”.^{48(p290)} Motivation was closely aligned to hope and therapists
434 perceived that giving a sense of hope would promote motivation.⁴⁸⁻⁴⁹ A small number of
435 professionals and patients conceived that motivation was the result of developing an
436 effective therapeutic relationship and of professionals engaging in productive patient
437 interaction.⁵⁶ Therapists’ experience of developing ineffectual relationships suggested that
438 this can have an adverse effect on therapeutic adherence.⁴⁸ Thus, the strength of the TA,
439 rather than collaboration alone, may have the potential to influence patient motivation.

440

441

442 ***System drivers***

443

444

445 Organisational and financial drivers had a tangible impact on the nature of the relationship
446 and collaboration, achieving the paradoxical effect of impeding a ‘patient-centred’ agenda,
447 central to many healthcare policies. All stakeholders recognised that service constraints had

448 a direct effect on time resources which impacted on frequency and length of
449 rehabilitation^{48,61} and, for professionals specifically, affected getting to know the patient,
450 essential for forming a relationship and working collaboratively.^{48,55,57} Time constraints
451 hindered nurses' ability to be available and responsive^{55,57} and were perceived by patients
452 to differentially affect self-esteem, damaging not only nurses' relationships with patients
453 but also relationships between patients, vying for attention.⁵⁵ Similarly, nurses expressed
454 dissatisfaction if they were unable to be responsive to patients.⁵⁷

455

456 Lack of collaboration was not only a consequence of reduced time capacity but an indirect
457 consequence of fiscal and organisational drivers which directed clinicians to prioritise
458 'privileged' short term goals to meet discharge targets.^{48,51,54} Fiscal policy dictated the length
459 of therapeutic input and led to early discharge, which was perceived by patients and
460 professionals to threaten hope^{48,60,63} and had the potential to induce dyadic conflict.⁶⁰

461

462 The public and time-centric arena of the hospital context was a significant factor in causing
463 doctors and nurses "to operate closer to the hierarchical than the participative end of the
464 spectrum" in forming relationships with patients.^{55(p108)} The lack of privacy afforded in
465 hospital was perceived by professionals to further inhibit the formation of close bonds,^{48,55}
466 particularly for those professionals whose relationships were limited to the ward
467 environment.⁵⁵

468

469

470 ***Line-of-argument***

471

472

473 Underlying the process of developing and maintaining a positive TA was an inherent power
474 differential between the patient and professional in stroke rehabilitation, in which the
475 power balance was disproportionately weighted towards professionals. Despite
476 professionals' efforts to redress the balance, disequilibrium remained dominant (Figure 2).
477 The synthesis indicated that triadic influences (system drivers, professionals and patients)
478 contributed to this imbalance of power.

479

480 Maintaining homeostasis within the professional-patient dyad was dependent on: (1)
481 establishing connectedness in order to build equality and openness, as a premise for both
482 goal setting and targeted therapeutic interventions, (2) inclusion in goal setting in line with
483 patient choice to promote autonomy, and, (3) negotiating amenable goals, not only focusing
484 on patient choice but meeting the professionals requirement to set goals which they
485 believed were achievable, in order to establish concordance. Disequilibrium threatened
486 when the above conditions were not met.

487

488

489 ***Discussion:***

490 The finding that the TA was characterised by an imbalance of power was perhaps not
491 unsurprising, since its presence in the formation of the TA is inescapable,⁶⁵ however it is the
492 inadvertent perpetuation of this imbalance throughout the process of alliance formation
493 and development, by both dyadic agents which was perhaps unexpected and needs to be
494 redressed. The synthesis findings mirror those of a recent systematic review exploring
495 stroke survivors experience of rehabilitation, in which empowerment was perceived to be
496 threatened by inadequate information provision, lack of collaboration and disrespect.⁶⁶

497

498 The benefit of maintaining a positive TA was perceived to be great, both in terms of
499 engagement and motivation. A number of studies have suggested that the development of
500 an effective therapeutic relationship may be fundamental in activating patient
501 engagement²⁰ and motivation,⁶⁷ highlighting the potential of TA as a mechanism for change.

502

503 The question remains as to whether Bordin's constructs of TA⁵ are indeed transferable to
504 the field of stroke rehabilitation. The theme of 'connectedness', which is closely correlated
505 to Bordin's construct of '*bond*' (3), was characterised by a feeling of wanting to be liked,
506 cared for and trusted, resonating with Bordin's⁶ suggestion that these attributes were
507 common across all modalities. The synthesis did not, however, consider the importance of
508 other components embedded in psychotherapy,^{68,69} such as understanding and
509 unconditionality relevant to the '*bond*' construction, which is not to suggest that these
510 aspects were not relevant but rather that the questions have yet to be asked.

511

512 The themes of ‘asymmetrical contributions’ and ‘finding the middle ground’ are closely
513 aligned to Bordin’s key construct of ‘goals’ and establishing congruence in relation to the
514 purpose of therapy (1).⁵ This process was marked by interactional dilemmas in stroke
515 rehabilitation. Similarly, alliance development in the field of psychotherapy is characterised
516 “by much negotiation”.^{70(p63)} Where this process departed from the psychotherapeutic
517 experience, is in its reinforcement of therapist-identified goals, emphasising the perceived
518 dominance of ‘privileged’ goals in stroke rehabilitation, shaped by the current service
519 delivery model. In contrast to psychotherapy, one of the major barriers to obtaining
520 concordance related to the aetiological challenges specific to stroke rehabilitation (linguistic
521 and cognitive deficits), resonating with findings from earlier systematic reviews.^{24,71}

522

523 The current synthesis failed to delineate a third component of the construct of TA which
524 aligned with Bordin’s component of ‘task’ (2). This may reflect an absence of articles
525 addressing this aspect or may be indicative of a lack of applicability, highlighting a need for
526 further research to ameliorate our understanding of this construct in stroke rehabilitation.

527

528

529 *Study limitations:*

530

531

532 The dearth of papers available focusing on TA as a primary research area has meant that key
533 aspects of the TA relevant to stroke rehabilitation are likely to have been neglected. Indeed,
534 findings suggest that core components of the therapeutic relationship relevant to physical
535 rehabilitation^{10,72} were absent from psychotherapeutic constructs of TA, highlighting the
536 need to explicate and conceptualise the process of TA within stroke rehabilitation.

537

538 It is likely, however, that the diversity of the professions, the setting and the conceptual
539 focus of the selected studies may have led to the development of a synthesis which
540 overestimated some aspects of TA in stroke rehabilitation (asymmetrical contributions in
541 goal setting, inpatient environment) and underestimated other aspects (such as
542 communication⁷²), undermining the conceptual 'richness' of the synthesis. A number of key
543 constructs were heavily influenced by professional perceptions, such as 'balancing hope
544 with expectations', in which professionals assumed that patients would have to accept their
545 residual deficits in order to progress, when in fact stroke survivors reported that testing
546 boundaries and assuming autonomy led to more realistic expectations, negating the
547 requirement to set 'realistic' goals,^{73,74} thereby, highlighting the need for further exploration
548 of this construct from the perspective of both stroke survivors and providers.

549

550 The papers were selected on the basis of their conceptual focus rather than their
551 representativeness of a sample population. Therefore, the synthesis was grounded within a
552 range of epistemological frameworks and methodologies. The inclusion of papers deemed
553 methodologically 'weak' may have affected the findings. Removal of methodologically

554 'flawed' papers^{55,59} however did not differentially affect theme and construct development.
555 Equally, the findings from methodologically weaker papers did not contradict other papers
556 and it became clear throughout the process that those studies with conceptually 'rich' data
557 made a greater contribution to the synthesis than those representing strong methodological
558 findings.

559

560

561 ***Conclusions:***

562

563

564 This synthesis offers new insights into professionals' and patients' experiences and
565 perceptions of developing TA in stroke rehabilitation, highlighting the importance of
566 developing 'connectedness' as a context for collaboration and managing potential tensions.

567

568 There are a number of components of Bordin's construct which may be applicable to stroke
569 rehabilitation, however, our conceptual understandings are merely embryonic at this stage
570 and we currently lack a conceptual model on which to frame our understandings of this
571 concept in the field of stroke rehabilitation. Rather than answering questions about what
572 we know about TA in stroke rehabilitation, this review has highlighted what we do not
573 know.

574

Therapeutic alliances in stroke rehabilitation

575 Future research needs to; 1) develop a conceptualisation of TA in stroke rehabilitation,
576 which can then be used to inform the development of, 2) a robust measure of TA applicable
577 to stroke rehabilitation, in order to, 3) explore the relationship between TA and stroke
578 rehabilitation. Failure to address these issues may mean that patients fail to reach their full
579 potential.²²

580

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791 Figure Legends:

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793 Figure 1: Search strategy and exclusion process

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795 Figure 2: The power differential

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797 Table 1: Search terms

798

799 Table 2: Critical Appraisal Screening Programme (CASP) analysis

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801 Table 3: Noblit and Hare's seven stage ethnographic process

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803 Table 4: Abstracted findings from the process of reciprocal translation

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805 Table 5: Characteristics of synthesised studies

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808