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2 **A Qualitative study on Therapists' Use of Intrapersonal and Interpersonal Emotion**
3 **Regulation Strategies During Patient Interactions**
4

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30 **Abstract**

31 *Importance*

32 Although therapists' use of emotion regulation strategies may play an important role in
33 building therapeutic relationships, we know little about how therapists use intrapersonal and
34 interpersonal emotion regulation strategies during interactions with patients.

35 *Objective*

36 To understand how therapists use intrapersonal and interpersonal emotion regulation
37 strategies during their interactions with patients.

38 *Design*

39 This qualitative study consisted of two stages of data collection. In the first stage therapists
40 were interviewed regarding how they use emotion regulation strategies during their
41 therapeutic relationships. In the second stage, patient/therapist dyads were observed during
42 treatment sessions and then interviewed at the end of the therapeutic relationship.

43 *Setting*

44 In-patient and out-patient rehabilitation hospitals and clinics in United Kingdom.

45 *Participants*

46 In the first stage 13 occupational therapists and 9 physical therapists participated. In the
47 second stage 14 patient/therapist dyads participated.

48 *Outcome and Measures*

49 A semi-structured interview guide was used to ask therapists how they used emotion
50 regulation strategies during interactions with patients.

51 *Results*

52 Therapists use a wide range of interpersonal and intrapersonal emotion regulation strategies
53 that can be categorised in prominent emotion regulation strategy taxonomies. They used
54 these strategies proactively, in anticipation of emotional events and reactively, in response to

55 emotional events and their use helps to build and maintain the therapeutic relationship, to
56 protect themselves, to feel better, and to get their jobs done.

57 *Conclusions and Relevance*

58 The ability to regulate one's own emotions and others emotions is an essential part of
59 therapists' work role. Therapists use a wide range of emotion regulation strategies to benefit
60 themselves and their patients.

61 *What This Article Adds*

62 This is the first study to identify the specific intrapersonal and interpersonal emotion
63 regulation strategies used by occupational and physical therapists during patient/therapist
64 interactions. This study makes an important contribution to our understanding of therapists'
65 use of proactive and reactive emotion regulation strategies to build and maintain therapeutic
66 relationships.

67

68 **Introduction**

69 In allied health professions, the regulation of one's own emotions and the emotions of
70 others is an integral part of one's work role (Miller et al, 2008). Emotion regulation is the
71 goal-directed process of regulating the occurrence, magnitude, or duration of emotional
72 responses (Gross, Sheppes & Urry, 2011). Strategies used to regulate one's own emotional
73 responses are called intrapersonal emotion regulation. Strategies used to regulate other's
74 emotions are called interpersonal emotion regulation (Niven, Totterdell, & Holman, 2009).
75 Emotion regulation may be a particularly useful tool in building therapeutic relationships
76 with patients because a therapists' emotional displays and behaviours help patients
77 understand the professional's thoughts, feelings, and intentions (Van Kleef, 2008) and in this
78 way influence how they understand the quality of the relationship (Niven, Holman &
79 Totterdell, 2012; Methot, Melwani & Rothman, 2017).

80 The therapeutic relationship is the interpersonal relationship between the therapist and
81 patient (Peplau, 1997). The importance of building positive therapeutic relationships is
82 recognised throughout healthcare professions. Specifically, in the context of occupational
83 therapy, therapeutic success is associated with the quality of the therapeutic relationship
84 (Weiste, 2018). In physical therapy, researchers have found that therapeutic relationships
85 have a significant impact on measures of healthcare quality including clinical outcomes (Hall
86 et al, 2010), patients' adherence to therapist's recommendations (Moore et al, 2020) and
87 patient satisfaction (Beattie et al, 2002). A therapist's interpersonal behaviours, including
88 their use of emotion regulation, can be either a barrier or facilitator to building therapeutic
89 relationships (Morera-Balaguer et al, 2021). Although emotion regulation strategies may
90 play an important role in the therapeutic process and therapeutic relationships, we know little
91 about how therapists use interpersonal emotion regulation strategies during interactions with
92 patients. The aim of this study is therefore to deepen and extend our understanding of how

93 therapists use interpersonal and intrapersonal emotion regulation strategies during their
94 interactions with patients. This research was conducted as part of the first authors doctoral
95 studies.

96

97 **Emotion Regulation Strategies**

98 The most prevalent taxonomy of intrapersonal emotion regulation strategies is the process
99 model of emotion regulation (Gross, 1998). This model proposes five types of emotion
100 regulation strategies which are distinguished by the point in the emotion-generative process at
101 which they have their primary impact. Antecedent-focused emotion regulation strategies seek
102 to influence emotion before it is generated. Situation selection, situation modification,
103 attentional deployment, and cognitive change or reappraisal are all antecedent-focused
104 emotion regulation strategy families. Response focused emotion regulation strategies seek to
105 influence the emotion after it is generated. Response modulation is the only family of
106 intrapersonal emotion regulation strategies that falls into the response-focused category
107 (Gross, 1998).

108 According to the process model of emotion regulation (Gross, 1998), situation selection
109 are strategies used to ensure that one will be in a situation that promotes the desired emotions.
110 Situation modification are strategies used to change a situation for the purpose of promoting
111 desired emotions. Attentional deployment refers to focusing one's attention as a way to
112 influence one's emotions. Cognitive change refers to modifying how one thinks about a
113 situation for the purpose of promoting the desired emotions. Lastly, response modulation
114 refers to strategies used to directly influence the experiential, behavioural, or physiological
115 aspects of one's emotional response.

116 Using Gross's (1998) classification of intrapersonal emotion regulation strategies as a
117 template, Williams (2007) identified four types of interpersonal emotion regulation strategies;

118 altering the situation, altering attention, altering the cognitive meaning of a situation and
119 modulating the emotional response. Altering the situation involves changing or modifying
120 the situation for the purpose of influencing a target's emotions. Altering attention are
121 strategies used to influence a target's emotions by attempting to divert their attention.
122 Altering the cognitive meaning of a situation are strategies used to influence a targets
123 emotions by helping them think differently about an issue or situation. Modulating the
124 emotional response are strategies used to change how the target experiences or expresses
125 emotion (Williams, 2007).

126 Most research on intrapersonal emotion regulation in healthcare identify the broad
127 categories of intrapersonal emotion regulation strategies described by Gross (1998) that
128 healthcare professionals use rather than the specific strategies that they use (e.g., Mann &
129 Cowburn, 2005; Zammuner & Galli, 2005; Martinez-Inigo & Totterdell, 2016). There are,
130 however, some studies that identify the specific strategies that professionals use. For
131 example, healthcare professionals may use digging deep within oneself, identifying
132 communication barriers, and seeking support (Foster & Sayers, 2012). Smith and Kleinman
133 (1989) identified strategies that healthcare workers use to emotionally distance themselves in
134 order to deal with undesired emotions. For example, they found that healthcare workers at
135 times use derogatory humour to de-humanise their patients and focusing on medical aspects
136 to avoiding dealing with the psychosocial aspects of the patient. Another example is a study
137 by Hammonds and Cadge (2014) that found that healthcare professionals use intrapersonal
138 emotion regulation strategies such as getting social support from family, venting to
139 colleagues, calling in to work to check on patients and participating in distracting activities
140 (Hammonds & Cadge, 2014).

141 Research on interpersonal emotion regulation at work is sparse, particularly in healthcare
142 settings. This small subset of research has mostly focused on how the use of interpersonal

143 emotion regulation is associated with personal resources and affective experiences (eg.,
144 Martinez-Inigo, Mercado & Totterdell, 2015; Martinez-Inigo, Bermejo-Pablos, & Totterdell,
145 2018). However, there is research on healthcare professionals' responses to patients'
146 emotions which, although not specifically talking about emotion regulation, shines light on
147 the interpersonal emotion regulation strategies that healthcare professionals use. These
148 studies found that healthcare professionals may use strategies that fit into Williams' (2007)
149 categories of interpersonal emotion regulation including humour (Bolton, 2000) (an altering
150 the situation or altering attention strategy), acknowledging patient's emotions, (an altering the
151 emotional response strategy), providing information (an altering the situation or altering the
152 meaning strategy), and using empathetic responses (an altering the emotional response
153 strategy) (Finset, 2012; Mjaaland, Finset, Jensen & Gulbrandsen, 2011).

154 An important gap in this area of research is there are no studies on intrapersonal emotion
155 regulation in occupational therapy and only one in physical therapy by Foster and Sayers,
156 (2012). Also, there is a lack of studies on interpersonal emotion regulation in occupational or
157 physical therapy. Since the use emotion regulation strategies is context-dependent (Gross,
158 2015; Dixon-Gordon, Bernecker & Christensen, 2015) meaning different strategies may be
159 appropriate or inappropriate in different contextual situations, emotion regulation may be
160 used differently in different professional contexts. For this reason, it is important to
161 understand emotion regulation use in the specific context of occupational and physical
162 therapy. To address this knowledge gap, semi-structured interviews and unstructured,
163 nonparticipant observation were used to understand how therapists use emotion regulation
164 strategies during interactions with patients.

165

166 **Method**

167 *Study design and procedure*

168 This is an exploratory qualitative study using a constructivist epistemology, meaning that
169 the knowledge sought is perspectival (King & Brooks, 2017) and it was approved by the local
170 institutional review board. This research was conducted in two stages. In the first stage,
171 semi-structured interviews were used with patients and therapists. They were asked to tell
172 the story of a therapeutic relationship that they recently experienced or are currently
173 experiencing and in doing so, highlight emotional events that occurred, the resulting
174 emotions, and the emotion regulation strategies they used to address those emotions. The
175 first stage of data collection informed the second stage by developing a fine-tuned thematic
176 template and interview schedule, both of which were used in the second stage of data
177 collection. Also, since semi-structured interviews are comparatively less time consuming and
178 less intrusive than observation, one of the methods used in the second stage of data
179 collection, the first stage of data collection enabled the researchers to quickly access
180 participants perceptions and access a wide range of therapeutic specialties that may not be
181 appropriate for observational data collection due to ethical reasons.

182 In the second stage, unstructured, non-participant observation of patient/therapist dyads
183 during their interactions and semi-structured participant verification interviews, with each
184 dyadic partner individually at the end of the relationship were used to understand participants
185 perceptions of how they used emotion regulation strategies during interactions. Unstructured
186 observation was used because it is an ideal way to collect rich data on behaviour and
187 interpersonal interaction under the most natural circumstances (Mulhall, 2003; Kelley, 2002)
188 and it enables the researchers to get an insider's perspective (Salmon, 2015). The first author
189 observed each dyad during their treatment sessions, from the first session when they initially
190 met, to the last when the patient was discharged from therapy services. Therefore, the number
191 of treatment sessions observed varied for each dyad but ranged from 2 to 9 sessions. The
192 observation was done in person, with the observer seated in the clinic within hearing distance

193 to the dyad being observed, and an audio recorder was used to record dialog. The observer
194 was specifically looking to observe events that may cause emotion and how each dyadic
195 partner responded to those events. The data collected through observation was not analysed
196 and was only used to inform the participant verification interview schedule.

197 The purpose of the participant verification interview was to verify the researcher's
198 impressions of emotional events, resulting emotions, and emotion regulation strategies used
199 from her observations with the participant's point of view. The basis of the interviews at the
200 end of the therapeutic relationships was the interview schedule from the first stage of data
201 collection, however, for each dyad, the interview schedule was heavily augmented with
202 questions and prompts informed by the data collected through observation. In this way the
203 researcher could ask informed questions about interactional dynamics that occurred during
204 the therapeutic relationship and verify her understanding with the participants perceptions.
205 For example, if through observation of dyadic interactions, it appeared that a particular
206 emotion regulation strategy was used, the researcher would ask both dyadic partners about it
207 during the interview. The second stage built upon the first stage of data collection by using
208 methodological triangulation and including dyadic partners within therapeutic relationships.
209 Interviews and dialog during treatment sessions were audio recorded and transcribed. All data
210 collection was conducted by the first author, who is an occupational therapist with extensive
211 experience working within therapeutic relationships.

212 A number of strategies were used to ensure the trustworthiness of this research.
213 Methodological triangulation was used to cross verify the data collected. Pilot studies were
214 used to fine-tune the data collection process. Member checking was used to ensure that the
215 researcher's understanding was in line with the participants understanding. A reflective
216 journal was also used to record assumptions, actions, and rationale for those actions.

217 *Participants, recruitment, and contexts*

218 Participants were recruited using purposive sampling from three hospitals and one clinic in
219 the United Kingdom. In the first stage, nine physiotherapists and 13 occupational therapists
220 participated. There were 19 female therapists and three male therapists. The therapists
221 ranged in age from their 20's to their 60's. They worked in various specialty areas, such as
222 musculoskeletal, accident and emergency, and neurology. They ranged in years of
223 experience from 1 years to 35 years.

224 In the second stage 14 dyads were recruited for the main study. They were recruited from
225 hand therapy clinics in London. The therapists ranged in ages from their 20's to their 40's
226 and had between two and 20 years of experience. Three of the therapists were physical
227 therapists, and the remaining five were occupational therapists. Seven of the therapists were
228 female and one was male. The people who participated in the first stage of data collection
229 did not participate in the second stage of data collection and vice versa.

230 *Data Analysis*

231 The data were analysed using template analysis as described by King (2004a) and NVivo
232 10 software package. The data analysis began with the formulation of an initial template
233 which consisted of codes based on prior research. Relevant sections of each transcript were
234 coded using King's (2004 a & b) description of the process as a guide. As thematic codes
235 emerged from the data, the researcher incorporated them into the template. In this way, the
236 researcher adds, deletes, and fine-tunes the thematic codes on the template until it is an
237 accurate representation of the themes emanating from the data (King, 2004 a & b).

238 The data were collected and analysed simultaneously and data analysis was done in
239 repetitive cycles. Each cycle of data collection and analysis benefited from an increasingly
240 more fine-tuned template and the researchers' increasing level of familiarity with the data.
241 Since the data from both stages of data collection focused on understanding therapists' use of

242 emotion regulation strategies, they are reported together. Only the data relevant to therapists’
243 use of emotion regulation strategies is reported in this paper.

244

245 **Findings**

246 The findings show that therapists use a wide range of intrapersonal and interpersonal emotion
247 regulation strategies when interacting with patients. They use these strategies both
248 proactively, meaning in anticipation of emotion, and reactively, meaning in response to
249 emotion.

250 *How Therapists Use Intrapersonal Emotion Regulation in Response to Negative Emotion*

251 Therapists described using all categories of intrapersonal emotion regulation strategies
252 described in Gross’s (1998) process model of emotion regulation to regulate their own
253 negative emotions (see table 1). Situation selection is choosing to engage or not engage in
254 situations to promote desired emotions and avoid undesired emotions (Gross, 1998). The
255 main way that situation selection was used by therapists within therapeutic relationships was
256 by avoiding interacting with patients that provoke negative emotions. Therapists may do this
257 by exchanging patients with another therapist or therapy student.

258 “Me and the physios split them up, and she’ll go one day, and I’ll go another. And
259 we’ve got a student, so we send the student the other day. So, it spreads the load a
260 little bit.”

261 (S1P-1-T) Occupational Therapist, 6 years’ experience, age range – 20s

262 Situation modification strategies are used to change a situation to experience desired
263 emotions (Gross, 1998). Therapists used situation modification strategies to steer their
264 interactions in a way to avoid negative emotions. Often this involved efforts to prepare
265 oneself practically and emotionally. For example, one therapist explained how she prepared

266 herself prior to working with a patient to avoid feeling the anxiety and embarrassment
267 associated with appearing nervous or incompetent.

268 “... prepared myself before going in.... You know how you kind of psych yourself
269 up. You really think through what your treatment plan’s going to be, think through
270 what you’re going to say just in case the family comes and it’s the whole deep breath,
271 in you go.”

272 (1-8-T) Physiotherapist, 13 years’ experience, age range – 30s
273 In preparing for the session, she modified the situation from one where she could have been
274 ill-prepared, to one where she appears competent. In the quote the therapist mentions that she
275 “psyches” herself up. This can be understood as providing evidence that she is
276 simultaneously using cognitive reappraisal, strategies used to modify how one appraises a
277 situation in order to facilitate the desired emotions (Gross, 1998), to prepare for the treatment
278 session.

279 Other therapists also described using cognitive reappraisal to protect themselves, to
280 maintain their professionalism, to be able to get their job done, and to feel better. They
281 tended to use cognitive reappraisal to not take personal a patient’s or their family’s negative
282 behaviours towards them or to remind themselves of the limits of their remit. One therapist
283 described how she used cognitive reappraisal to cope with the despair she felt when one of
284 her patients died one week after he was discharged home by thinking about the positive
285 aspects of the situation.

286 “I felt... he’s gone to rest; the suffering has gone... he’s had good care... the best that
287 we could offer... and so that gives me that satisfaction.”

288 (1-14-T) Occupational Therapist, 35 years’ experience, age range – 60s
289 Therapists also used cognitive reappraisal to give themselves permission to feel negative
290 emotions albeit in a controlled way.

291 “...actually, sometimes unfortunately, like, you can only do what you can do. And so,
292 you have to sometimes, it sounds bad, but be at peace with that.”

293 (1-7-T) Physiotherapist, 3 years’ experience, age range – 20s

294 Attentional deployment strategies are those that attempt to direct or redirect one’s
295 attention to influence one’s own emotional experience (Gross, 1998). One of the primary
296 ways that therapists used attentional deployment is by ignoring negative emotional events,
297 such as patient’s display of anger or irritation directed towards them.

298 “I guess I just blocked it out after I knew that I couldn’t change the outcome...”

299 (1-13-T) Physiotherapist, 4 years’ experience, age range – 20s

300 Over time they may become acclimated to the common affective events that provoke
301 negative emotion and consequently these emotional events may decrease in their emotional
302 significance.

303 “Certain frustrations now bounce off my back because I can’t influence them...”

304 What’s the point in worrying about things I can’t influence? ...”

305 (S1P-1-T) Occupational Therapist, 6 years’ experience, age range – 20s

306 This statement can be understood as an example of a therapists using attentional deployment
307 and cognitive reappraisal at the same time. The therapist described the need to let frustrations
308 bounce off her back. This is an indication of the therapist using attentional deployment.

309 When the therapist questions the point of worrying about things she cannot influence, this is
310 an indication of her using cognitive reappraisal.

311 Response-focused strategies are efforts focused on influencing the experiential,

312 physiological, or behavioural, components of an emotional response (Gross, 1998).

313 Examples of therapists use of such strategies include hiding their frustration, holding back
314 tears, and taking a deep breath to try to manage anxiety.

315 “...it’s keeping that professional face and then going away to the bathroom and
316 having a good cry. So yes, the emotions do come out but hopefully not in front of a
317 patient.”

318 (1-17-T) Physical Therapist, 13 years’ experience, age range - 20

319 “So, if I’d got really angry with them, that wouldn’t have achieved anything. So, I
320 was internally frustrated. But I didn’t let that out.”

321 (1-1-T) Occupational Therapist, 7 years’ experience, age range – 30s

322 Hochschild (1983) called these strategies surface acting. Therapists used these strategies to
323 maintain one’s professional composure and to deescalate tense situations. In addition to
324 using intrapersonal emotion regulation strategies before and during the encounter, therapists
325 also use these strategies after the encounter. For example, after the encounter, therapists may
326 use strategies like venting, “switching off”, crying, seeking support, eating, and exercising to
327 address residual emotions.

328 “I said to my manager that I went over backwards to help this family and this is what I
329 get you know.”

330 (1-14-T) Occupational Therapist, age range – 60s

331 “...If I’m feeling a bit rotten then I’ll have a big bag of crisps. And that works. And
332 that does work at work as well. It’s been a bad day – shall we go out for lunch? It’s
333 quite a common thing in our office.”

334 (S1P-1-T) Occupational Therapist, 6 years’ experience, age range – 20s

335 “... I exercise because of work, I think, more than anything else and probably at times
336 have a glass of wine.

337 (S1P-6-T) Occupational Therapist, 3 years’ experience, age range – 30s

338 Situation selection and modification are proactive (or antecedent-focused) intrapersonal
339 emotion regulation strategies because they are enacted prior to the experience of emotion.

340 Attentional deployment, cognitive reappraisal, and response modulation are reactive (or
341 response-focused) intrapersonal emotion regulation strategies because they are used after the
342 experience of emotion.

343 *How Therapists Use Interpersonal Emotion Regulation Strategies*

344 Therapists reported that regulating their patients' emotions is an essential part of their job.
345 In fact, at times regulating their patients' emotions took priority over therapeutic
346 interventions because the patients' emotions influenced their ability to take part in therapy.

347 "…Even though I was going to see her as a physio, we didn't necessarily do any
348 physio sessions. It was more talk and let her deal with her emotions. And then next
349 time we come and do the physio session."

350 (1-8-T) Physical Therapist, 13 years' experience, age range – 30s

351 Therapists described using a wide range of strategies that can be categorised according to
352 Williams' (2007) interpersonal emotion management framework (see table 2). Altering the
353 situation involves modifying or changing the situation to influence the emotional impact on
354 the target (Williams, 2007). Therapists used this type of strategy proactively, that is in
355 anticipation of emotion rather than in response to emotion, to avoid negative emotions. For
356 example, therapists stated that at times they tell their patients they may not achieve full
357 recovery as a tactic to manage the patient's expectations and avoid patients having negative
358 emotions if they subsequently do not fully recover.

359 "I think it is important to manage patients' expectations so they can be more realistic
360 regarding what they think they will get out of therapy."

361 (1-1-T) Occupational Therapist, 7 years' experience, age range - 30s

362 One therapist discussed how up front she tells her patients that certain decisions are not up
363 to her, even though that is not true, as a way to avoid patient anger if she did not make the
364 decision that the patient would prefer.

365 “It just makes it easier for me, they (patients) because I don’t want to deal with that
366 (referring to patients’ anger).”

367 (1-3-T) Occupational Therapist, 2 years’ experience, age range - 20s

368

369 Altering attention are strategies used to divert the targets attention to influence their
370 emotions (Williams, 2007). Therapists used small talk to take patients minds off of from
371 taxing or painful therapy. They redirected their patient’s attention away from negative
372 emotion causing stimuli, such as their uncertain future functional status or a decline in the
373 patient’s status. One therapist explained that while she allows her patients to express their
374 worries, she tries to prevent them from ruminating on their worries by refocusing the patient
375 on the task at hand.

376 “If they’re (the patient) tearful, I listen. I’ll be respectful and understanding but then
377 I’ll move on. ‘That’s okay, that’s that, so how can me move on?’”

378 (S1P-8-T) Occupational Therapist, 6 years’ experience, age range – 40s

379 Similarly, another therapist explained how she used the therapy as an attention altering
380 strategy.

381 “I just reassured him and said these things happen. And try not to focus on it and be
382 too hard on yourself because lots of people have been in the same situation. And those
383 sorts of things. So, and then just focusing on the getting him up and doing more active
384 things to take his mind off it and feel like he is achieving.”

385 (1-9-T) Physical Therapist, 8 years’ experience, age range – 30s

386 This is an example of a therapist using two types of interpersonal emotion regulation
387 strategies at the same time. When the therapists told the patient that many people have been
388 in the same situation, the therapist was also trying to help the patient to understand that he is
389 not alone. This strategy can be categorised as altering the cognitive meaning of a situation,

390 which is helping the target think about an issue differently to change the emotional
391 consequences. Altering the cognitive meaning of a situation strategies are often used when
392 patients are feeling sad about their lack of functional independence as a way to help the
393 patients to see “the bright side of things”. Another example of therapists’ use of this strategy
394 is a therapist encouraging patients to think about incremental improvements instead of how
395 far they are from their rehabilitation goals.

396 Modulating the emotional response involves actions used to change the targets current
397 experience or expression of emotion (Williams, 2007). In general, therapists believed that
398 patients had the right to feel negative emotions. For this reason, they did not try to encourage
399 patients to suppress negative emotions unless the emotions were particularly intense and
400 directed at the therapist. One therapist described how she attempted to regulate her patient’s
401 emotional expressions by setting and enforcing boundaries on which emotional expressions
402 are appropriate and which are not appropriate. Patients’ emotional expressions that fall
403 outside of those boundaries drew undesirable consequences.

404 “... I think a large part of it was building boundaries and then letting him (the patient)
405 know where the boundaries lie in terms of what he could and couldn’t do (talking
406 about the patient’s emotional expression) ... So, you’re saying, I’m not going to accept
407 it. If you’re going to shout, then I’ll come back when you’ve calmed down.”

408 (1-9-T) Physical Therapist, 8 years’ experience, age range – 30s

409 Altering the situation is a proactive interpersonal emotion regulation strategy in that it is
410 enacted in anticipation of other’s emotion. Altering attention, altering meaning, and
411 modulating the emotional response are reactive interpersonal emotion regulation strategies in
412 that they are used in response to other’s emotion.

413

414 **Discussion**

415 This is the first study to identify the specific intrapersonal and interpersonal emotion
416 regulation strategies used by occupational and physical therapists in response to negative
417 emotions stemming from emotional events that occur during patient/therapist interactions.
418 Similar to previous studies, this study found that therapists may use more than one emotion
419 regulation strategy at once (e.g., Aldao & Nolen-Hoeksema, 2013). Also, like other studies,
420 this study found that the use of intrapersonal emotion regulation may start before the
421 patient/therapist interactions and continue long after the precipitating emotional event to
422 regulate residual emotions (e.g., Wiese, Heidemeier, Burk & Freund, 2017).

423 This study makes an important contribution to our understanding of therapists, proactive
424 and reactive use emotion regulation strategies. Proactive emotion regulation refers to
425 strategies used to address expected emotions. Reactive emotion regulation refers to strategies
426 used to address experienced emotions. This distinction is important because research has
427 demonstrated that proactive strategies tend to be more effective than reactive strategies
428 (Webb, Miles, Sheeran, P. (2012). While previous studies have asserted that people use
429 intrapersonal emotion regulation strategies proactively and reactively (e.g., Gross, 1998;
430 Hayward & Tuckey, 2011), research on more proactive intrapersonal emotion regulation
431 strategies (e.g., situation modification and situation selection) have been studied less often
432 than more reactive intrapersonal emotion regulation strategies (e.g., attentional deployment
433 cognitive change, and response modulation) (Webb, Miles, & Sheeran, 2012). In addition,
434 studies on interpersonal emotion regulation research, do not tend to draw a distinction
435 between strategies used proactively and reactively (e.g., Tamminen & Crocker, 2013; Niven,
436 Totterdell & Holman, 2009). Therefore, this is one of the first studies to demonstrate the
437 proactive use of interpersonal emotion regulation.

438 The lack of focus on proactive use of interpersonal and intrapersonal emotion regulation
439 strategies is surprising given the fact that expected emotions have a direct impact on self-

440 regulatory behaviour, whereas experienced emotions have an indirect impact on self-
441 regulatory behaviour (Brown & McConnell, 2011; Baumeister, Vohs, DeWall & Zhang,
442 2007). In other words, expected emotions may explain and guide emotion regulation
443 behaviour more than experienced emotion. To fully understand emotion regulation
444 behaviour, more research is needed on proactive interpersonal and intrapersonal emotion
445 regulation.

446

447 **Implications for Occupational Therapy Practice**

448 Therapists use emotion regulation during their interactions with patients to build/maintain
449 the therapeutic relationship, protect their own emotional wellbeing, present themselves as
450 competent and professional, and to facilitate the therapeutic process. The multifaceted
451 application of this skill highlights the importance of therapists developing their emotion
452 regulation ability and has the following implications:

- 453 • Occupational and physical therapy employers and educational programs can provide
454 training to help therapists and students improve their ability to use interpersonal and
455 intrapersonal emotion regulation during their interactions with patients.
- 456 • Researchers can focus more on the emotional aspects of the therapeutic relationship to
457 better understand relationship development, maintenance, and breakdown.
- 458 • After emotional events, occupational and physical therapists can reflect upon their use
459 of emotion regulation strategies and associated outcomes to begin to understand how
460 they can best regulate emotions during interactions with patients.

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462 **Limitations**

463 As with all studies, there are limitations that must be acknowledged. While semi-
464 structured interviews are a useful way to access participants perceptions, the information

465 gained may be limited by participants' memory, understanding of the topic, or their
466 willingness to disclose information. The use of observation combined with participant
467 verification interviews in the second stage of data collection mitigated some of these
468 limitations since we could ask questions base on our observations that might compensate for
469 any deficits in their understanding or jog their memory. However, using observation
470 introduced additional limitations since participants may act differently when being observed.
471 Also, the very nature of some emotion regulation strategies makes them difficult to observe.
472 However, through observation we could develop an understanding of the context and
473 emotional events that enabled us to ask informed questions about emotion regulation during
474 the participant verification interviews. Finally, as with all qualitative research, the
475 generalisation of the results is limited to the specific context in which the research was
476 conducted.

477

478 **Conclusion**

479 This research focused on how occupational therapists and physical therapists use emotion
480 regulation strategies during interactions with patients. Therapists use a wide range of
481 intrapersonal and interpersonal emotion regulation strategies before, during, and after
482 interacting with patients, oftentimes using more than one strategy at once. This research
483 makes an important contribution to our understanding of emotion regulatory processes in
484 naturalistic rehabilitation contexts.

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647 **Table 1 - Specific intrapersonal emotion regulation strategies therapists used when**
648 **working with patient to address negative emotions**

Category	Specific Strategies
Situation Selection	<p>“... I didn’t feel I could work with her and so it’s (meaning treatment of the patient) gone to one of my colleagues.”</p> <p>(S1P-1-T) Occupational Therapist, 6 years’ experience, age range – 20s</p>
Situation Modification	<p>“That’s the prep before the visit. So, for me, I don’t like to go into a situation cold. I need to have looked at the background, I need to know what kind of illness I’m dealing with, what kind of family dynamics, so I’ve got some semblance of what I’m about to expect.”</p> <p>(S1P-8-T) Occupational Therapist, 6 years’ experience, age range – 40s</p>
Cognitive Reappraisal	<p>“I think a lot of the way that I dealt with the situation as it went through was more just not taking it personally. Just recognising that it wasn’t a personal attack on me.”</p> <p>(1-9-T) Physical Therapist, 8 years’ experience, age range – 30s</p>
Attentional Deployment	<p>“So, I just distracted myself I suppose and went from there.”</p> <p>(1-12-T) Physical Therapist, 3 years’ experience, age range – 30s</p>
Response Modulation	<p>“... because you don’t want to come across too sad in front of your patients. So yes, probably hide it I’d say, hide it.”</p> <p>(1-11-T) Physical Therapist, 11 years’ experience, age range – 30s</p>

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654 **Table 2 - Specific interpersonal emotion regulation strategies therapists used when**

655 **working with patient to address negative emotions**

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Category	Specific Strategies
Altering the Situation	<p>“Because she (the patient) obviously said this previous comment about us being a physio-terrorist or something. And I said, well it’s the terrorists, here we are! And then it becomes a bit, it doesn’t become an elephant in the room. It becomes more of a fun thing you can use and she kind of went with that and it was, it created a bit more positivity I think.”</p> <p>(1-11-T) Physical Therapist, 11 years’ experience, age range – 30s</p>
Altering the Cognitive Meaning	<p>“...we spoke to him and we said, look we don’t do these things... to embarrass you, it’s to help you realise as to where you are and to help you improve. So, we tried, we explained to him that it’s not about being embarrassed, it’s about just realising what you need to do to improve and where you’re at now and this is merely just a tool to help you improve. So that he didn’t feel humiliated.”</p> <p>(1-7-T) Physical Therapist, 3 years’ experience, age range – 20s</p>
Altering Attention	<p>“So, for example, if I feel that they’re... in like an angry mind-set, I try to joke with them, interact, be playful, talk about their family, talk about pictures. I won’t go straight to the assessment. I try to defuse the situation if I sense that.”</p> <p>(S1P-8-T) Occupational Therapist, 6 years’ experience, age range – 40s</p>
Modulating Emotional Response	<p>“I apologised for having that conversation in front of him if he didn’t feel happy with that conversation...”</p> <p>(1-8-T) Physical Therapist, 13 years’ experience, age range – 30s</p>

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