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# A qualitative exploration of the impact of COVID-19 on individuals with eating disorders in the UK

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1 A Qualitative Exploration of the Impact of COVID-19 on Individuals with Eating  
2 Disorders in the UK

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26 A Qualitative Exploration of the Impact of COVID-19 on Individuals with Eating  
27 Disorders in the UK

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30 Running Title: Impact of COVID-19 on people with eating disorders

31

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47

48 Abstract

49 COVID-19 may have substantial impact on the mental health at a population level,  
50 but also has the potential to significantly affect those with pre-existing mental health  
51 difficulties such as eating disorders. This qualitative study explores the impact of  
52 COVID-19 and associated public health measures on adults with eating disorders  
53 within the UK. We conducted 10 in depth interviews with adults (24-38 years) with a  
54 self-reported eating disorder during lockdown. Data were analysed using an  
55 inductive thematic analysis approach. We identified core themes related to social  
56 restrictions (social isolation, changes in accountability to others, and increased  
57 responsibility for self and others), functional restrictions (lack of routine and  
58 structure, a need to intentionally plan activity, a desire for secrecy particularly  
59 around food shopping) and restrictions in access to mental health services. Overall,  
60 the impact of the lockdown was experienced as a catalyst for either increased  
61 disordered eating behaviours or for a drive for recovery, depending on individual  
62 circumstances going into these restrictions. This study is the first in depth interview  
63 approach with adults with mixed eating disorder presentations in the UK. Findings  
64 have important implications for post lockdown intervention care and practice.

65 Keywords

66 Coronavirus, COVID-19, eating disorders, qualitative, thematic analysis, lockdown

67 1. Introduction

68 Coronavirus disease 2019 (COVID-19) is a global pandemic with far-reaching  
69 consequences for the physical and mental health of the population, leading to the  
70 World Health Organisation (WHO) declaring it a Public Health Emergency of  
71 International Concern in January 2020. The significant morbidity and rapid  
72 spread of the virus has led to the activation of various levels of public health  
73 measures, including “lockdown” in a high proportion of countries and physical  
74 distancing measures to prevent transmission, resulting in unprecedented impacts on  
75 social interactions, employment and the world economy. While the impact of the  
76 pandemic, and associated management, on mental health is not yet fully known, the  
77 potential for psychological distress is significant, as a result of the effects of social  
78 isolation, the economic fallout, grief and trauma for survivors (Reger, Stanley, &  
79 Joiner, 2020). Initial reports indicate increased levels of distress and anxiety among  
80 the general population (Wang et al., 2020) and specific concern has been noted for  
81 the potential impact on vulnerable populations, including those with pre-existing  
82 mental health difficulties (Holmes et al., 2020).

83

84 One particularly vulnerable group in this context may be those with eating  
85 disorders. The effects of the COVID-19 lockdown on individuals with an eating  
86 disorder could be broad ranging. While there may be potential for some protective  
87 consequences – e.g., reduced interpersonal triggers such as face-to-face body-based  
88 social comparisons (Cooper et al., 2020), increased opportunity of support from  
89 loved ones (Murphy, Calugi, Cooper, & Dalle Grave, 2020), or services embracing  
90 new technology in the delivery of psychological therapies (Murphy et al., 2020) – the  
91 overwhelming concern within the field is the potential for severe, adverse impacts  
92 (Weissman, Bauer, & Thomas, 2020). Initial small scale pilot data from Spain  
93 indicates worsening of the mental health of individuals with an eating disorder  
94 including a deterioration in eating disorder symptomology for one third of  
95 respondents (Fernández-Aranda et al., 2020) and in a large scale survey in Australia  
96 conducted within the first few weeks of the pandemic, a significant proportion of  
97 individuals who self-identified as having an eating disorder (n=180) reported an

98 exacerbation of restricting, binge eating, purging and exercise behaviours, relative to  
99 before COVID-19 (Phillipou et al., 2020).

100

101 Rodgers and colleagues (2020) outline three pathways that may either precipitate  
102 the development of disordered eating during the pandemic, or exacerbate existing  
103 difficulties. The first involves the impact of disruption and restrictions to  
104 daily activities as a result of public health interventions aimed at reducing  
105 transmission of COVID-19. This includes public restrictions on exercise, grocery  
106 shopping and concerns around scarcity of specific foods. These restrictions may  
107 be highly provoking for individuals with rigid and inflexible exercise or eating  
108 patterns, for example, by increasing the perceived need to stockpile food,  
109 and associated risk of binge episodes (Touyz, Lacey, & Hay, 2020). This pathway also  
110 highlights the potential for reduced social support, including restrictions in access to  
111 treatment as a consequence of limitations placed on traditional face-to-face  
112 treatment as a result of social distancing (Touyz et al., 2020) and restructuring  
113 and reorientation of health services to prioritise the management of COVID-19  
114 (Davis et al., 2020).

115

116 The second pathway relates to the effects of media (Rodgers et al., 2020). The  
117 authors propose that social distancing may lead to an increased use of social media  
118 and consequently enhanced exposure to harmful eating and appearance-related  
119 content (e.g. review by Holland & Tiggemann, 2016), and to stressful and traumatic  
120 world events which has been shown to negatively impact eating behaviours  
121 (Rodgers, Franko, Brunet, Herbert, & Bui, 2012). In addition, the increased necessity  
122 to use video-conferencing may be distressing for individuals with body avoidance.

123

124 The final pathway relates to fear of contagion, which may in turn lead to an increase  
125 in restrictive eating patterns and orthorexia-based cognitions, alongside increased  
126 levels of general stress and emotional distress, increasing the risk of disordered  
127 eating patterns (Rodgers et al., 2020). Other authors also highlight the potential  
128 financial impact of the pandemic, inclusive of reduced capacity for carers to support  
129 individuals with eating disorders, due to the need to increase working hours (Davis

130 et al., 2020) or the impact on food insecurity on financial ability to purchase “safe”  
131 or binge foods (Touyz et al., 2020; Weissman et al., 2020).

132

133 These theoretical pathways provide a useful framework to explore the potential  
134 impact of COVID-19 and its management on those with eating disorders. Given the  
135 rapidly changing environment, to date these mechanisms and pathways are largely  
136 hypothesised, with relatively little literature based on those with lived experience of  
137 an eating disorder. There are increasing calls for researchers to understand the  
138 psychological, social and neuro-scientific effects of the COVID-19 pandemic on  
139 mental health in collaboration with those with lived experience (Holmes et al.,  
140 2020). In this study we therefore aim to contribute to this growing body of work by  
141 exploring the experience of adults affected by eating disorders during the COVID-19  
142 pandemic in the UK using in depth interviews.

143

## 144 2. Methods

145 This study is reported in line with the COREQ guidance (Consolidated criteria  
146 for REporting Qualitative research) (Tong, Sainsbury, & Craig, 2007). Ethical approval  
147 was provided by the University of Edinburgh (Ref: STAFF181, 05/06/20).

148

### 149 2.1 Participants and Sampling

150 Purposive sampling was used to recruit adults living in the UK who self-identified  
151 as experiencing an eating disorder. Due to international differences in how  
152 governments approached the pandemic, our study only included UK residents.  
153 Advertisements for the study were posted on social media, mainly Twitter and  
154 Facebook. All advertisements provided a study link to a participant information  
155 sheet, to inform potential participants about the aim of the study, to verify eligibility  
156 criteria and to obtain informed consent to be contacted. Participants were asked  
157 to provide an email address to be contacted to schedule a one-time interview  
158 alongside brief demographic information.

159

160 In total, 44 individuals noted an interest in the study of whom 15 consented to take  
161 part, met the eligibility criteria and provided a valid email address to be contacted.

162 Of these, two opted out of the study and three did not respond to email  
163 communication. Therefore, in-depth interviews were conducted with ten adults,  
164 which was the minimum sample size striven for to enable data saturation.  
165 Interviewers had no prior relationship to interviewees, except for one participant  
166 who knew the interviewers from a previous eating disorder awareness event. Nine  
167 participants identified as female; one identified as non-binary. The mean age of  
168 participants was 29.6 years, ranging from 24 to 38 years, and all participants  
169 identified as White. Five participants lived in England, five in Scotland. Five  
170 participants lived alone at the time of the interview, two participants lived with  
171 family, one with a roommate, one with a partner, and one with a partner and family.  
172 All participants identified with disordered eating behaviours for more than two  
173 years. Six participants mainly identified with Anorexia Nervosa, two with Eating  
174 Disorders Not Otherwise Specified and one with Bulimia Nervosa.

175

## 176 2.2 Data Collection

177 Participants were contacted via email to arrange a one-on-one Skype interview with  
178 one of two female interviewers (SMB (MSc) and MCO (MSc), both PhD students in  
179 the field of eating disorders at the time of the interviews). Skype interviews were  
180 audio-recorded and transcribed verbatim by three researchers (SMB, MCO and IP).  
181 No field notes were taken during the interviews. The purpose of the study was fully  
182 disclosed to all participants prior to the study and interviewees had the opportunity  
183 to enquire about the researchers' motivations and interests in this research topic  
184 subsequent to the interview. A semi-structured interview schedule was used, which  
185 was provided to participants beforehand if they requested it to reduce the likelihood  
186 of being triggered by any of the questions. The schedule was pilot tested by each  
187 interviewer and focused on the general impact of COVID-19 and resulting lockdown  
188 measures, the specific impact on eating behaviours, food purchasing and exercise  
189 behaviours. In addition, participants were asked about how the media had impacted  
190 their mental well-being during lockdown and how their support systems were  
191 impacted by the restrictions. In the UK, "lockdown" was enforced on March 26th,  
192 2020 where all UK residents were asked to stay at home unless purchasing basic  
193 necessities, for medical need, essential key worker travel to work or one form of



194 exercise a day. Restrictions on outdoor activities (e.g., exercise) started to ease in  
195 mid-May 2020, and non-essential businesses remained closed until mid-end June  
196 (specific dates vary across the UK). Interviews were conducted from 14<sup>th</sup> May to 4<sup>th</sup>  
197 June 2020 and lasted between 45 and 120 minutes. All participants were debriefed  
198 after completion of the interview and provided with external support resources.  
199 Transcripts were not returned to participants for comments or corrections.

200

### 201 2.3 Theoretical Position and Analysis

202 This study was informed by Houston's (2001) illustration of critical realism, which  
203 recognises human subjectivity, while acknowledging that personal meaning is  
204 shaped by social structures. In the present context, the COVID-19 pandemic and  
205 resulting lockdown measures can be seen as structures and powers that actuate  
206 specific psychological mechanisms. These mechanisms in turn cause so-called  
207 tendencies (e.g. behaviours, thoughts, feelings). Our main analytical goal was to  
208 understand and explain these tendencies, considering underlying psychological  
209 mechanisms and structures (Houston, 2001).

210

211 Positioning us as researchers within the framework of critical realism involves  
212 questioning our own assumptions, to better understand how those participating in  
213 our study interpret their own actions, thoughts and feelings (e.g. Manicas, 2009).  
214 Firstly, all researchers involved in this project experienced the lockdown measures in  
215 the UK first-hand which may have had an influence on how we expected participants  
216 to feel during this time. All authors are mental health researchers in the field of  
217 eating disorders, which constitutes an 'insider conflict' (Aguinis & Henle, 2002;  
218 Holian & Coghlan, 2013). One of the authors has lived experience with disordered  
219 eating behaviours. Therefore, we must acknowledge the impact of assumed  
220 knowledge, use of vernacular and assumed shared beliefs on our research.

221

222 All transcripts were coded line-by-line using NVivo (QSR International, Melbourne,  
223 Australia) and a thematic analysis was conducted in accordance with the steps  
224 outlined by Braun and Clarke (2006), using an inductive approach. Three researchers  
225 (SMB, MCO, IP) coded four transcripts each to identify preliminary themes, while

226 allowing for partial cross-validation between coders. During two meetings, the  
227 researchers discussed identified themes in the context of critical realism.  
228 Subsequently, preliminary themes were grouped and, if necessary, adapted. This  
229 process was followed by a second coding phase, which focused on the identification  
230 of common underlying structures, psychological mechanisms and resulting  
231 tendencies. Prevalent “patterned responses” (Braun & Clarke, 2006, p. 10) were  
232 identified to investigate meaningful structures across all data sets. Initial codes  
233 were reviewed among the coders and three overarching themes were determined as  
234 coherently representing the complexity of the data. Eventually, all coders were  
235 familiar with all transcripts and two further meetings were used to finalise the  
236 thematic analysis by clearly defining all themes and subthemes. Participants did not  
237 provide feedback on the findings.

238

### 239 3. Results

240 Across all interviews, the impact of the lockdown could be described as a catalyst for  
241 either disordered eating behaviours or the effort to recover. Participants who were  
242 managing better during lockdown attributed their coping skills to comparatively  
243 better personal circumstances at the onset of lockdown and expressed concern  
244 about the possibility of being in lockdown during a severe phase of disordered  
245 eating.

246

247 Our study identified three main themes of underlying lockdown structures: social  
248 restrictions (changes in how people were socialising), functional restrictions  
249 (changes in daily routines around work, shopping etc.) and restrictions in access to  
250 professional support.

251

#### 252 3.1 Social Restrictions

253 Social distancing measures were introduced during lockdown to contain the spread  
254 of the virus. Restrictions in social interactions were therefore the most decisive  
255 overarching structure influencing participants’ mental well-being. Under this theme  
256 we identified tendencies related to participants experiencing social isolation,  
257 changes in accountability to others meaning increases or decreases in disordered

258 eating behaviours, and participants needing to take on more responsibility for  
259 themselves and others.

260

### 261 3.1.1 Social Isolation

262 The COVID-19 public health restrictions had a significant impact on most  
263 participants' social interactions, especially for those living alone. Loneliness was a  
264 prevalent theme in all interviews as illustrated by participant 2696:

265 "Times when I would normally kind of be doing something potentially social or  
266 something like that over the weekend...Obviously with more free time, I might  
267 have gone back to see my parents--that [...] feeling, of like, existential loneliness  
268 felt incredibly desperate and really quite painful. But it was...It came in bursts to  
269 begin with, and I think as lockdown has gone on, it's that feeling of real painful  
270 loneliness." (R2696)

271

272 Being socially isolated while struggling with an eating disorder was linked with the  
273 tendency to become even more focused on food and disordered eating behaviours:

274 "Whereas, since lockdown, because I live alone...I'm on my own in the house  
275 because there's nobody else around and I've got my house full of food, I have  
276 more and more preoccupied thoughts about food." (R4880)

277

278 One participant compared the first weeks of confinement during lockdown with  
279 being back in hospital, while two other participants described their realisation that  
280 the lockdown only emphasised how socially isolated they had been before.

281 Becoming aware of this loneliness was seen as painful, but experiencing this social  
282 isolation due to external circumstances made it more apparent that enhanced social  
283 support would be helpful:

284 "Sometimes I think I found I couldn't manage the intensity of what I was going  
285 through [with the eating disorder]...I've lost relationships because of it. Now I  
286 feel like I've got a [...] a very small [support system] compared to how I feel like I  
287 would need. But I feel like I could do with a lot more." (R7375)

288

### 289 3.1.2 Changes in Accountability

290 Depending on their living situation, participants in this study either experienced an  
291 increase in or decreased accountability to others for their behaviours during  
292 lockdown. Even though feelings towards accountability were ambivalent,  
293 participants had the tendency to associate an increase in accountability with  
294 improved eating pathology. Working from home without face-to-face social contacts  
295 led one of the participants to actively engage in her eating disorder:

296 “And there were more days of not eating the week before lockdown. I of course  
297 wasn't allowed in work and it was before they'd realise that, "Oh! You can do  
298 your job from home!" And...I just...I didn't eat for that entire week because it  
299 was like, 'Hey! I'm not accountable! No one else is here! This is the  
300 dream!'...Which is very dysfunctional! But it was absolutely...'This is all I've ever  
301 wanted!' with my 'eating disorder brain'. [...]" (R5082)

302

303 Another participant felt more accountable at home, where she lives with her  
304 partner:

305 “I'm very busy at work. And no one pays any attention to what I am eating, in  
306 my job. Whereas when I am at home with my partner, erm... and we eat  
307 together, it's much more difficult for me to *not* eat. Because he will ask me to  
308 eat a meal with him, or a snack with him [...]. I don't think that he's – he's  
309 perhaps as aware of that happening as I am. So, he just wants to eat lunch  
310 together.” (R1443)

311

312 All participants showed a high level of self-awareness for their disordered eating  
313 behaviours and how they previously or currently engage in them. An ambivalence  
314 towards accountability was experienced by most participants, which reflected a  
315 tension between both distress and relief associated with disordered eating  
316 behaviours. Even though accountability was seen as helpful, not being accountable  
317 (due to being alone) was also associated with feelings of safety by one of the  
318 participants:

319 “Like – if I was going to my work every day, I wouldn't be able to like exercise  
320 this much in the morning or I could, but I would have to get up super early. And  
321 I'll be out of the house longer and people will expect me to eat lunch and they'll

322 expect me to not just eat salads and my mum will expect me to go out with her  
323 more [...] like there's lots of more expectations of...I suppose less opportunity to  
324 hide and be quite like safe and withdrawn." (R7260)

325

326 The social restrictions of the lockdown are therefore an opportunity to evade  
327 expectations for recovery. This, however, was associated with anxiety regarding a  
328 future post-lockdown, when it wouldn't be possible to actively engage in certain  
329 behaviours anymore.

330 "[...] I used to slightly be anxious about coronavirus, but now I'm just anxious  
331 about where it's going to go from here. I've kind of gotten used to those  
332 thoughts. Now, I've got future worries about how I'm gonna go back out into the  
333 world" (R9143)

334

### 335 3.1.3 Increased Responsibility

336 Due to the social distancing measures, participants had less or modified professional  
337 support and communicated with their friends and family primarily via phone and  
338 online. Having had experiences of continued recovery was therefore an opportunity  
339 to claim responsibility for certain accomplishments.

340 "I *hope* that I won't slip back into that habit [not eating lunch], because I think  
341 actually, I'm doing quite well now. [...] and it will be nice if I could take  
342 responsibility for that myself as well, really." (R1443)

343

344 Again, the conditions appeared to influence how participants coped with the  
345 increased responsibility for themselves and others. Participant 1443 was working  
346 towards recovery before the lockdown was introduced and received additional  
347 support from her partner. Other participants were living on their own or had to take  
348 on additional responsibilities due to the pandemic. Participant 4110, who was taking  
349 care of her two younger brothers due to her mother being part of the high-risk  
350 population, described how buying foods for others increased her preoccupation with  
351 food and compensated for not eating the food herself:

352 "[...] I am buying a lot of food just like for my brothers, because I am doing all  
353 the shopping because my mum is not here. I am buying so much food. [...] – and

354 a lot of it I am doing because I know that I can't eat it. Like I am – I just buy  
355 everything, [...] it's not even pleasure, I just don't know, I am obsessed with it.  
356 Like I hate food shopping I absolutely hate it. But I spend - I have never spent so  
357 much money on food shopping in my life." (R4110)

358

359 Heightened responsibility was experienced by most participants, but resulting  
360 behaviours and cognitions differed depending on their living situation, eating  
361 disorder progression and how readily accessible additional support was during the  
362 first weeks of lockdown.

363

### 364 3.2 Functional Restrictions

365 The lockdown not only limited people's social interactions, but also the way they  
366 could organise their daily life. Many activities such as the commute to and from  
367 work, meal time routines and food shopping had to be altered, meaning participants  
368 had to build up new routines. Related to these functional restrictions, we identified  
369 tendencies associated with this lack of structure, becoming increasingly 'intentional'  
370 in planning social activities and exercise, and managing a desire for  
371 anonymity/secretcy in the context of food purchasing.

372

#### 373 3.2.1 Lack of Routine and Structure

374 All participants referred to rigid behaviour when describing their disordered eating  
375 behaviour. Routine and structure were not only seen as important, but also essential  
376 to being able to cope with dysfunctional thoughts and behaviours. The lockdown  
377 disrupted established routines and heightened participants' need for introducing  
378 new structures and routines into their lives:

379 "So...So, my eating routines have changed probably for the better. Because I'm  
380 with my partner more. Erm...Yeah. I think...[pause] Erm... [pause] I-I think I have  
381 struggled a lot with...Worry about not getting food that I feel comfortable  
382 eating." (R1443)

383

384 Maintaining both daily routine and structure functions to both perpetuate and  
385 mitigate disordered eating psychopathologies. Most respondents referred to these

386 behaviours, especially in relation to times and environments associated with eating.  
387 Participant 7260 referred to this in terms of social cues and expectations from  
388 colleagues:

389 "Yeah because I see what was keeping me in my routine was having people  
390 around me, so like some people at my work knew so they'd be like 'It's lunch  
391 time!' and like we would all be all over so we might not eat together but like  
392 because -and we would eat at our desks and stuff as we were working, but  
393 because people said like it's lunchtime like it was easier to do things in a routine  
394 when you've got more of a routine. Whereas like, the whole day just seems the  
395 same even if you're working, even if you've got meetings or whatever, it's not,  
396 the day is split so like yeah." (R7260)

397

398 Similarly, participants referred to a lack of routines making disordered eating habits  
399 less severe. Without pre-lockdown routines and structures, Participant 4110 did not  
400 feel compelled to mitigate maladaptive eating behaviours:

401 "I don't know, like I think – there's just always like just that thing that like I go to  
402 in my life that as soon as things like kind of change and go a bit crazy like it's my  
403 kind of go to and the – and my brain is automatically like, 'Ok, well, like, let's just  
404 stop it then forever, d'you know- let's just cut down, or let's do this or...' There  
405 was definitely change or it was quite slow at first it wasn't like let's stop eating  
406 altogether it was just like let's cut back a bit and see how that works." (R4110)

407

408 As established routines and structures were inevitably impacted due to the  
409 lockdown, participants reported being disconcerted by having to deconstruct rigid  
410 regimens to adjust to the current situation. For Participant 2696, the lack of physical  
411 boundaries distinguishing work and leisure has been unpleasant:

412 "But, it has been kind of strange, and I personally have actually hated working  
413 from my flat. I really, really like to implement those physical boundaries around  
414 saying, "Okay, I'm going to work now"--treating study like work, going to the  
415 library, getting to my lectures and then I come back to the flat. "Fine. This is  
416 where you don't work. This is where I chill out. I rest." So, that's been very  
417 difficult." (R2696)

### 418 3.2.2 A Need for Intentionality

419 Prior to the lockdown, participants' daily routines were to some extent externally  
420 regulated and offered diverse opportunities to socialize, without actively choosing to  
421 do so. Having to compensate for this new type of confinement and a more sedentary  
422 lifestyle led participants to introduce more intentional, consciously-planned activities  
423 or to intensify their exercise routines, which were in some instances perceived as  
424 compulsive.

425 "Yeah, because now it is like exercise for exercise sake, whereas like before it  
426 was like a social thing. I was doing that with people, and I was going to the gym  
427 to see people and then I was going running with people and now it's just like I  
428 need to exercise because I am in the house sitting still being lazy all  
429 day." (R7260)

430

431 Having to *schedule* all social interactions further meant that participants had to  
432 actively reach out for support if needed. Participant 9143 described how her  
433 problems with communication are part of her eating disorder and part of why she  
434 misses the casualness of social interactions before lockdown:

435 "[...] It's harder to bring things up if today I'm struggling...Before, it was a lot  
436 easier in-person to pass it by in conversation rather than make such a big deal  
437 out of it. That's what I feel like it is now—just a lot of emphasis rather than just  
438 notice I'm not very well. [...] But, when I'm with some people I know, I find it  
439 hard to open up, and they usually can tell a lot by my body language and  
440 behaviours. That's probably a big reason why I have an eating disorder and still  
441 do...It's a way of communicating, isn't it? If I'm not okay and people can't see  
442 that, I find it hard then to communicate how I am, or if I need help or something  
443 without being in person." (R9143)

444

445 The intention to socialise across distinct environments within participants' daily  
446 routines became increasingly apparent once interaction frequencies changed and  
447 environments became more static. For participant 4880, unintentional social  
448 interactions grew more apparent after their day-to-day schedules were disrupted:



449 "I don't really have a 'social life' so to speak, before lockdown anyway. But the  
450 thing that has changed is I'm not having the little interactions I would have been  
451 having before with other people at the swimming pool or with my yoga teacher,  
452 or with colleagues in the office at work. So, I'm not having any of these  
453 interactions." (R4880)

454

455 Overcompensating for both a lack in activity and a perceived inability to purposefully  
456 ask for support are the result of fewer opportunities to engage in daily rituals.

457 Participants discussed replacing typical daily lower intensity exercise with more  
458 moderate and vigorous exercise once lockdown restrictions were implemented:

459 "Erm...Yeah, I think I – I think I started running properly, erm... at the beginning  
460 of lockdown. Because I think, for me, I couldn't...Not being able to go out for  
461 long walks in [the national park] or wherever was really difficult. So, I think I just  
462 felt like I needed something to replace that—to try and keep myself...  
463 stable." (R1443)

464

465 Participant 5082 reported utilizing the 'one form of exercise per day' mandate by  
466 attempting to exercise as much as possible in the allotted opportunity for physical  
467 activity:

468 "[...] I can only get out once a day. I'll have to make the most of it. I'll have to  
469 run. There can't be any, 'Fuck it. I'm not doing it. I feel like shit.' You have to get  
470 out. You have to do it. And then...Thinking of days when I felt I really had to  
471 compensate. It would be walking a long way to the shops. And then...Yeah. It  
472 was a bit of a grey area, in terms of, "Should I really be out for three, four hours  
473 running on the fell? Erm...Probably not." (R5082)

474

475 For most participants, interrupted routines and structures impacted rigid behaviours  
476 that served various functions regarding eating pathology. Intentionality across social  
477 interactions and exercise regimes became increasingly evident as the lockdown  
478 prevented access to work environments, altered social interactions, and increased  
479 perceived sedentary behaviours. However, situations differed based on individual

480 motivations behind established routines, which either mitigated or exacerbated  
481 disordered eating behaviours, perception of sociality, and exercise habits.

482

### 483 3.2.3. Secrecy

484 Concern around being recognised in shops and whether or not disordered eating  
485 behaviours were noticeable was raised by some participants. Anxiety surrounding  
486 others' assumed options on deemed 'non-essential' food purchases, frequency going  
487 to supermarkets, and detectability of disordered eating symptoms contributed to a  
488 want to maintain secrecy.

489

490 For two respondents who identified with binge-eating disorder and OSFED  
491 respectively, heightened awareness of food purchasing behaviours impacted food  
492 purchasing behaviours. Participant 2445 referred to frequenting different shops to  
493 possibly prevent shop staff from noting perceived inappropriate purchases during  
494 lockdown:

495 "The fear of being recognised is what has made me feel very anxious about  
496 going to the shops, so I tend to switch stores every two or three days just to  
497 make sure that people don't recognise me and they don't know who I am and I  
498 can be free to purchase whatever I want to purchase! It's a bit of an awkward  
499 concept." (R2445)

500

501 Shame was also evident in discussions around food purchasing and possible staff  
502 recognition. With limits on store occupancy and designated for essential workers,  
503 shopping behaviours that perhaps once seemed more nondescript now seemed  
504 more conspicuous:

505 "That guilt going to the shops. The 'beige food trolley', which...And it's even  
506 better because at eight o'clock, it's yellow sticker shopping. And NHS key  
507 workers get straight in. So, you get a full range of the entire binge foods that you  
508 could want! Or, what I would use. And then, because of where I live...Well, it's a  
509 tourist town. And the shop is normally really, really busy. Loads of tourists  
510 struggle to even buy milk. Now, eight o'clock I can go and be the only person in.  
511 And if I'm on full-blown 'binge mode', 'This is what is happening!'...The shop

512 assistants know me. And, if I bump into people and they recognise me, and then  
513 it's this whole thing, 'Oh...I was in here two days ago doing this...' So, that's been  
514 hard..." (R5082)

515

516 Depending on participants' living situation, hiding certain behaviours became a way  
517 to avoid friends' and relatives' concerns or help:

518 "I don't [talk about my eating disorder now], because I don't want, I don't want  
519 anyone to stop me either, like I kind of do – but I also don't." (R7260)

520

521 While for those sharing the household with a partner, not being able to keep certain  
522 behaviours hidden was a cause of anxiety, because they were forced to accept how  
523 disordered their behaviours had been.

524 "I used to do nearly all of our food shopping. And... my partner would just let me  
525 get on with it, because I did the food shopping. Erm... whereas – because he's  
526 wanted to make sure we've had enough of things, and he knows that I'm not  
527 likely to judge that very well, erm... he's started doing the online shopping, or  
528 checking it before... before we place the order and adding loads of things...  
529 which makes me really anxious. Because [...] I just - I hate it. [...] but also, it kind  
530 of is making me realize how... perhaps... disordered some of my habits were. [...] a  
531 lot of the... stuff around food during lockdown has made me really anxious.  
532 Erm... but I also do think it's-it's teaching me... erm... where I'm still really  
533 maintaining quite rigid control. Erm... perhaps without realising it." (R1443)

534

### 535 3.3 Restrictions in Accessing Professional Support

536 As support services had to adapt in relation to health and safety concerns, some  
537 participants highlighted new and continued barriers to support, while one  
538 participant viewed increased online communication as beneficial.

539

#### 540 3.3.1. Accessibility of support

541 All participants mentioned comparisons between personal health concerns and  
542 overall health concerns surrounding the COVID-19 pandemic when discussing their  
543 thoughts on available supportive resources. For Participant 2445, receiving medical

544 assistance during lockdown was a mixed experience. Compared to others who  
545 needed medical attention and resources during this time, they believed their  
546 situation was not as critical, but nevertheless required more attention than was  
547 offered:

548 “A couple of days ago, I was in hospital and they offered me psychiatric help,  
549 and they told me that I was technically allowed to receive it, but I wasn't 'bad  
550 enough' to be in the psychiatric ward or be followed-up by a psychiatrist or a  
551 psychologist. I do understand that there are much bigger problems going on, but  
552 I felt like I wasn't 'sick enough'...Nobody should feel like they're not 'sick enough'  
553 to be taken care of. I feel like I've kind of been let down by the whole system at  
554 this point, and I haven't been able to talk to a therapist. I wasn't able to start a  
555 new round of therapy because, at this point, I finished my journey with the  
556 whole clinic...[...] And it's not very clear how I should approach my GP or how I  
557 should try to find a new counsellor.” (R2445)

558

559 Many participants mentioned not necessarily wanting more help, as they believed  
560 others were in greater need for support at the moment, due to COVID-19. Most  
561 mentioned their belief that receiving more support may take away health providers  
562 from perceived more important cases:

563 “To be honest, I feel lucky to have the support that I do, and, like you said, I am  
564 also really, really aware that there are people all over the country who are  
565 struggling with lockdown who don't have any support whatsoever. I think my  
566 main feeling around it is, to be honest, I feel undeserving of weekly hour  
567 long mental health support when everybody's struggling with their mental  
568 health at the moment...I certainly don't think that I would want more.” (R4880)

569

570 Similarly, Participant 1096 referred to the resources and support others affected by  
571 COVID-19 required, and stated that anxiety and age restrictions prevented them  
572 from seeking additional support:

573 “So, yeah, it's like the only support that I get, because of COVID-19 I daren't ask  
574 my GP for more support...GP, the access is there but it is much, much, much  
575 more difficult because it has to be telephone call, there's no text-based service. I

576 can't text, I can't email, I can't book appointments online...It makes it much  
577 more inaccessible for me. So it exists, but it is not one I can use. I also do the fun  
578 thing of being ever so slightly too old for some of the support offered by BEAT  
579 because a lot of that is 18-25 and I am 26..." (R1096)

580

581 Conversely, some participants had different experiences regarding streamlined  
582 medical care and support services, and online options during lockdown. Compared  
583 to previous practical contact with service providers, Participant 7260 expressed  
584 preference for adapted and restructured eating disorder support services:

585 "I think it has been really good that support services have had to adapt to using  
586 digital technology. Before, everyone had been really quite resistant to like online  
587 communication I think, like how long has it taken for any medical records to  
588 even be digital...I think that actually there's a few benefits in it, like no one  
589 would choose for this to happen but at the same time I hope that things don't  
590 go back to the way they were, where everyone had to physically turn up to  
591 buildings to access a service." (R7260)

592

#### 593 4. Discussion

594 This study is the first using an in-depth interview approach with adults with mixed  
595 eating disorder presentations in the UK. Our results suggest the impact of COVID-19  
596 lockdown in the UK can be described as a catalyst for either the exacerbation of  
597 disordered eating behaviours, or for eating disorder recovery. The findings  
598 highlighted the structures of social and functional restrictions, as well as restrictions  
599 in accessibility to professional support, to be crucial determinants of mental well-  
600 being in this group. Personal experiences of disordered eating during lockdown were  
601 seen as either facilitated or limited by these restrictions, depending on participants'  
602 living and work situation, as well as their eating disorder progression. Predominant  
603 feelings of ambivalence towards lockdown measures were in line with participants'  
604 feelings towards recovery. Ambivalence in eating disorder recovery has previously  
605 been described as "a state of dynamic stability" (Bell, 2013) due to conflicting  
606 motivations in long-term eating disorder pathology. Participants in this study  
607 described feeling safe or proactive while engaging in disordered eating or excessive

608 exercise, even if they were working towards recovery and recognised that their  
609 mental health was affected by their behaviours. Being externally restricted through  
610 the lockdown measures might have reinforced the ambivalent perception of agency  
611 in the context of disordered eating behaviours (Shohet, 2007).

612

613 Our findings partially aligned with the pathways proposed by Rodgers et al. (2020).  
614 The disruption to usual life and the resulting influence on meal patterns, routines,  
615 and physical activities had a considerable impact on the lives and eating disorder  
616 symptoms of participants. Social isolation and removal of social support led to an  
617 increased sense of loneliness and resulted in impact on accountability (Akey &  
618 Rintamaki, 2014), their routines and sense of responsibility. Participants reported  
619 having to redesign and restructure the usual aspects of their lives which heightened  
620 participants' awareness of their behavioural intentions, seeking to reintroduce the  
621 incidental aspects of day to day life into the new mode of living during the COVID-19  
622 pandemic. Participants' responsibility for themselves and intentionality in planning  
623 their own actions were highlighted as being key mechanisms influencing their eating  
624 disorder behaviours.

625

626 In contrast, Rodgers et al.'s (2020) second and third pathways – concerning  
627 increasing in detrimental media exposure and health concerns were less apparent in  
628 our findings. Regarding health anxiety, participants voiced concern primarily  
629 regarding the threat of the virus for others such as the elderly or vulnerable loved  
630 ones rather than towards themselves, often feeling undeserving of professional  
631 support as others were viewed as needing it more in the pandemic context.

632

633 One key, and novel, finding of this study was the lockdown associated with COVID-19  
634 being experienced as a catalyst for *recovery* from disordered eating behaviours for  
635 some, whilst be related to increased difficulties for others. Previous authors have  
636 highlighted that COVID-19 may precipitate or exacerbate disordered eating  
637 behaviours (e.g. Weissman et al., 2020). However, reported experiences in our study  
638 reveal the potential of the pandemic to improve eating disorder symptomatology  
639 through its focus on self-efficacy and risk management. Motivations for continuous

640 recovery were risk avoidance in the context of COVID-19, and a sense of  
641 achievement of managing without professional support. That said, not all  
642 participants were in a position to experience this; severe eating disorder pathology  
643 before and during lockdown was not associated with reported improvements in  
644 eating disorder management. Individual perceptions of negative impact were highly  
645 dependent on how participants conceptualised current eating disorder symptoms,  
646 which was generally ambivalent and differed between expected short-term and  
647 long-term impact.

648

649 A further important finding of the present study was participants' concept of the  
650 perceived future post-lockdown. The introduction of the lockdown was followed by  
651 multiple amendments which will eventually allow UK residents to return to their  
652 workplaces. The easing of restrictions is thereby associated with as much, if not  
653 more, uncertainty as the introduction of the social distancing measures. Established  
654 lockdown routines continuously need to be adapted, which was highly anxiety  
655 inducing for most participants in our study. Future studies will have to assess the  
656 long-term impact of this uncertainty on eating behaviours and exercise routines.

657

#### 658 4.1. Strengths and Limitations

659 Throughout the pandemic, recommendations and guidance rapidly changed; thus,  
660 capturing the experience of a particular period during the pandemic was challenging.  
661 The interviews were performed from 14th May until 4th June, with four interviews  
662 being conducted after the first amendment to lockdown restrictions was  
663 implemented in Scotland and England. However, lockdown restrictions were still  
664 seen as significantly impacting participants' lives and capturing this change might  
665 have enabled us to identify additional feelings of uncertainty due to changing  
666 circumstances.

667

668 In addition, only White, predominantly female participants volunteered to take part  
669 in this study, limiting the generalizability of our research findings. Regarding  
670 pathology, we were able to interview participants with a wide range of eating

671 disorder behaviours. Even though most participants identified with Anorexia  
672 Nervosa, our findings are based on various clinical pictures, which enriched our  
673 analysis.

674

675 Finally, all interviews were guided by a semi-structured interview schedule to ensure  
676 consistency among interviewers and interviews, while allowing for flexibility in the  
677 data collection, depending on participants' experiences. This, however, meant that  
678 interviews varied in length and focused on slightly different topics, if participants  
679 chose to elaborate on certain experiences more than on others.

680

## 681 5. Conclusion

682 Social, functional, and professional support-related restrictions were three main  
683 themes of underlying lockdown structures inductively identified from 10 interviews  
684 with individuals with an eating disorder. The tendencies identified related to social  
685 isolation, accountability, increased responsibility, lack of routine and structure,  
686 intentionality, and secrecy all reflect Rodgers et al.'s (2020) first pathway of the  
687 COVID-19 pandemic's impact of disruption and restrictions to established daily  
688 routines and interactions. Exploring how existing professional support services can  
689 best adapt to help those with eating disorders manage these difficulties would be  
690 valuable going forward.



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693

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695 S.B. and M.O. conducted the interviews. S.B., M.O., and I.P. transcribed the  
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697 the study and writing the manuscript. All authors have approved the final article.

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702

703

704 8. References

705 Aguinis, H., & Henle, C. A. (2002). Ethics in research. *Handbook of research methods*  
706 *in industrial and organizational psychology, 5*, 34-56.

707 Akey, J. E., & Rintamaki, L. S. (2014). Optimal social support practices for health care  
708 professionals who treat patients managing eating disorders. *The Journal of*  
709 *Nervous and Mental Disease, 202*(2), 126-132.

710 doi:10.1097/NMD.0000000000000081

711 Bell, N. J. (2013). Rhythm and semiotic structures of long-term ambivalence in the  
712 dialogical self: Eating disorder and recovery voices. *Journal of Constructivist*  
713 *Psychology, 26*(4), 280-292.

714 doi:<https://doi.org/10.1080/10720537.2013.812857>

715 Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative*  
716 *research in psychology, 3*(2), 77-101.

717 Cooper, M., Reilly, E. E., Siegel, J. A., Coniglio, K., Sadeh-Sharvit, S., Pisetsky, E., &  
718 Anderson, L. (2020). Eating disorders during the COVID-19 pandemic: An  
719 overview of risks and recommendations for treatment and early intervention.  
720 *Eating Disorders*. doi:10.1080/10640266.2020.1790271

721 Davis, C., Chong, N. K., Oh, J. Y., Baeg, A., Rajasegaran, K., & Chew, C. S. E. (2020).  
722 Caring for children and adolescents with eating disorders in the current  
723 COVID-19 pandemic: A Singapore perspective. *Journal of Adolescent Health*.  
724 doi: <https://doi.org/10.1016/j.jadohealth.2020.03.037>

725 Fernández-Aranda, F., Casas, M., Claes, L., Bryan, D. C., Favaro, A., Granero, R., . . . Le  
726 Grange, D. (2020). COVID-19 and implications for eating disorders. *European*  
727 *Eating Disorders Review, 28*(3), 239. doi: <https://doi.org/10.1002/erv.2738>

728 Holian, R., & Coghlan, D. (2013). Ethical issues and role duality in insider action  
729 research: Challenges for action research degree programmes. *Systemic*  
730 *Practice and Action Research, 26*(5), 399-415. doi:10.1007/s11213-012-9256-  
731 6

732 Holland, G., & Tiggemann, M. (2016). A systematic review of the impact of the use of  
733 social networking sites on body image and disordered eating outcomes. *Body*  
734 *Image, 17*, 100-110. doi:10.1016/j.bodyim.2016.02.008

735 Holmes, E. A., O'Connor, R. C., Perry, V. H., Tracey, I., Wessely, S., Arseneault, L., . . .  
736 Overall, I. (2020). Multidisciplinary research priorities for the COVID-19  
737 pandemic: a call for action for mental health science. *The Lancet Psychiatry*.  
738 doi: [https://doi.org/10.1016/S2215-0366\(20\)30168-1](https://doi.org/10.1016/S2215-0366(20)30168-1)

739 Houston, S. (2001). Beyond social constructionism: Critical realism and social work.  
740 *British journal of social work*, 31(6), 845-861.

741 Manicas, P. T. (2009). Realist metatheory and qualitative methods. *Sociological*  
742 *Analysis*, 3(1), 31-46.

743 Murphy, R., Calugi, S., Cooper, Z., & Dalle Grave, R. (2020). Challenges and  
744 opportunities for enhanced cognitive behaviour therapy (CBT-E) in light of  
745 COVID-19. *The Cognitive Behaviour Therapist*, 13.  
746 doi:<https://doi.org/10.1017/S1754470X20000161>

747 Phillipou, A., Meyer, D., Neill, E., Tan, E. J., Toh, W. L., Van Rheenen, T. E., & Rossell,  
748 S. L. (2020). Eating and exercise behaviors in eating disorders and the general  
749 population during the COVID-19 pandemic in Australia: Initial results from the  
750 COLLATE project. *International Journal of Eating Disorders*. doi:  
751 <https://doi.org/10.1002/eat.23317>

752 Reger, M. A., Stanley, I. H., & Joiner, T. E. (2020). Suicide mortality and coronavirus  
753 disease 2019—a perfect storm? *JAMA Psychiatry*.  
754 doi:<https://doi.org/10.1001/jamapsychiatry.2020.1060>

755 Rodgers, R. F., Franko, D. L., Brunet, A., Herbert, C. F., & Bui, E. (2012). Disordered  
756 eating following exposure to television and internet coverage of the March  
757 2011 japan earthquake. *International Journal of Eating Disorders*, 45(7), 845-  
758 849. doi: <https://doi.org/10.1002/eat.22031>

759 Rodgers, R. F., Lombardo, C., Cerolini, S., Franko, D. L., Omori, M., Fuller-Tyszkiewicz,  
760 M., . . . Guillaume, S. (2020). The impact of the COVID-19 pandemic on eating  
761 disorder risk and symptoms. *International Journal of Eating Disorders*. doi:  
762 <https://doi.org/10.1002/eat.23318>

763 Shohet, M. (2007). Narrating Anorexia: "full" and "struggling" genres of recovery.  
764 *Ethos*, 35(3), 344-382. doi:<https://doi.org/10.1525/eth.2007.35.3.344>

- 765 Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting  
766 qualitative research (COREQ): a 32-item checklist for interviews and focus  
767 groups. *International journal for quality in health care*, 19(6), 349-357.
- 768 Touyz, S., Lacey, H., & Hay, P. (2020). Eating disorders in the time of COVID-19.  
769 *Journal of eating disorders*, 8(19). doi:[https://doi.org/10.1186/s40337-020-](https://doi.org/10.1186/s40337-020-00295-3)  
770 [00295-3](https://doi.org/10.1186/s40337-020-00295-3)
- 771 Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate  
772 psychological responses and associated factors during the initial stage of the  
773 2019 coronavirus disease (COVID-19) epidemic among the general population  
774 in China. *International journal of environmental research and public health*,  
775 17(5), 1729. doi:<https://doi.org/10.3390/ijerph17051729>
- 776 Weissman, R. S., Bauer, S., & Thomas, J. J. (2020). Access to evidence-based care for  
777 eating disorders during the COVID-19 crisis. *International Journal of Eating*  
778 *Disorders*, 53(5), 639-646. doi:<https://doi.org/10.1002/eat.23279>  
779