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1 **Title**

2 Experiences and Perspectives of Patients Undergoing Colorectal Cancer Surgery: A Qualitative Study

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23 **Author contributions**

24 **Claire Hannah:** Conceptualisation, Methodology, Formal Analysis, Investigation, Resources, Data

25 Curation, Writing-Original Draft, Visualisation, Project administration. **Andrew Ramwell:** Writing -

26 Review and Editing; **Lars E. Eriksson:** Methodology, Formal Analysis, Writing - Review and

27 Editing contributed, **Sofia Llahana:** Conceptualisation, Methodology, Software, Validation, Formal

28 Analysis, Supervision, Writing - Review and Editing

29 **Abstract**

30 *Purpose:* This study aimed to explore the experiences of patients with colorectal cancer  
31 undergoing surgical treatment, capturing their perspectives from diagnosis through to post-  
32 discharge recovery.

33 *Methods:* A qualitative methodology was adopted, utilising semi-structured virtual interviews  
34 with ten patients recruited from a specialist colorectal clinic. Interviews were transcribed  
35 verbatim, and data analysed by the process of inductive thematic analysis, using interpretive  
36 description.

37 *Results:* Themes emerged across the domains of clinical and external, patient-level, and  
38 interpersonal and social factors affecting patient experience at diagnosis, surgery, and  
39 recovery stages. Clinical and external factors included the impact of the hospital  
40 environment, resource limitations, and the attributes of the clinical team, including ward  
41 nurses, clinical nurse specialists, and consultant surgeons, in providing compassionate  
42 support. Patient-level themes encompassed perceptions and emotional impacts of the  
43 diagnosis, and physical challenges post-surgery. Interpersonal and social factors included  
44 family support and the psychosocial impact of role changes during recovery.

45 *Conclusions:* Findings highlight the need for comprehensive, compassionate communication  
46 and tailored support across the patient journey. Recommendations include enhanced patient  
47 education on lifestyle impacts, resources to support family and peer networks, and more  
48 attention to psychosocial and emotional challenges in patient-centred care.

49

50 **Keywords:**

51 Colorectal cancer, patient experiences, surgery, stoma, postoperative recovery, interpretive  
52 description, qualitative research.

53

54 **Highlights:**

- 55       • Effective communication and tailored support were viewed as vital by the interviewed  
56       patients with colorectal cancer.
- 57       • Timely diagnosis and continuity of care were negatively affected by COVID-19-related  
58       resource and workforce limitations.
- 59       • Psychosocial support, including peer and family guidance, played a key role in helping  
60       patients cope with their journey.
- 61       • Patients valued practical guidance on adjustments like diet, symptom management, and  
62       recovery planning after surgery.

63

64

65

## 66 **1. Introduction**

67 Colorectal cancer is the third most common cancer, with the second highest mortality rate  
68 (Sung et al., 2021). Surgery, which may involve the creation of a temporary or permanent  
69 stoma, is the main treatment modality, while chemotherapy or radiotherapy, or both, are used  
70 in selected cases before (neoadjuvant) and or after (adjuvant) surgery (Rønning et al., 2016;  
71 Eriksen et al., 2021). Treatment for colorectal cancer can be life-changing for patients  
72 depending on needs specific to the individual (Drury et al., 2017). Common symptoms  
73 include fatigue, nausea, psychological distress, and issues related to sexual and urinary  
74 function, which can all impact on quality of life (Bregendahl et al., 2014; Jakobsson et al.,  
75 2017; Jonsson et al., 2011; Wennström et al., 2010; Worster and Holmes, 2009). A common  
76 side effect of surgical treatment is bowel dysfunction, experienced by more than 80% of  
77 patients who undergo sphincter preserving surgery (without permanent colostomy) (Keane et  
78 al., 2017). The formation of an ileostomy or colostomy can significantly impact patients'  
79 quality of life (Brown and Randle, 2005). Our study focused on patients with cancers of the  
80 colon and rectum, with "colorectal cancer" used to describe these cancers specifically,  
81 excluding anal cancer.

82 Quantitative aspects of the trajectory being diagnosed and treated for colorectal cancer have  
83 been investigated and Patient Reported Outcome Measures (PROMs) have been developed,  
84 including for use in UK contexts (Sutton et al., 2019). However, existing literature highlights  
85 the need for a more in-depth understanding of patients' experiences and perspectives from  
86 diagnosis through the weeks following discharge, as this can help identify unmet needs while  
87 recognising the unique nature of each patient's journey (Samuelsson et al., 2018; Worster and  
88 Holmes, 2008). The transition from hospital to home has been highlighted as a crucial period  
89 for patient education and support, particularly as patients work to regain control over their  
90 lives (Anderson et al., 2013; Lithner et al., 2015).

91 **Worster and Holmes (2008)** explored patients' post-discharge experiences, yet participants  
92 focused on preoperative challenges, highlighting the importance of support during diagnosis.  
93 Patients facing colorectal surgery, especially the potential for a stoma, experience significant  
94 emotional stress, with 35-71% of patients reporting symptoms of anxiety or depression  
95 **Chaudhri et al. (2005)**. Additionally, untreated preoperative distress in patients with  
96 colorectal cancer is linked to a lower quality of life two years post-surgery (**Foster et al.,**  
97 **2016**).

98 Recent qualitative studies on patient experiences have largely been conducted in Scandinavia  
99 (**Eriksen et al., 2021; Jakobsson et al., 2017; Jonsson et al., 2011; Lithner et al., 2015;**  
100 **Samuelsson et al., 2018**) and Asia (**He et al., 2021; Lo et al., 2021**), with only two UK-based  
101 studies by **Anderson et al. (2013)** and **Sutton et al. (2019)**, which both used focus group  
102 interviews. While informative focus groups may limit discussions of sensitive issues,  
103 individual interviews could provide more in-depth understanding of patient experiences  
104 (**Bullock, 2016**). Scandinavian studies focusing on older adults indicate that, while they  
105 generally manage well post-discharge, improvements in follow-up care (**Eriksen et al., 2021**)  
106 and information provision are needed (**Samuelsson et al., 2018**).

107 Given the global prevalence of colorectal cancer and the critical period from diagnosis to  
108 post-discharge, there remains a notable gap in qualitative research exploring patient  
109 experiences through this journey, particularly in the UK context. This study aimed to address  
110 this gap by examining the experiences and perspectives of patients who underwent colorectal  
111 cancer surgery, with or without stoma formation, and who may have received neoadjuvant or  
112 adjuvant treatments such as chemotherapy or radiotherapy.

113 This study aimed to explore the experiences of patients with colorectal cancer undergoing  
114 surgical treatment, capturing their perspectives from diagnosis through to post-discharge  
115 recovery.

116 **2. Methods**

117 **2.1. Qualitative approach and research paradigm**

118 This was a qualitative study adopting an interpretive description methodology, utilising semi-  
119 structured one-to-one interviews to capture the experiential narratives of patients who  
120 underwent surgery for colorectal cancer. The Standards for Reporting Qualitative Research  
121 (SRQR) guidelines were followed to ensure rigour and transparency (O'Brien et al., 2014).  
122 Interpretive description offers a flexible approach that is particularly suited to exploring the  
123 intricate psychosocial and biological interactions within illness experiences, favouring  
124 inductive rather than deductive analysis (Thorne, 2016; Thorne et al., 1997). Individuals with  
125 lived experience of illness provide unique, expert insights, making this methodology well-  
126 suited for understanding complex patient journeys.

127 **2.2. Researcher characteristics and reflexivity**

128 The research team comprised two qualitative researchers (SL and LEE) and two clinicians  
129 (CH and AR) with expertise in this patient population. A reflexive approach acknowledged  
130 that qualitative themes are co-constructed through the researchers' assumptions, skills, and  
131 the data (Braun and Clarke, 2019). The first author's role as a Colorectal Clinical Nurse  
132 Specialist may have influenced responses but also fostered rapport, enabling honest  
133 discussions and mitigating the risk of emotional distress.

134 **2.3. Context**

135 Participants were recruited from a specialist colorectal clinic at a National Health Service  
136 (NHS) hospital in London, United Kingdom (UK), which performs approximately 140  
137 colorectal resections annually.

138 **2.4. Sampling strategy**

139 A convenience sampling approach was used to recruit patients with diverse experiences  
140 across age, gender, background, and treatment types.



141 Inclusion criteria:

- 142 • Adult patients over 18 years of age, able to communicate in English,
- 143 • Patients who underwent surgical resection for confirmed colorectal cancer,
- 144 • Patients with sufficient physical and cognitive capacity to consent and participate in one-
- 145 to-one interviews

146 Exclusion criteria:

- 147 • Patients medically unfit to be interviewed, for example, if severe symptoms prevented
- 148 comfort during participation.

149 Participants were eligible if they had undergone surgery three weeks to three months prior to  
150 discharge, allowing adequate recovery time while experiences remained recent.

## 151 ***2.5. Ethical issues pertaining to human subjects***

152 The study was approved by the Research Ethics Committee of the NHS Health Research  
153 Authority (reference: IRAS ID: 312887) and registered with the Research Department at the  
154 School of Health and Medical Sciences at City St George's, University of London (reference:  
155 ETH2223-0145) as the Sponsor for this study.

156 The study adhered to key research ethics principles:

- 157 1) Informed consent. Eligible patients received a Patient Information Sheet and consent form  
158 within two weeks to three months post-discharge. Consent was collected securely via a  
159 University Qualtrics® account, and participants could withdraw at any time.
- 160 2) Integrity. Each participant was assigned a study ID and data handling adhered strictly to  
161 the Data Protection Act 2018, the General Data Protection Regulations 2016, and the Data  
162 Protection Bill, ensuring participant confidentiality and data integrity.
- 163 3) Risk of harm. The interviewer, an experienced Clinical Nurse Specialist, monitored for  
164 distress during interviews and provided follow-up support, with referral to a psychologist if  
165 needed.

166 **2.6. Data collection**

167 Recruitment and interviews were conducted in parallel between June and November 2022. To  
168 minimise risk of infection associated with COVID-19, interviews, lasting 30-40 minutes  
169 each, were conducted virtually using a secure Zoom or Microsoft Teams University account,  
170 at a time convenient for participants. An interview guide (**Supplementary Material**) based  
171 on the study objectives was pilot tested with the first participant. The guide covered six main  
172 topics: (a) feelings at diagnosis, (b) quality of information, (c) stay in hospital, (d) the  
173 treatment received, (e) feelings when receiving the postoperative histology results and (f)  
174 challenges faced since the operation.

175 **2.7. Data analysis**

176 Thematic analysis, utilising QSR NVivo 12 software for qualitative analysis, allowed a  
177 rigorous process of data familiarisation, coding, and theme identification **Braun and Clarke**  
178 **(2006)**. Analysis was conducted in parallel with data collection and audio recordings were  
179 transcribed verbatim by the first author. Data were analysed inductively to generate  
180 overarching themes and sub-themes that describe similar underlying experiences among  
181 participants. To minimise interpretive bias, 20% of transcripts were randomly selected and  
182 coded by SL, and cross-checked with those generated by CH. Reliability was assessed by  
183 theme concordance and any conflict was resolved in discussion with LE. Findings were  
184 reviewed and approved by all authors.

185 **3. Results**

186 Twenty-five patients met the inclusion criteria during the study period; two were excluded as  
187 did not have access to an online meeting software. Ten participants, seven female and three  
188 male, provided informed consent and were include in the study. Of these, eight participants  
189 were married, two single, nine identified as White British and one as Other White. All  
190 patients were older than 40 years of age (mean age 62.9 years, range 43 - 78).

191 Three participants were referred to the colorectal surgical clinic through the NHS bowel  
192 cancer screening programme, five were referred by a general practitioner, one was admitted  
193 via the emergency department, and one had undergone prior treatment at the clinic. Eight of  
194 the participants had an anterior resection (three with temporary ileostomies), one had a  
195 proctectomy with an existing colostomy, and one had a right hemicolectomy; six also had  
196 neoadjuvant chemotherapy.

197 Eleven themes described patients' experiences and perceptions of their diagnostic and  
198 treatment journey of colorectal cancer. These themes were mapped against three overarching  
199 domains: 1) Clinical and external factors; 2) Patient-level factors; 3) Interpersonal and social  
200 factors. Figure 1 visualises the conceptual model developed from the thematic analysis.

201 **Insert Figure 1 here**

### 202 ***3.1. Clinical and external factors***

#### 203 *3.1.1. The hospital environment*

204 All participants were admitted to a surgical ward, and many described the environment,  
205 especially the noise, as a barrier to their well-being, often resulting in disturbed sleep. The  
206 noise came from multiple sources, including other patients, staff, and equipment:

207 *“it’s almost like a complete assault on your senses, noises, the smells, the lights, the*  
208 *beepers, being with strangers...I found that very difficult” [P5]*

209 However, one participant felt that the ward environment positively impacted their well-being,  
210 as other patients provided entertainment and support: *“...very entertaining. If you’d been in a*  
211 *private ward you probably would have died of boredom...” [P8]*

#### 212 *3.1.2. Personal attributes of the clinical team*

213 All participants expressed appreciation for many of the staff, highlighting kindness, a positive  
214 attitude, and a caring approach as essential qualities. The Clinical Nurse Specialist was

215 frequently mentioned as a key source of emotional support and information, while the  
216 kindness of the ward nurses was also valued.

217 *“Being able to contact the clinical nurse specialist at any time, directly, to ask some of the*  
218 *most trivial questions, has always been a really important lifeline to me ... always*  
219 *reassuring and caring” [P7]*

220 The importance of feeling safe and comfortable with their consultant surgeon was also  
221 highlighted: *“I felt comfortable, and I felt positive, and I felt safe with [name]” [P5]*

### 222 3.1.3. Lack of human resources

223 Most participants reported negative experiences due to insufficient hospital and community  
224 resources, particularly a shortage of staff. This affected timely diagnosis, as many struggled  
225 to secure a GP appointment: *“I continue to have symptoms and tried to get through to the GP*  
226 *... you just ring and ring and ring” [P1]*

227 One participant reported that staff shortages contributed to discharge errors, resulting in their  
228 leaving the hospital without the correct medication:

229 *“I was discharged with an absolutely blank discharge form...and I actually said, am I not*  
230 *meant to be taking injections or something, and they looked at the note and said ‘No’...the*  
231 *discharge was a complete disaster!” [P10]*

232 Participants empathised with the ward nurses, recognising the high patient-to-nurse ratio and  
233 the pressure on staff. The heavy workload often impacted the level of care provided:

234 *“I could actually see that they were generally struggling to sort me out, and made me feel*  
235 *really sorry for the nurses because I could see the level of stress all day there” [P2]*

### 236 3.1.4. Communication and patient education

237 This theme emerged at every stage: diagnosis, treatment, and recovery. Participants discussed  
238 the verbal and written information provided about their diagnosis and treatment, highlighting

239 the importance of clear and comprehensive communication. Most gave positive feedback on  
240 the quality and quantity of information they received:

241 *“People were informative, were caring, gave me time to speak and ask questions, and not*  
242 *leave without being fully informed” [P4]*

243 However, one participant felt their postoperative histology was poorly communicated, as they  
244 learned of their need for further treatment only after being re-admitted for complications:

245 *“The whole they found cancer in the lymph nodes piece just sort of came out of the*  
246 *woodwork really... I think that probably could have been handled a bit better ... it’s*  
247 *treating the person as a whole” [P10]*

248 Others, while generally satisfied, suggested that practical advice, such as guidance on diet,  
249 side effects, and driving, would have been helpful for recovery:

250 *“Before the operation, just having had a little crib sheet, Q&A or something, maybe the*  
251 *same for leaving hospital... with reminders of what to eat and the driving point” [P9]*

### 252 **3.2. Patient-level factors**

#### 253 *3.2.1. Perception of cancer diagnosis*

254 Participants shared their thoughts on what might have caused their cancer. While one  
255 participant admitted they hadn’t considered it, others linked their diagnosis to their lifestyle,  
256 particularly diet. One participant working shifts in the hospitality industry noted:

257 *“I think mostly we’re down to my really messed up diet...eating the wrong food and eating*  
258 *at the wrong time” [P2]*

#### 259 *3.2.2. Emotional impact of diagnosis*

260 For both symptomatic and asymptomatic participants, the diagnosis came as a shock,  
261 significantly impacting their emotional well-being:

262 *“Quite a shock to the system ... wasn’t the news I was expecting. Looking back at the*  
263 *symptoms, I should have been a little bit more prepared” [P9]*

264 The fear of the unknown, particularly waiting for test results, was a major source of anxiety.

265 For one participant, unfamiliarity with colorectal cancer worsened this stress:

266 *“The most stressful time was waiting for appointments for the scans and then the period*  
267 *waiting for the diagnosis. You're in an area that you know nothing about...” [P7]*

### 268 *3.2.3. Positive attitude*

269 Participants discussed the importance of maintain a positive outlook on their diagnosis and  
270 treatment. One participant drew on faith, viewing the experience as ultimately hopeful:

271 *“I think it gives you that hope that an awful lot of people may not be able to tap into. You*  
272 *can't change a diagnosis, the key is how you manage it...” [P4]*

### 273 *3.2.4. Physical impact of surgery*

274 All participants experienced physical changes after surgery, particularly in bowel function.

275 For some, this included the impact of the newly formed stoma which required advanced  
276 planning for their daily activities and dietary adjustments:

277 *“I had to get used to complete new diet because of the ileostomy. ...and you have to make*  
278 *sure that you think your day ahead, well planned, much more planned than before” [P2]*

279 One participant noted the impact the stoma had on body image: *“I'm coping with it [the*  
280 *stoma] fine now, but you know, to see this alien on your body ... it's strange” [P7].* Even

281 those without a stoma experienced urgency and bowel frequency, affecting their day-to-day  
282 activities: *“As long as I knew there's a loo nearby, I'm a happy bunny” [P3].* Some

283 participants reported additional physical effects, such as prolonged paraesthesia of the lower  
284 limbs and fatigue, often linked to post-operative effects.

## 285 **3.3. Interpersonal and social factors**

### 286 *3.3.1. Support from family and friends*

287 Participants sought support from various sources, sometimes choosing to confide only in  
288 certain people to protect their family members. One participant shared how a friend with a

289 similar experience provided a supportive outlet:

290 *“My best friend was diagnosed with breast cancer a few years ago. So she went through a*  
291 *similar thing, and she as well felt that she got to the point where you don't want to talk*  
292 *about it all the time ... by talking to each other, we're protecting our families a bit” [P5]*

293 Another participant highlighted his wife’s emotional challenges during his treatment:

294 *“It was a bit of a shock to her, she found it quite stressful ... just sitting at home from*  
295 *seven o'clock in the morning not really knowing what was going on” [P10]*

### 296 3.3.2. Setting post-treatment goals

297 Setting goals and planning activities post-treatment helped participants maintain emotional  
298 well-being and encouraged moderation in daily activities. One participant used her daughter’s  
299 graduation as motivation:

300 *“I wanted to go to my daughter’s graduation. I knew that if I pushed myself, and I went*  
301 *backwards, I wouldn’t be able to go, so I had to behave myself” [P5]*

### 302 3.3.3. Psychosocial influences

303 The surgery impacted participants' psychosocial well-being, particularly for some who had to  
304 shift their role from a caregiver to a care recipient, like one participant with young children:

305 *“I am kind of looking forward to getting past all of this ... have my energy levels back up*  
306 *to be a good mum again. It's quite difficult to delegate the home stuff” [P9]*

307 Most participants were retired or worked from home, but for those who had to travel or work  
308 away from home, taking time off work or relying on benefit was psychologically challenging:

309 *“I worked for many, many years and I never went through the benefits system, so I had no*  
310 *clue how that works until this time. And I was absolutely shocked to realize that...” [P2]*

## 311 4. Discussion

312 This study highlights a range of clinical and external, patient level, and interpersonal and  
313 psychosocial factors influencing the experiences of a group of patients undergoing surgery

314 for colorectal cancer. These factors reflect the complex interplay of environmental factors,  
315 personal attitudes, and support systems, and the physical and emotional challenges across  
316 diagnosis, surgery, and recovery phases. These results are in line with the pre-COVID-19-  
317 pandemic findings of Sutton et al. (2019), exploring experiences of patients in a different UK  
318 context.

319 The hospital environment was described as having a notable influence on patient well-being.  
320 Similar to other studies (Abelson et al., 2018; Jonsson et al,2011; Samuelsson et al., 2018;  
321 Worster and Holmes, 2009), our participants reported that the noise and busyness of the ward  
322 were disruptive, especially affecting their sleep quality. However, one participant found  
323 fellow patients as a source of comfort and entertainment. These findings suggest that, where  
324 possible, noise should be minimised, and supporting earlier discharge could enhance  
325 recovery, as home settings often better meet patients' comfort and rest needs (Bernard and  
326 Foss, 2014).

327 Despite these challenges, the personal attributes of the clinical team, such as kindness,  
328 empathy, and attentiveness, were consistently appreciated by participants, who felt that the  
329 compassionate approach of their ward nurses, Clinical Nurse Specialists (CNSs), and  
330 consultant surgeons significantly contributed to their comfort and recovery. These findings  
331 align with prior research emphasising the value of patient-centred care and suggest that both  
332 emotional and informational support are integral to patient satisfaction (Jonsson et al., 2011;  
333 Simpson and Whyte, 2006). The CNS, in particular, was frequently cited as a vital resource  
334 for both emotional reassurance and practical guidance, supporting previous studies on the  
335 importance of the CNS role in cancer care (Broughton et al., 2004; Worster and Holmes,  
336 2008). Additionally, feeling “safe” with their consultant surgeon was a theme noted by  
337 several participants, reinforcing findings by Appleton et al. (2018) that perceptions of safety  
338 in clinical relationships positively impact patients' psychological well-being.



339 Staff shortages added additional challenges, as delays in care impacted patients' sense of  
340 safety and continuity of care. Data for the present study were collected following the  
341 COVID-19 pandemic, which significantly strained healthcare resources in primary care, an  
342 impact echoed by participants in this study who faced long waits for diagnostic appointments,  
343 forcing them to demand medical investigations. The pandemic led to a 30% reduction in  
344 primary care consultations, reflected also in a reduction in referrals for colorectal cancer,  
345 which may have worsened access to timely diagnoses (Watt et al., 2020; Morris et al., 2021).  
346 Participants gave positive feedback on the information received, though some reported that  
347 practical guidance for the early recovery period, such as managing diet and side effects,  
348 would have been beneficial. Research has shown that receiving consistent verbal and written  
349 information, as well as follow-up communication from the healthcare team, such as sensitive  
350 handling of post-operative histology results, can help patients feel more secure and supported  
351 (Aasa et al., 2013; Fujimori and Uchitomi, 2009).  
352 Similar to other studies, diagnosis of colorectal cancer had a significant impact on the  
353 participants' emotional well-being (Abelson et al., 2018; Worster and Holmes, 2008).  
354 Anticipation of diagnostic results and fear of the unknown created significant distress,  
355 particularly as many participants had limited prior knowledge of colorectal cancer. Also,  
356 concerns whether their former lifestyles, such as dietary habits, inactivity, and stress, may  
357 have contributed to their diagnosis were expressed, echoing previous research on colorectal  
358 cancer prevention (Perera et al., 2012). Participants valued compassionate information  
359 provision at all stages, and many noted that having information provided in both verbal and  
360 written formats would have enhanced their understanding. These findings reinforce the  
361 importance of clear, tailored communication throughout the patient's journey to address  
362 individual information needs and reduce anxiety (Epstein and Street, 2007; Worster and  
363 Holmes, 2008).

364 In contrast to [Worster and Holmes \(2009\)](#), who suggested that patient experiences of cancer  
365 diagnosis and treatment are broadly similar across all types of cancer, our findings indicate  
366 that colorectal surgery presents distinct challenges, particularly associated with stoma  
367 formation. Participants had to make dietary modifications and lifestyle adjustments to  
368 manage altered bowel function, a finding consistent with [Burden et al. \(2016\)](#). The need to  
369 plan activities around bowel habits, particularly for those who experienced urgency and  
370 frequency, impacted their routines and psychological well-being, with some adjusting their  
371 lives around proximity to toilets. The decision between sphincter-saving surgery and  
372 permanent stoma formation is complex, and our findings suggest it is essential to  
373 communicate the likely outcomes and lifestyle changes that may accompany each option  
374 ([Hou et al., 2017](#); [Lu et al., 2017](#); [Pachler and Wille-Jørgensen, 2012](#)). This is important to  
375 consider when educating patients about the risks and benefits of a permanent stoma. We  
376 found that fatigue and paraesthesia also affected patients' well-being, highlighting the need to  
377 address these issues. Discomfort, physical weakness, eating difficulties, and bowel change  
378 should be discussed with patients before discharge, reassuring them that these symptoms are  
379 normal and typically resolve or settle within the first six months ([Jakobsson et al., 2017](#)).  
380 Our study found that the patients' trajectory also impacted their psychosocial well-being.  
381 Participants coped with the emotional impact of diagnosis in various ways. For some  
382 participants, setting post-treatment goals helped maintain focus and motivation throughout  
383 recovery and it was underpinned that maintaining a positive outlook was an important coping  
384 mechanism, with some participants drawing on faith as a source of strength. The role of  
385 positive attitude and spirituality has been highlighted in other studies, which also found  
386 family members relied on the optimism of patients in maintaining a positive outlook, further  
387 underlining the importance of mental and emotional support within patient care ([Asediu et](#)  
388 [al., 2014](#)).

389 Family and friends were important sources of support, though for some participants they also  
390 caused anxiety as patients often attempt to protect loved ones by sharing only selected  
391 information with them and confiding in certain individuals such as close friends (Abelson et  
392 al., 2018; Hildebrandt et al., 2019; Worster and Holmes, 2008). Role changes, such as moving  
393 from caregiver to care recipient, were challenging, particularly for participants with young  
394 families, highlighting the importance of preparing patients and their families for these shifts.  
395 Financial challenges were another key concern, particularly for younger participants and  
396 those who needed to take extended time off work. The impact of work and financial pressures  
397 on patient well-being is well-documented in recent studies and underlines the need for  
398 practical support and counselling to help patients manage these adjustments (Husebø et al.,  
399 2021; Tiranda et al., 2019).

#### 400 *4.1. Strengths and limitations*

401 This study contributes valuable insights to explore the experiences of patients with colorectal  
402 cancer from diagnosis through post-surgical recovery. Data collection post-COVID-19  
403 pandemic provides further relevance, as it sheds light on the challenges faced by patients in a  
404 healthcare setting impacted by workforce constraints and limited access to care services.  
405 However, there are also limitations associated with this study, with the main one being the  
406 convenience sampling approach from a single centre which may have limited diversity within  
407 the sample, particularly with regard to ethnic background, reflecting the demographic  
408 composition of the local district where the study was conducted. Additionally, the use of  
409 virtual interviews required participants to have digital access, which may have excluded some  
410 patients, potentially narrowing the scope of findings. The first author's role as the  
411 participants' Clinical Nurse Specialist may have influenced responses, potentially introducing  
412 social desirability bias (Paulhus, 1984). However, this familiarity likely also facilitated

413 rapport and openness, which might have been more challenging with an unfamiliar  
414 researcher.

## 415 **5. Conclusion**

416 Findings of this study reinforce the importance of comprehensive and compassionate  
417 communication throughout the patient journey. Clinical nurse specialists and advanced nurse  
418 practitioners play a critical role in translating complex information into accessible terms,  
419 supporting patients' understanding and engagement. The study also highlights a growing  
420 awareness of lifestyle factors associated with colorectal cancer risk, which may have positive  
421 implications for public health. The study further highlights the role of family and friends as  
422 both sources of support and potential stress for patients; thus, clinicians should consider  
423 offering patients access to counselling and peer support groups. Future research would  
424 benefit from purposive sampling that captures a more representative cross-section of the  
425 patient population and from in-person interviews to include those without digital access.  
426 Given the increasing incidence of colorectal cancer among individuals under 50 years of age,  
427 further investigation is essential to address the unique concerns of this demographic. Drawing  
428 from patients' experiences remains crucial in enhancing care delivery, emphasising the need  
429 for further research to better inform patient-centred colorectal cancer care.

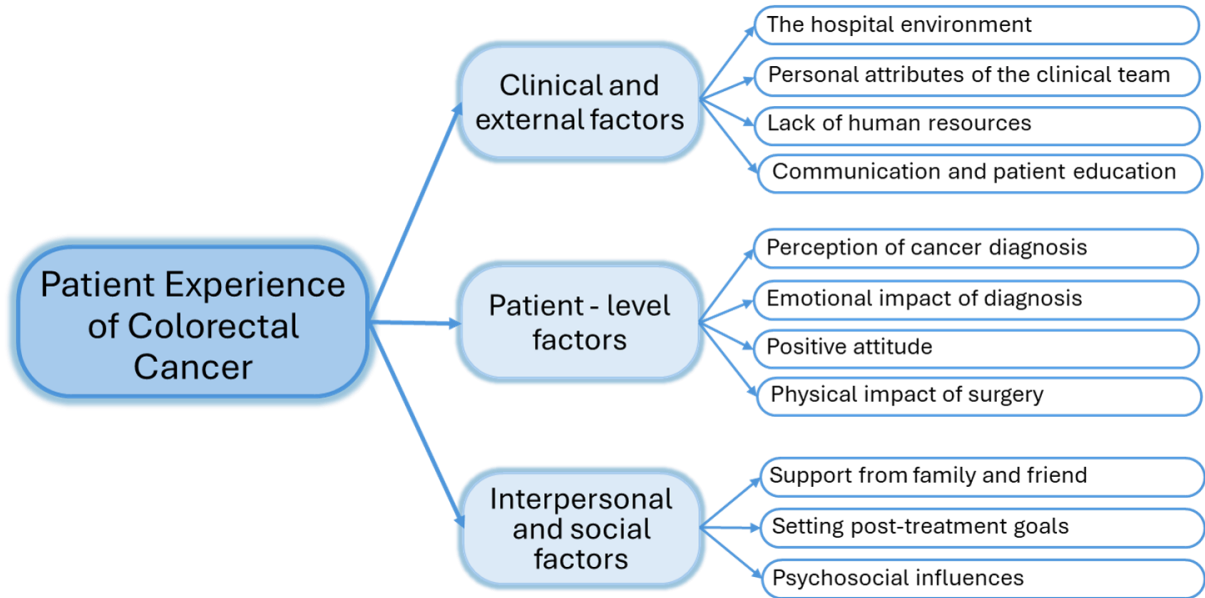
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432 **Figure 1:** Conceptual model of factors influencing patients' experience of colorectal cancer

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