



Depression levels in colorectal cancer remain high five years after surgery: findings from the ColoRECTal Wellbeing (CREW) study

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BACKGROUND

- The prevalence of depression is greater in people living with and beyond cancer (15%)^[1] compared to the UK general population (3%)^[2].
- Depression in people with colorectal cancer (CRC) is associated with quality of life (QoL) outcomes^[3] and recovery^[4].
- Few studies in CRC have explored depression in the long term^[5] and assessed risk factors before starting treatment.
- The UK ColoRECTal Wellbeing (CREW) study^[6] investigated the incidence and factors associated with clinical levels of depression in a CRC cohort up to 5-years following curative intent surgery.

METHODS

- CREW is a prospective, longitudinal cohort study of a representative sample of non-metastatic colorectal cancer patients undergoing curative intent surgery.
- All eligible patients attending 29 UK cancer centres during the recruitment period (Nov 2010 – March 2012) were invited to participate.
- Clinical, socio-demographic, physical & psychological symptoms & functioning, QoL, personal attributes & perceptions, social support & health service use were assessed at 8 time points (see Figs 1 & 2).
- Data were analysed using multivariate statistical techniques.

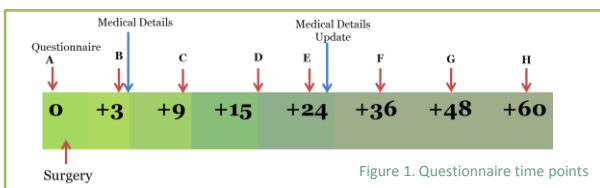


Figure 1. Questionnaire time points

RESULTS

CREW study participants

- Mean age at study entry 68 years; 60% male; 65% colon and 35% rectal cancer; Duke's stage: A 14%, B 53% and C 32% (see Foster et al 2016^[4]).

Incidence of depression over time

- Mean CES-D scores peaked at baseline (13.3) and steadily decreased to 10.4 five years after surgery.
- Over 21% of participants reported clinical levels of depression (CES-D_{≥20}) and this also reduces over time, however almost 15% of respondents continued to report clinical levels at five years (Fig 3).

Depression before surgery (baseline)

- Before surgery, significantly higher mean CES-D scores were observed in:
 - ☐ Females*
 - ☐ Younger age groups (<51 years old)*
 - ☐ Single/divorced/widowed domestic status*
 - ☐ People who were unemployed*
 - ☐ Living in temporary accommodation**
 - ☐ Living in areas with greater deprivation#
- Significantly higher proportions of participants reporting clinical levels of depression at baseline tended to be:
 - ☐ Female*
 - ☐ Single/divorced/widowed domestic status*
 - ☐ Living in temporary accommodation#

(N = 741; p values: *p<0.001, **p<0.005, #p<0.05)

Demographic	Psychosocial
• Age	Depression: Centre for Epidemiological Studies Depression Scale (CES-D)
• Gender	• Clinical cut-off used = ≥ 20 ^[7,8]
• Ethnicity	State anxiety: State-Trait Inventory, State scale (STAI-S)
• Domestic status	QoL: Quality of Life in Adult Cancer Survivors (QLACS)
• Employment status	Health status: EQ-5D
• Accommodation type	Wellbeing: Personal Wellbeing Index (PWI)
• Area deprivation	Social support: Medical Outcome Study Social Support Survey (MOS-SSS)
Clinical	Affect: Positive & Negative Affect Schedule (PANAS-SF)
• Tumour site & Duke's stage	Self-efficacy: Self-Efficacy for Managing Chronic Disease measure (SEMCD) and the Cancer-Survivors Self-Efficacy Scale (CS-SES)
• Type of treatment	Fear of Recurrence: Distress-Recurrence subscale in QLACS
• Comorbidities	
• Previous use of mental health services	

Figure 2. Selected CREW outcome measures

	Baseline	3mo	9mo	15mo	24mo	36mo	48mo	60mo
N	741	642	605	534	483	382	369	319
Mean CES-D (SD)	13.3 (9.0)	12.4 (8.9)	11.8 (9.2)	10.4 (9.0)	10.5 (8.8)	9.8 (8.2)	10.7 (8.4)	10.4 (9.5)
CES-D _{≥20} (%)	21.3%	19.3%	17.5%	13.1%	15.1%	12.8%	13.0%	14.7%

Figure 3. Natural course of depression over 5-years

Pre-surgery characteristics associated with clinical levels of depression over follow-up

- 519 participants completed the CES-D at baseline and at least one other follow-up:

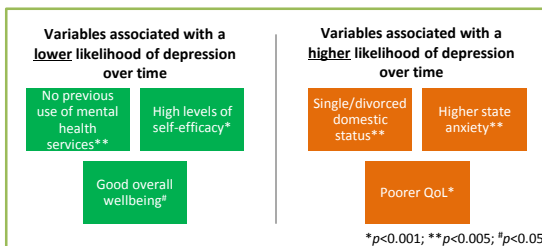


Figure 4. Pre-surgery characteristics sig. associated with a clinical level of depression (CES-D_{≥20}) over 5-years

CONCLUSIONS

At diagnosis and at time points up to 5 years after surgery, around 15% of people studied had clinical levels of depression. This is higher than the UK average and its sustained prevalence suggests that screening tools for depression should be introduced early in the care pathway, so patients can be quickly and suitably referred for appropriate early intervention.

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