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Background

- Numbers of people diagnosed with colorectal cancer in the UK is rising to a predicted 630,000 by 2040.
- Major surgery is the first line of treatment, but associated with high incidence of post-operative complications. Leading to increased post-operative morbidity, longer hospital stay and mortality ¹.
- Evidence suggests that pre-operative exercise can optimise patients' baseline physical condition and could mitigate post-operative complications ².
- Regular exercise can also reduce some of the physical and psychological symptoms reported by the cancer population³.
- However, many patients decrease their physical activity levels following cancer diagnosis, particularly, those with colorectal cancer.⁴
- To effectively implement pre-operative exercise, it is necessary to understand why patients drop their exercise levels following a cancer diagnosis and how health professionals could maximise their engagement.

Aims

The aim of this study was to evaluate attitudes towards pre-operative exercise in oncology patients who have recently undergone major elective colorectal surgery. Also to identify potential barriers and facilitators to engage with pre-operative exercise.

Methods

Design

Qualitative design with phenomenological approach.

Participants

A non-probabilistic *purposive* sampling method was employed to recruit ten patients diagnosed with colorectal cancer and undergoing major elective surgery.

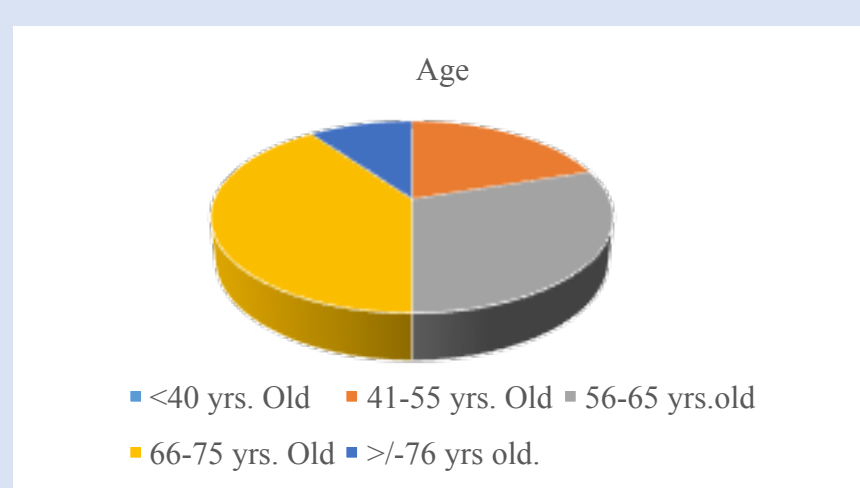


Figure 1. Age representation

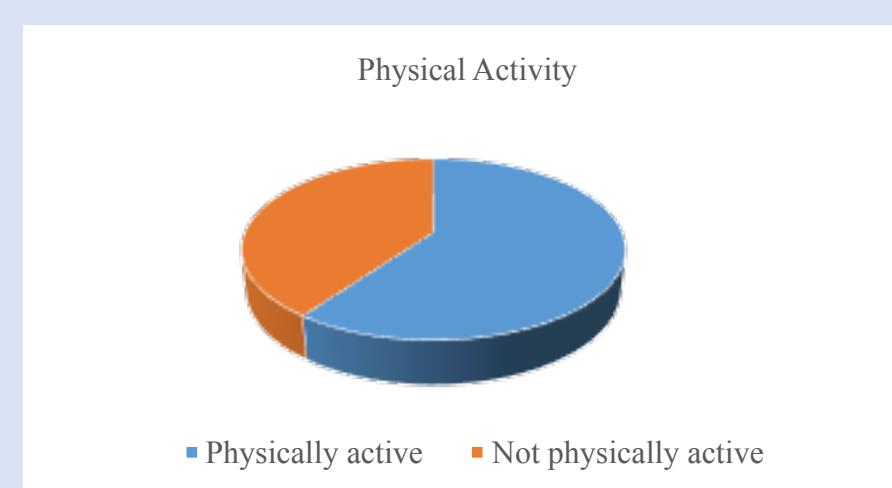


Figure 2. Physical Activity

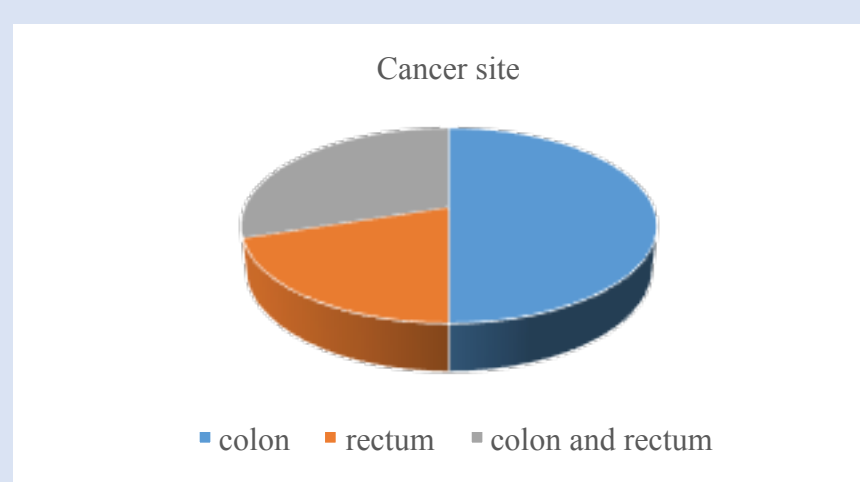


Figure 3. Cancer site

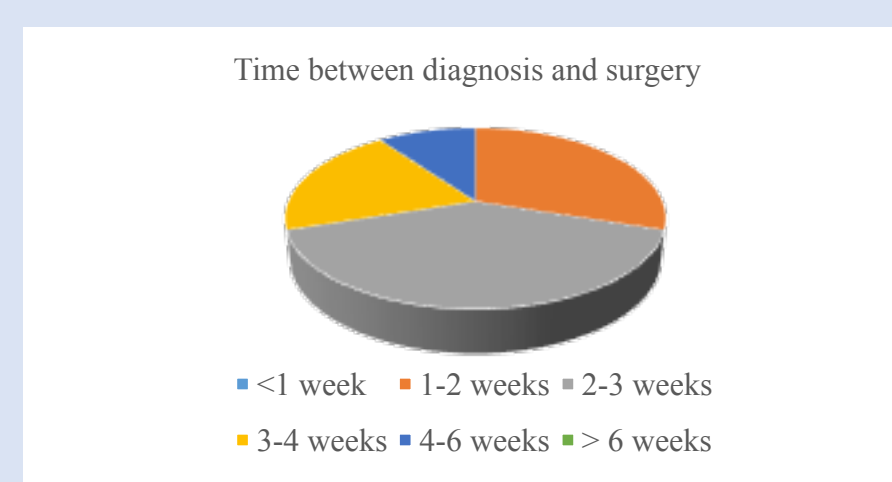


Figure 4. Time between diagnosis and surgery

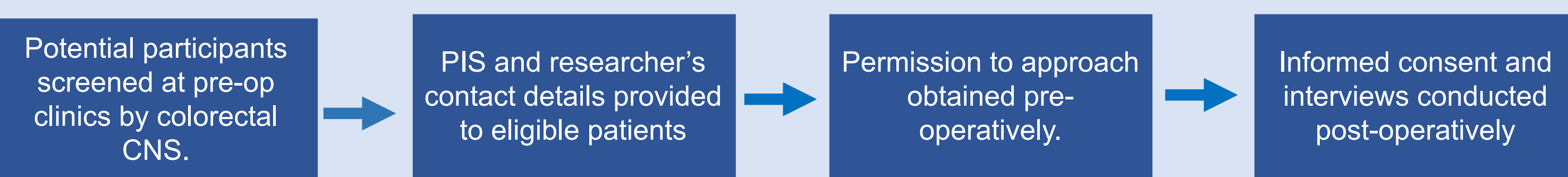


Figure 5. Recruitment Process.

Data Collection

Face-to-face, semi-structured interviews using a topic guide, which was developed on the basis of *Social Cognitive Theory*. Data collected during July 2016- January 2017.

Data Analysis

Thematic analysis of interview transcripts.

User involvement

A small group of patients who previously underwent surgery for breast and colorectal cancer, provided feedback on the research protocol.

Ethical approval

Favorable opinion given by Queens Square Health REC on 14th July 2016.

Findings

A number of themes emerged from the interviews.

Exercise Barriers	Exercise Motivators	Pre-operative exercise Facilitators
Cancer-related side effects	Previous experience of physical activity	Flexibility
Advice received	Enjoyment	Individuality
Fear	Perceived psychological benefits	Reassurance and safety
Lack of time	Social encouragement	Emphasise potential benefits
Current levels of physical activity	Impact of cancer diagnosis	Nature of the programme
Low priority	Perceived physical benefits	Presentation style

Table 1. Themes

"The thought of exercising prior to surgery did not cross my mind. I thought more in terms of sleeping rather than preparing myself for it"

"My main motivation to carry on exercising is because I enjoy it"

"A programme that is flexible as possible would be the best. They must say something like: 'if you only have 10 minutes today and if you are only at home, then do this...'"

Discussion

This study highlights the inter-related environmental, emotional and cognitive factors that affect exercise engagement when receiving a colorectal cancer diagnosis and awaiting surgery.

Implications for practice

- Symptomatic barriers to exercise do not usually appear in isolation, but in combination with others. Understanding the barriers as identified in this study would be of use.
- Emphasising the potential positive effect that exercise has on symptoms will increase motivation.
- Current information given focuses primarily on the surgery and the period after. The information contained should also include information related to pre-operative exercise.

Next steps

- A mixed methodology study combining a cross-sectional survey with focus groups comprising clinicians and nurses exploring the attitudes towards pre-operative exercise advice given to colorectal cancer patients.
- A RCT assessing the effectiveness of a pre-operative exercise programme on surgical outcomes following bowel cancer surgery. This will need to identify the key elements required of an effective exercise programme such as: the minimum duration, intensity and frequency required, as well as the optimum activities to achieve the desired results.

References

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2. Hogeboom, T. J., Dronkers, J. J., Hulzebos, E. H. J. & Meeteren, N. L. U. (2014) 'Merits of exercise therapy before and after major surgery' *Current Opinion Anaesthesiology* 27(2), pp.161-166.
3. Albrecht, T.A. and Taylor, A.G. (2012) 'Physical Activity in Patients With Advanced-Stage Cancer: A Systematic Review of the Literature' *Clinical Journal of Oncology Nursing* 16(3) pp.293-300.
4. Lynch, B. M., Owen, N., Hawkes, A. L. & Aitken, J. F.(2010) 'Perceived barriers to physical activity for colorectal cancer survivors' *Support Care Cancer* 18 (6), pp. 729-734. 008;57(4):660-680.