Original Article

Training Cancer Exercise Specialists in Patient-Centred Motivational Communication to Support Physical Activity Behaviour Change for People Living with Head and Neck Cancer

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Head and neck cancer encompasses a diverse range of malignancies affecting structures such as the larynx, oropharynx, oral cavity, nasopharynx, nose, and paranasal sinuses (Bhat et al., 2021). In the United Kingdom over 12,000 new cases of head and neck cancer are diagnosed annually (CRUK, 2023). Curative treatment for head and neck cancer typically involves surgery, radiotherapy, and chemotherapy, as singular or multi-modality treatments depending on the site and stage of the disease (Cramer et al., 2019). Both the disease and its treatment have short-term and chronic side-effects, such as difficulties swallowing, speaking, breathing, pain, fatigue, and alterations to appearance. These issues are associated with considerable negative psychosocial impact and poor quality of life (Doughty et al., 2023).

Low levels of physical activity among head and neck cancer patients can exacerbate treatment-related complications and further reduce their overall quality of life. Midgley and colleagues (2023a) found that two thirds of head and neck cancer survivors were insufficiently physically active to gain appreciable health benefits. Moreover, physical inactivity can lead to muscle wasting, decreased cardiovascular fitness, and impaired functional capacity (Platek et al., 2017), making it challenging for patients to regain strength and resume normal activities after treatment. Symptoms specific to the condition, such as dry mouth, difficulty swallowing, shoulder weakness and pain, and mouth drainage can hinder physical activity engagement among individuals with head and neck cancer (Midgley et al., 2018). Within the United Kingdom, physical activity is not part of the standard head and neck cancer treatment pathway and, therefore, patients have limited access to specialist support to help them safely and effectively engage in physical activity. Consequently, supporting people with head and neck cancer in overcoming barriers to engagement

in physical activity and finding enjoyable and feasible physical activities have the potential to improve health outcomes and quality of life during and after cancer treatment (Doughty et al., 2023).

Cancer exercise specialists are allied health professionals with a vocational qualification in designing and delivering exercise programmes for individuals with cancer. However, like other allied health professionals managing chronic conditions (Whittaker et al., 2022), cancer exercise specialists do not receive specialised training in behaviour change. This knowledge gap, therefore, limits their capacity to integrate behaviour change principles into their professional practice. Health psychologists can collaborate with cancer exercise specialists to promote behaviour change and optimise patients' adherence to exercise programmes. While there are established frameworks available to aid health psychologists educate health professionals on behaviour change interventions (Michie et al., 2014), there is currently no specific guidance tailored to assist health psychologists train cancer exercise specialists on behaviour change knowledge for people living with head and neck cancer. Developing tailored guidance for training cancer exercise specialists in behaviour change would facilitate collaboration with health psychologists, leading to more holistic care for head and neck cancer patients.

The present article aims to assist health psychologists in training cancer exercise specialists to promote behaviour change in physical activity among individuals living with head and neck cancer. Patients undergoing treatment for head and neck cancer frequently encounter physical and emotional challenges that can affect their motivation to engage in exercise (Doughty et al., 2023). We offer insights, therefore, into the design and practical application of behaviour change support in the form of a patient-centred motivational communication training programme, delivered to three cancer exercise specialists. Our training programme equips health psychologists to train cancer exercise specialists on effectively communicating with patients diagnosed with head and neck cancer, therefore aiding the adoption of a physically active lifestyle. In particular, the programme comprises of two workshops, each lasting 2 hours, with 100% attendance by the cancer exercise specialists. Both workshops were structured as interactive seminars and were conducted remotely via Microsoft Teams by the primary author. Additionally, cancer exercise specialists received a handbook containing the key content presented in each workshop. The handbook offered accessible information on understanding, promoting, and applying motivational communication in practice for head and neck cancer patients. Next, we will offer a descriptive overview of each workshop.

Workshop 1

The aim of the first workshop was to help cancer exercise instructors learn about the importance of supportive communication language drawing from self-determination theory (see table 1). Utilising theory is important for designing and tailoring training programmes for behaviour change (Dalgetty et al., 2019). There is now robust evidence supporting the utility of self-determination theory for promoting physical activity engagement (Ntoumanis et al., 2021). Therefore, we used self-determination theory to offer a theoretical framework through which cancer exercise specialists are equipped with fundamental knowledge of motivational mechanisms for changing physical activity behaviour. The self-determination approach posits that humans have three innate psychological needs that, when satisfied, contribute to intrinsic motivation and optimal functioning (Ryan & Deci, 2017). These needs are i) Autonomy: the need to experience a sense of choice, volition, and control over one's

actions and decisions; ii) Competence: the need to feel effective and capable in mastering challenges and achieving desired outcomes; and iii) Relatedness: the need to connect and feel socially connected to others, experiencing a sense of belonging and caring relationships. Findings demonstrate that an autonomy supportive communication style is beneficial for exercisers as it supports their basic psychological needs for autonomy, competence, and relatedness (Ntoumanis et al., 2017). This style can enhance the quality and longevity of exercisers' engagement in physical activities.

Motivational interviewing has emerged as a valuable framework for integrating the principles of self-determination theory into practice, as they both emphasise the importance of intrinsic motivation and creating autonomy-supportive environments to facilitate behaviour change (Deci & Ryan, 2012). Our patient-centred motivational communication training program, therefore, draws from motivational interviewing practice. Specifically, workshop 1 was additionally designed to train cancer exercise specialists on motivational interviewing skills, with specific emphasis on relational skills and content skills (see table 1). Relational skills focus on establishing trust, empathy, and rapport with the patients, forming the foundation for supportive patient-centred motivational communication (Miller & Rollnick, 2013). In contrast, content skills aim to guide conversations and explore ambivalence to elicit change talk to assist individuals in clarifying their motivations, values, and goals. Both the theoretical and practice components of workshop 1, were reinforced using presentation slides, video resources, and discussion-based exercises.

Workshop 2

The aim of the second workshop was to equip cancer exercise specialists with ways to implement content skills through decisional balance discussions, utilising assessment rulers, and encouraging individuals to express their motivations, desires, and commitment to change (see table 1). Using presentation slides, video material, role play and reflective activities the workshop helped the cancer exercise specialists hone their content skills and their relational skills to enable effective motivational communication with head and neck cancer patients.

The motivational interviewing approach provides valuable insights into each individual's unique needs and motivations. These insights can serve as a foundation for selecting appropriate behaviour change techniques that directly target personalised physical activity barriers and challenges. Consequently, our patient-centred motivational communication program incorporates behaviour change techniques within the motivational interviewing framework. Thus, workshop 2 also provided training for cancer exercise specialists to select behaviour change techniques tailored to meet the individual needs of head and neck cancer patients. To identify suitable behaviour change techniques, we used the Coventry, Aberdeen, and London-Refined (CALO-RE; Michie et al., 2011) taxonomy, which offers an evidence-based guide for classifying techniques used to change physical activity behaviour (see table 2). Through group discussion and practical activities, cancer exercise specialists were able to learn about applying behaviour change techniques into practice.

We believe that combining behaviour change techniques within the motivational interviewing approach has several advantages. First, motivational interviewing provides an understanding of the individual's readiness for change and unique circumstances, enabling cancer exercise specialists to select behaviour change techniques that align with the individual's preferences and needs. Personalised approaches of this nature can be more appealing and engaging, leading to better physical activity adherence and

sustained effort (Ghanvatker et al., 2019). Second, the integration of behaviour change techniques ensures that behaviour change strategies are collaboratively selected. As such, the collaborative process can enhance patient ownership of the change efforts, leading to increased commitment to achieve their goals. Finally, behaviour change often involves ambivalence and resistance (Rice et al., 2017), as individuals' grapple with conflicting feelings about changing their behaviour. Given that motivational interviewing is adept at addressing ambivalence, patients may become more open to utilising behaviour change techniques.

In conclusion, there is a lack of guidance for health psychologists to collaborate with cancer exercise specialists on behaviour change related to physical activity. Therefore, this article serves as a commentary aiming to assist health psychologists to support cancer exercise specialists in patient-centred motivational communication, with the goal of promoting exercise participation among individuals living with head and neck cancer. Underpinning the training were two substantive educational-based workshops that were theoretically orientated within the self-determination approach, utilised motivational interviewing skills and applied behaviour change techniques. Further research is required to evaluate the acceptability, feasibility and efficacy for embedding our training programme into the treatment pathway for people with head and neck cancer. In doing so, health psychologists have the potential to transfer behaviour change knowledge to exercise professionals who seek to encourage active lifestyles for people living with head and neck cancer.

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Table 1. Overview of Workshops

Workshop 1	
Objectives	**Topics Covered**
1. Expand CES understanding of exercise motivation for head and neck cancer patients from a SDT perspective.	Intrinsic vs extrinsic motivation and psychological needs status.
1. Explore how motivational styles derived from SDT can support or thwart head and neck cancer patients exercise motivation.	Autonomy supportive vs controlling motivating styles and associated behavioural consequences.
1. Enhance CES communication knowledge by drawing from motivational interviewing skills.	MI skills for promoting autonomy supportive communication. Including relational (e.g., OARS) and content skills (e.g., change talk).
Workshop 2	
1. Support CES to deliver motivational interviewing skills when communicating with head and neck cancer patients.	Implement relational and content skills into patient consultations (e.g., reflection strategies, decisional balance and assessment rulers).
1. Prepare CES to integrate behaviour change techniques into MI conversations with head and neck cancer patients.	Identify and apply behaviour change techniques in an autonomy supportive manner that is in keeping with the MI approach.

Note: CES: Cancer Exercise Specialist; SDT: Self-Determination Theory; OARS: Open Questions, Affirmations, Reflective Listening, Summaries; MI: Motivational Interviewing

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Table 2. Examples of CALO-RE behaviour change techniques with descriptions.

CALO-RE Taxonomy	Description	Example
Goal setting	Collaborative goal setting	Engaging the patient in setting specific, measurable, achievable, relevant, and time-bound goals, aligning with their values and motivations.
Feedback	Providing personalised feedback	Offering feedback on the patient's current physical activity efforts and progress towards their goals, highlighting areas for improvement and celebrating successes.
Barrier Identification	Identifying barriers to physical activity	Exploring and acknowledging barriers or challenges that may hinder the patient's exercise engagement, and strategizing ways to overcome them.
Action planning	Developing an action plan	Assisting the patient in creating detailed plans for implementing and maintaining exercise routines.
Prompt self-monitoring	Encourage tracking of exercise and progress	Suggest keeping an exercise journal or using a fitness app.
Time management	Manage time effectively to incorporate physical activity	Discuss ways to fit exercise into the patient's daily schedule.
Information about consequences	Educate on the benefits of regular exercise	Provide information on how exercise can improve health and well-being.
Demonstrate behaviour	Model physical activity	Showing how to perform physical activity tasks.

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