

ABSTRACT

Physical exercise is an effective intervention for cancer survivors, reducing fatigue, depression, co-morbidities, treatment toxicity, and mortality. However, there is limited evidence in head and neck cancer (HNC), which has multiple unique challenges.

Aim: To investigate the feasibility and acceptability of a remotely delivered, personalised and flexible exercise programme into the care pathway.

Methods

This prospective single arm study aimed to recruit seventy HNC patients from two UK Centres, over 12 months. The intervention was a personalised 8-week exercise programme delivered remotely by cancer exercise specialists, trained in behaviour change techniques. Patients were invited to participate any time between diagnosis and 8-weeks post-treatment. Intervention content was based on patient preferences and goals, guided by cancer-exercise guidelines. Primary outcomes were recruitment and retention. A qualitative sub-study included patient and staff semi-structured interviews to evaluate experiences and processes.

Results

In total 107 patients were approached, 76 consented (71%). Twenty % declined participation. Participants M:F ratio 3:1; mean age 60.5 years (range 34-80). The majority had oropharyngeal (54%) or oral cancer (33%). Treatment included single (28.8%) and multi-modality (71.2%). Twenty-nine patients (38%) withdrew. Main reasons were medical (n=12) and poor engagement (n=12). Patient interviews found the flexible, personalised approach valuable. Those who did not self-identify as 'exercisers' found it more difficult to understand. Staff highlighted the need for more education regarding the benefits of exercise and its 'fit' with HNC pathway to aid implementation and explanation of the intervention.

Conclusion

This high uptake indicates the intervention was feasible and acceptable to HNC patients. Patients appreciated a strong therapeutic bond and tailoring of the intervention to their needs and preferences. Strategies are needed to increase retention. Further investigation to test effectiveness and fit with the pathway is warranted.

INTRODUCTION

Exercise has many proven benefits for cancer survivorship; however head and neck cancer (HNC) patients are severely underrepresented in this research. Symptoms, such as pain and depression, are common to all cancer groups but tend to be higher in HNC. Unique HNC symptoms e.g. altered airway, head and neck lymphoedema, severe dry mouth, and swallowing problems with some being tube-fed, pose substantial barriers to exercise.

There has been low uptake of generic cancer exercise programmes in HNC. A personalised, collaborative, and flexible patient-centred approach, delivered remotely may better serve their needs.

Aim: To investigate the feasibility and acceptability of this approach in the HNC care pathway.

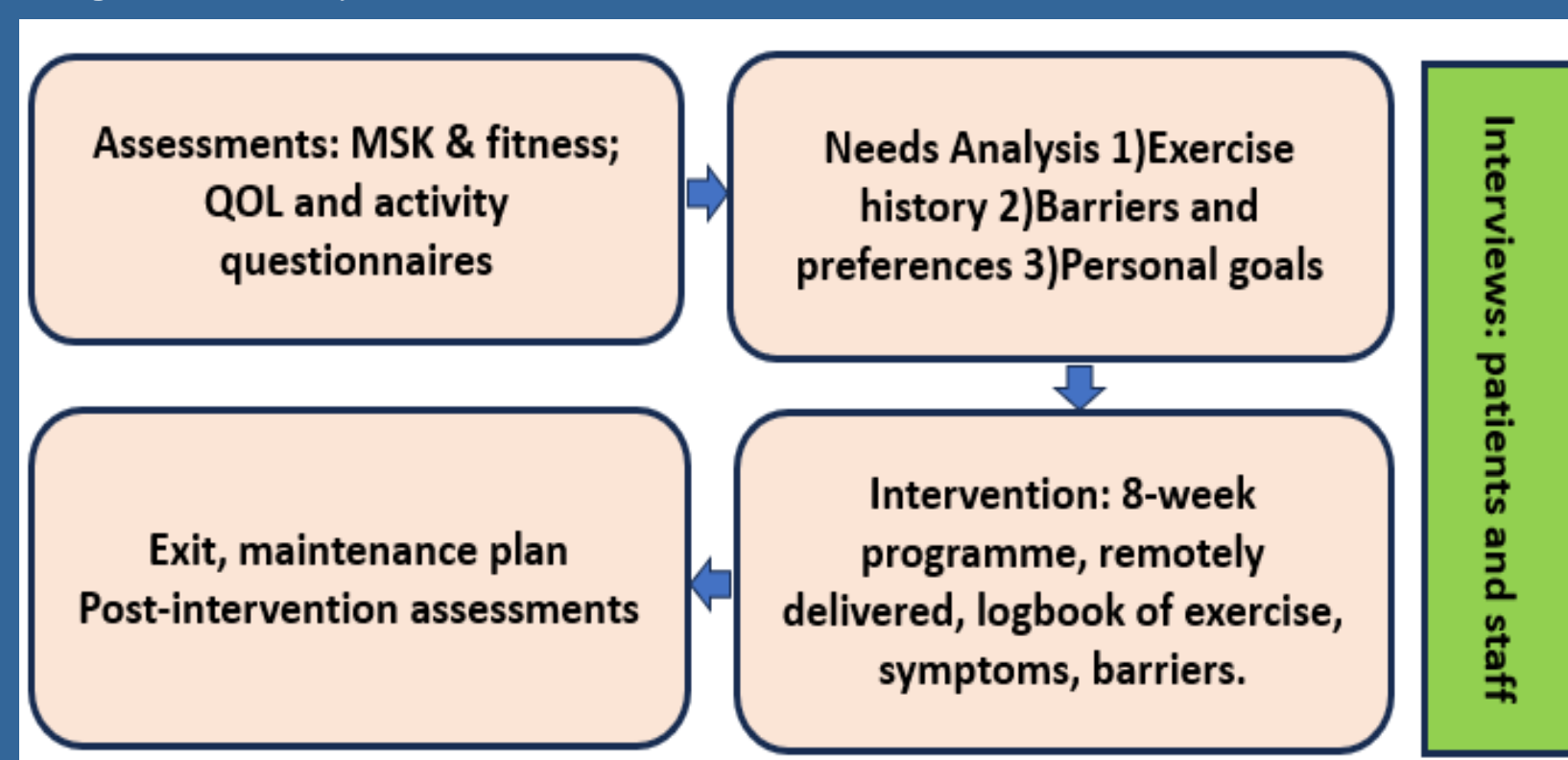
Objectives determine:

1. Eligibility, uptake, retention, and adherence.
2. HNC patients' and staff views on acceptability, intervention components, processes, and pathway integration.
3. Frequency and timing of the start of the exercise programme.

METHODS AND MATERIALS

This two-centre, single arm, mixed-methods study, aimed to recruit 70 patients, to retain a minimum of 42 patients, over a one-year period. The intervention is summarised in Figure 1. Cancer Exercise Specialists (CES) delivered a needs analysis and the intervention remotely. They were supervised by an Exercise Physiologist. Eligibility, recruitment and retention rates were calculated. Qualitative analysis for patient and staff interviews used constant comparative and interpretive reflexive thematic analysis. The protocol is published (1).

Figure 1. Summary of assessment and intervention.

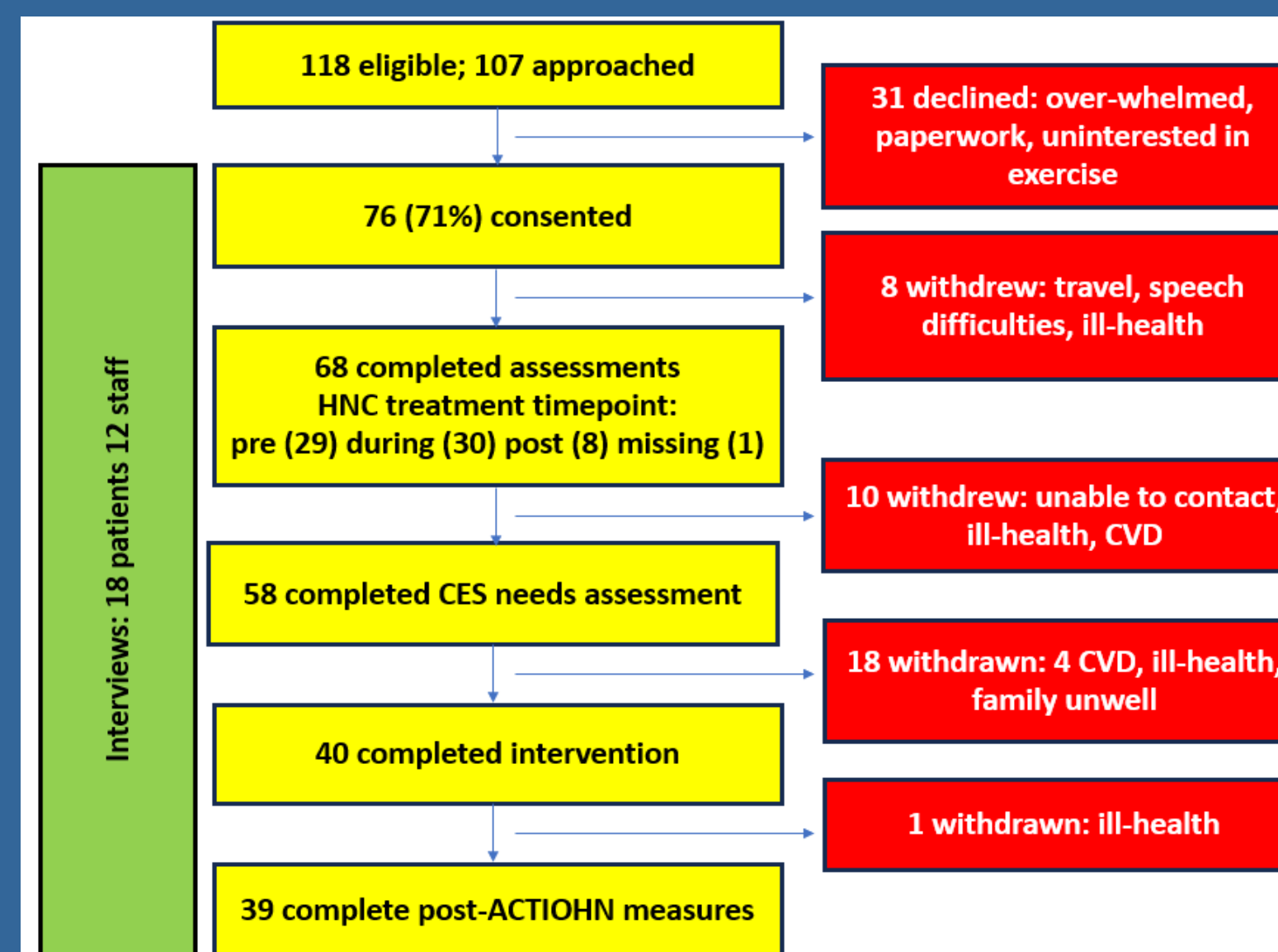


RESULTS

Eligibility, recruitment and retention rates are summarized in Figure 2, illustrating reasons for withdrawals and drop-outs. 98% of patients screened were eligible for the study. The majority (43%) were recruited prior to their treatment. Three quarters were male (76.5%). Just over a half had oropharyngeal cancer.

Of those that completed, 7 missed one session, 1 missed 5 sessions and 1 missed their exit meeting. Preliminary analysis of the sessions showed 92.9% of them were completed. Three quarters of sessions were completed as prescribed.

Figure 2. Summary of recruitment and retention.



Interviews showed that some (particularly those who were inactive), found the programme and personalisation initially hard to understand. Once enrolled, patients valued its flexible, tailored nature. Communication between staff and patients was integral to continued engagement, particularly for patients whose coherence of the programme was poor. Patients benefitted in many ways; they enjoyed having an alternative focus, saw tangible changes in their fitness levels, their mood and motivation. Most reported a desire to continue with activity post-programme. Staff reported divergent views regarding the appropriateness and value of activity for HNC patients and highlighted the need for more education regarding its benefit and 'fit' with HNC treatment to aid implementation.

DISCUSSION

Results showed an excellent uptake for eligible patients, exceeding expectation. Only a small number of patients were missed at recruitment clinics. Published enrolment rates range from 36-72%. Our retention rate was a fraction lower than planned, although our target of 40 patients was achieved. Other studies have reported attrition rates of between 12-65% (2). Withdrawal due to ill-health was common. Qualitative data suggests that even for those patients that remained on the programme, exercise engagement was challenging during cancer treatment. Treatment side-effects are a substantial barrier. Adherence to personalised programmes was high. Many reported valuing a tailored approach and regular support from their CES. However, patients and staff could be better informed regarding the benefits of physical exercise following a HNC diagnosis. ACTIOHN achieved a reflective sample of the HNC demographic. However, there was low representation from ethnic minority groups. A full understanding of attrition was compounded by fewer interviews with decliners and non-completers. However, the key components of a physical exercise intervention were identified.

CONCLUSIONS

This is a feasible and acceptable intervention, but some adjustments are required, to improve acceptability, recruitment processes, retention and adherence. Patients largely valued a personalised approach, delivered remotely.

Overall, patients were positive about the programme, for both their physical and mental well-being. Further research is required to evaluate short and long-term effectiveness and cost-effectiveness of, and patient engagement with, personalised exercise for HNC survivors.

REFERENCES

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2. Avancini, A., Borsati, A., et al. Effect of exercise across the head and neck cancer continuum: a systematic review of randomized controlled trials. Support Care Cancer 31, 670 (2023).