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Lay Summary

Effect of a digital lifestyle intervention on health-related quality of life in patients with non-small cell lung cancer (NSCLC) after rehabilitation

Research management

1. Main applicant:

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2. Co-applicants:

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3. Partner institutions involved in the research project

The project was conducted in collaboration with University of Zurich (Epidemiology, Biostatistics and Prevention Institute), Berner Rehazentrum BRZ, Klinik Barmelweid, Klinik Valens.

Short title

Digital lifestyle intervention to improve quality of life

Synopsis

A new digital programme, delivered through a smartphone app, was implemented to help lung cancer survivors build healthier habits and feel better. The programme, a so-called lifestyle intervention, focused on physical activity, nutrition, and breathing/relaxation.



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Project description

- **Context / background**

Lung cancer is one of the leading causes of cancer deaths. Even after treatment, many survivors continue to struggle with symptoms like fatigue, reduced fitness, and lower quality of life. Research has shown that healthy habits – such as regular physical activity, healthy nutrition, and stress management – can improve health, quality of life, and even survival. However, many people find it difficult to follow a healthy lifestyle on their own, without guidance or structure.

- **Objectives**

With this study, we examined whether a new digital programme, delivered through a smartphone app, could help lung cancer survivors build healthier habits and feel better. We conducted the study in Switzerland with people who had recently completed treatment or rehabilitation. Participants were randomly assigned to either a 12-week app-based programme (focused on physical activity, nutrition, and breathing/relaxation) or standard care without the programme.

- **Results**

We enrolled 20 participants. After three months, both groups reported better overall quality of life. Participants who used the app improved their physical fitness more than those in standard care, as measured by a simple fitness test. They also reported more consistent increases in physical activity. Other outcomes, such as fatigue, appetite, or psychological well-being, did not differ between groups. Importantly, participants rated the app as easy to use, appropriate, and helpful.

- **Outlook**

Because only a small number of people took part, these findings are preliminary. They provide useful insights but are not strong enough on their own to prove the programme works. However, this was the first trial to examine a digital lifestyle program specifically for lung cancer survivors. Our results suggest that such programmes are feasible, may improve physical fitness, and can offer structure and guidance for maintaining healthy habits. Larger studies are now needed to confirm these findings.

