

IS HEALTH-RELATED FITNESS IN PRIMARY SCHOOL LINKED TO MENTAL DIFFICULTIES SIX YEARS LATER?

Tanja Mäntylä, Mikko Huhtiniemi and Timo Jaakkola
Faculty of Sport and Health Sciences, University of Jyväskylä, FIN

Introduction

Good mental health enables individuals to overcome challenges in life, participate effectively in working and learning, recognize their capabilities, and promote community well-being (WHO 2022). Mental difficulties are negative indicators of mental health. The previous research has suggested that health-related fitness has small to medium-sized positive associations with mental health in youth (Cadenas-Sanches et al. 2021) and it's also one of the health indicators in people's lives (Bouchard & Shepard 1994). However, longitudinal research is still lacking. In this study, health-related fitness refers to cardiorespiratory fitness and muscular fitness.

- Here, we investigated the relationship between health-related fitness measured in childhood and mental difficulties six years later.

Data and measurement

Measurements were collected in 2017 and 2023 from participants in four of Finland's five districts and participation was based on voluntariness. The study sample consisted of 264 participants (54,2 % girls). Pearson's correlation coefficients and linear regression models were used to analyse the data.

Results

There was a statistically significant association between cardiorespiratory fitness and mental difficulties ($r=-0.161, p<0.01$). The linear regression model was statistically significant ($F=3.312, p<0.05$) and explained 3,7 % of the total variance in mental difficulties. Results demonstrated that cardiorespiratory fitness measured in elementary school ($\beta = -0.074, p < 0.01$) had a statistically significant negative association with mental difficulties measured six years later. There were no associations between push-up ($\beta=0.065, p=0.103$) or curl-up ($\beta=-0.011, p=0.592$) test scores and mental difficulties.

Conclusion

In this study, the findings align with current knowledge regarding the inverse association between cardiorespiratory fitness and mental difficulties, but muscular fitness was not associated with mental difficulties.

- Promoting health-related fitness may be an effective strategy to increase mental health among adolescents.
- Enhancing cardiorespiratory fitness may reduce mental difficulties.
- More intervention and longitudinal studies are needed especially for muscular fitness and mental health.

References

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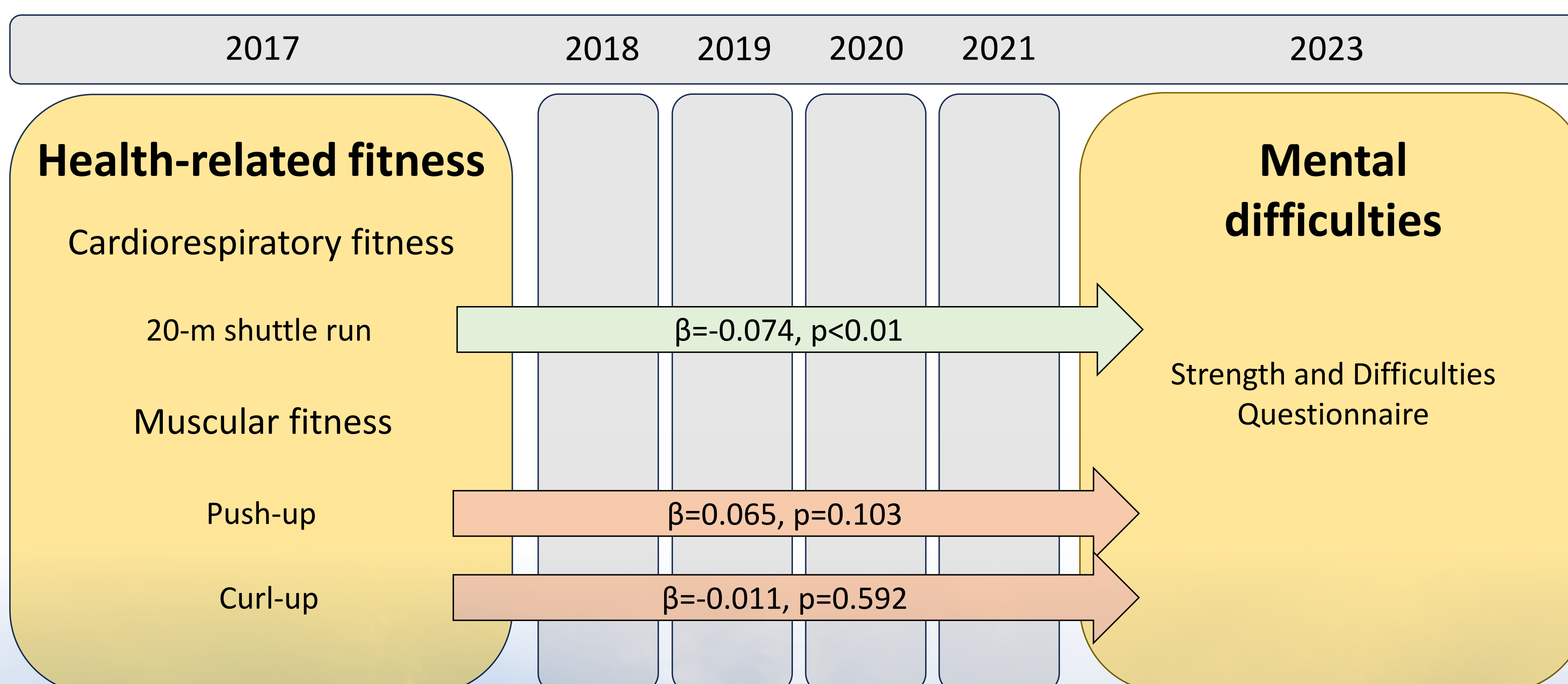


Figure 1. The linear regression model

