Physical activity beliefs and behaviours of phase IV community–based cardiac rehabilitation programme 'HeartSmart' participants – a cross sectional study.

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Introduction

An estimated 84 million individuals will be diagnosed with cardiovascular disease (CVD) by the year 2030 (Pesah *et al.* 2017). CVD has remained as the leading cause of death for the last 15 years. However, studies have shown that in high-income countries, like Ireland, people's survival rates after a cardiac related event (CRE) have exponentially increased (Yusuf *et al.* 2014). Despite major advances in treatment (Shah *et al.* 2018), prevention of a secondary CRE and avoidance of disabilities related to the initial CRE still remains a challenge (Fuster and Kelly 2010).

Phase IV focuses on long-term PA participation and upkeep of lifestyle changes within a community settingAlthough there is robust evidence establishing the benefits of CR (McMahon et al. 2017) and despite clinical practice guidelines recommending the referral of patients to CR (Price et al. 2016), phase IV community-based CR programs are highly unavailable and under-utilized (Pesah et al. 2017).

The aim of this study is to establish an understanding of HeartSmart participants' PA attitudes and behaviours, their self-reported PA levels and to identify what participants perceive their personal, interpersonal and environmental influences on PA. This is the first study to investigate these attributes of MedEx UL HeartSmart participants. This study also seeks to gather this important information in order to inform and facilitate the development of the service.

1.Establish participants' PA beliefs, sociodemographic information and self-reported PA levels using the data collected from MedEx UL participants' questionnaires at baseline.
2.Using existing data regarding what influences CR participants' participation in PA – identify those most applicable to MedEx UL participants.
3.Generate recommendations based on the findings of the study for the MedEx UL team in order to aid the development of the service.
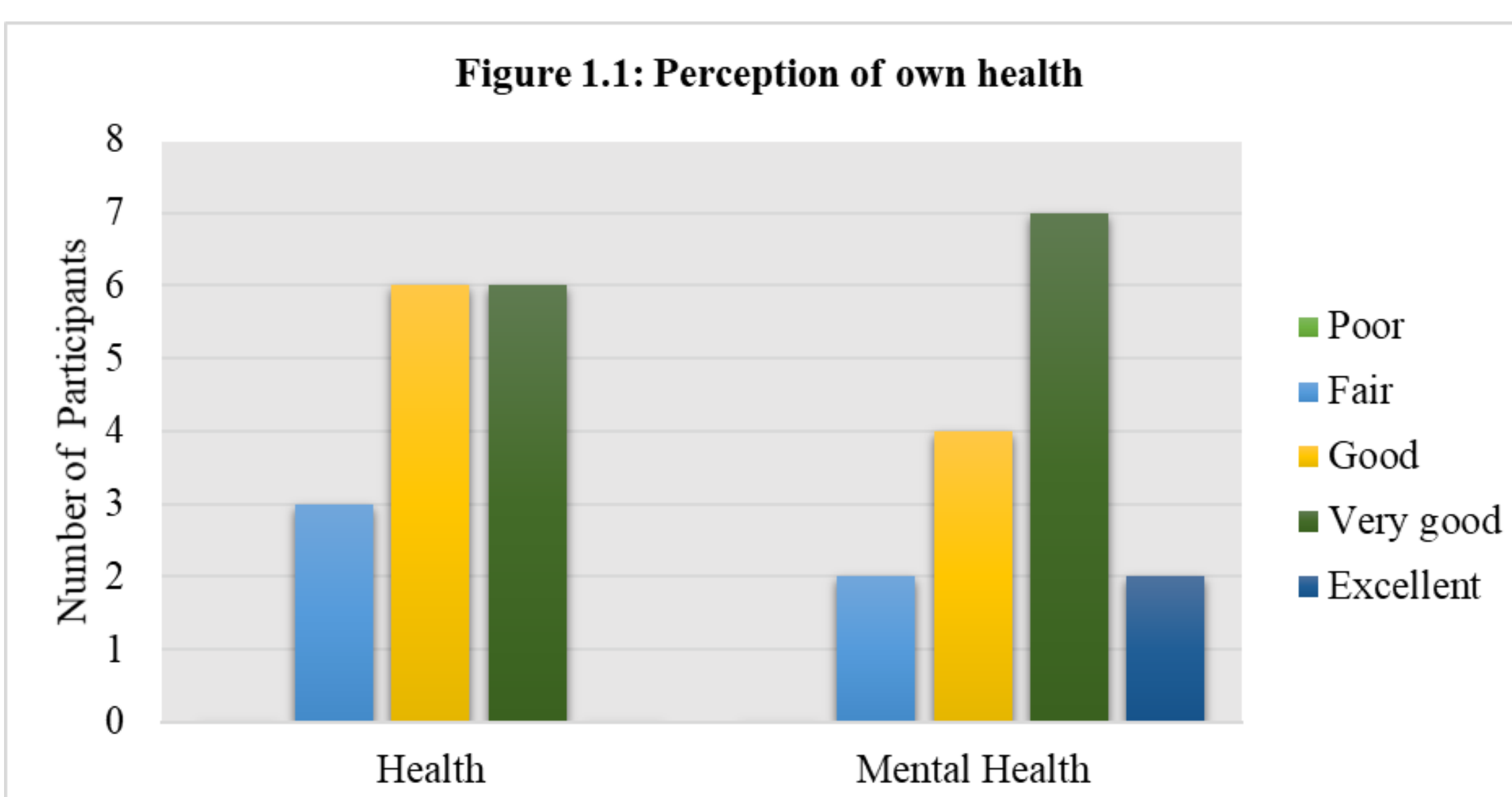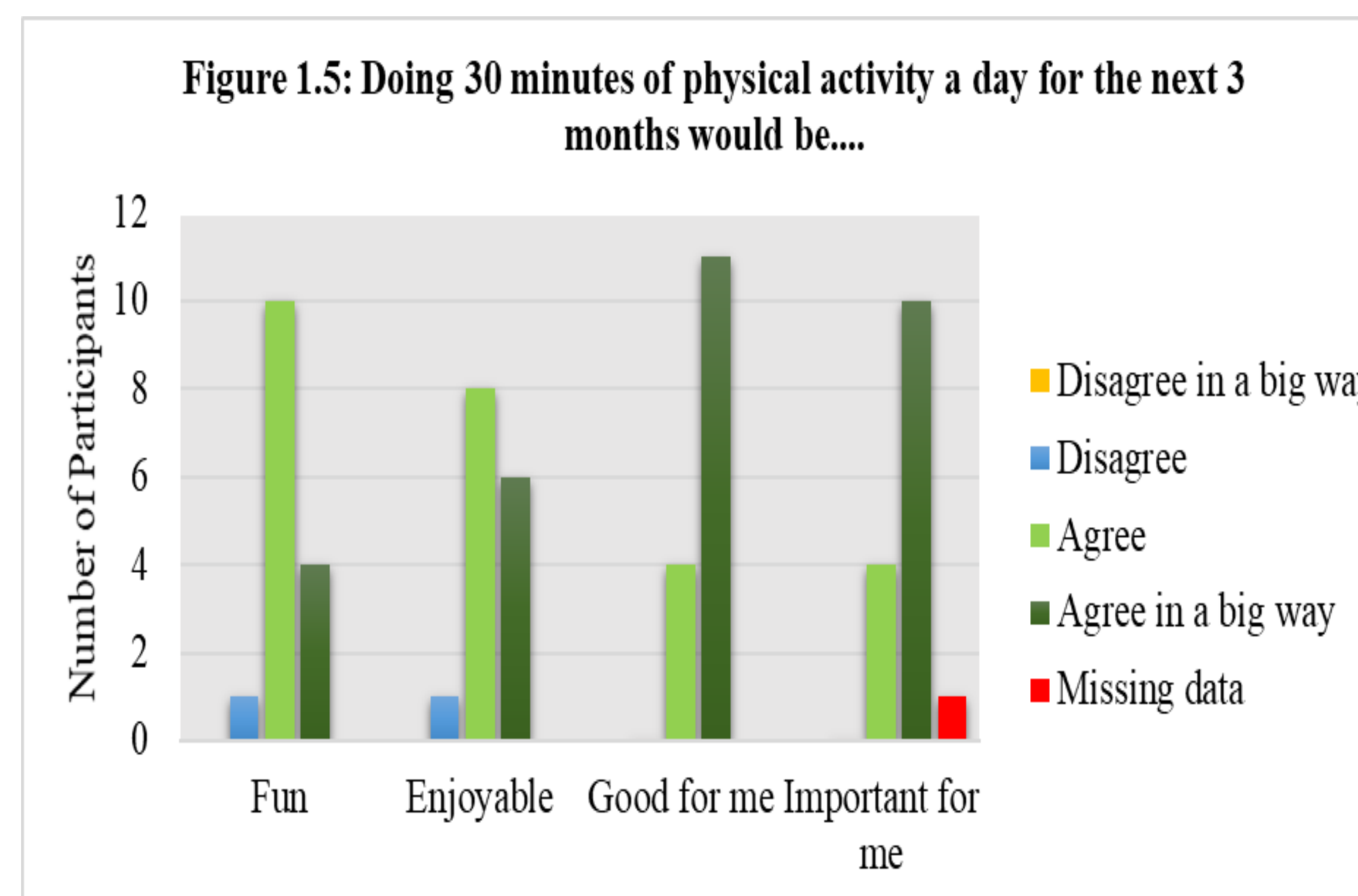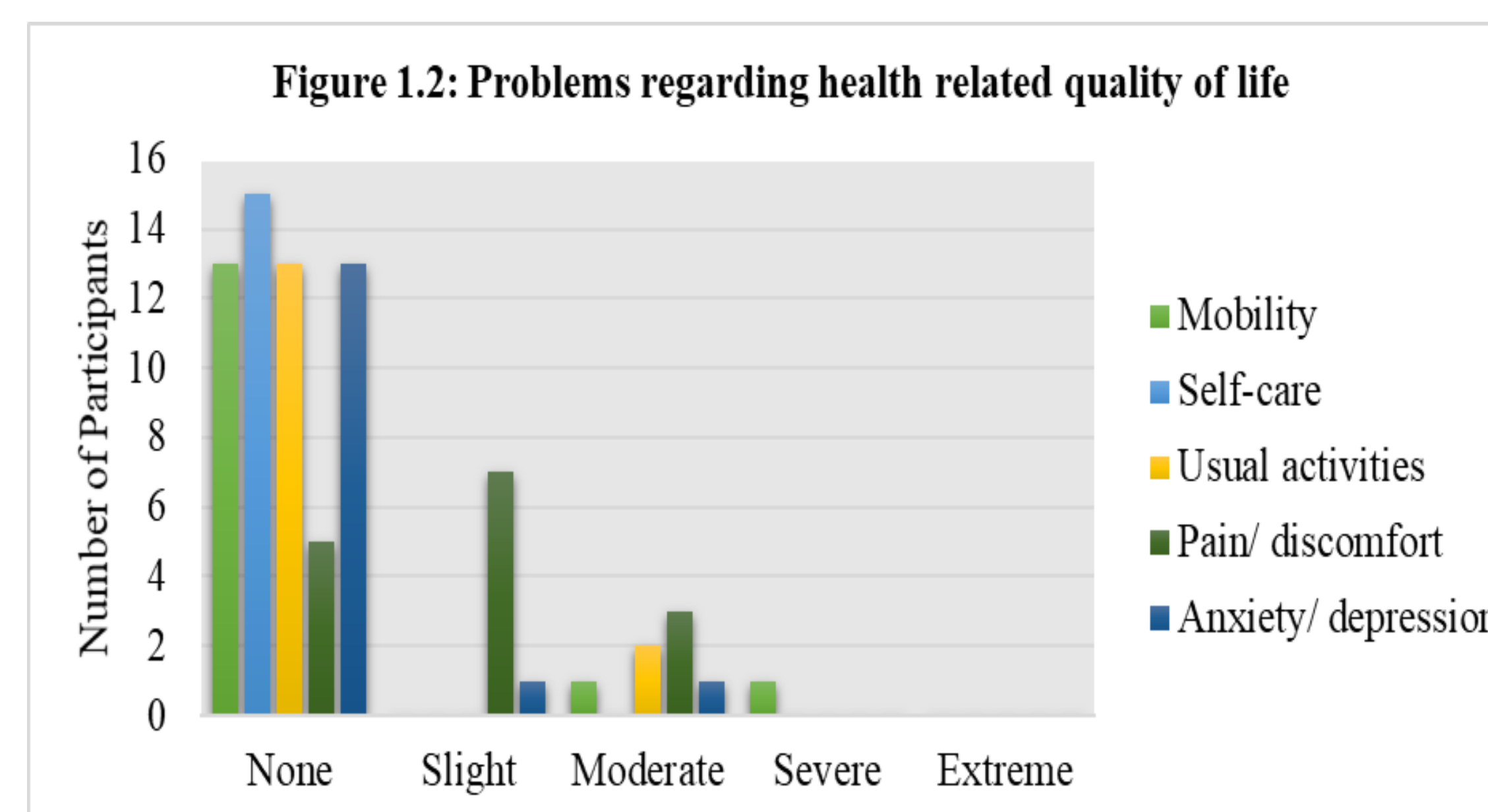
Methods

Study Design: A cross-sectional design was used to investigate the variables of interest, as only baseline data was analysed. The STROBE Checklist for cross-sectional studies was used to guide the reporting of this study (von Elm *et al.* 2014). Participants' baseline data was established using a range of physical outcome measures and the completion of the Move for Life Questionnaire (MFLQ). The study was conducted in the UL Sports arena.

Data Sources/Measurement: The MFLQ is a questionnaire developed by academics from various backgrounds including physiotherapy, sports science and medicine. The MFLQ was designed to capture participants' demographic information, health service usage, co-morbidities and their self-perceived PA; attitudes, behaviours, and participation, however it has not been validated amongst any population.

Data Analysis: Data analysis was conducted using SPSS statistical analysis software (version 26.0). Quantitative analysis was performed on all the collected data. Basic descriptive statistics were used to analyse the quantitative responses while both relative and absolute frequencies were used to analyse the Likert-type responses. Both descriptive and inferential statistics were used to analyse section D of the MFLQ, where participants recalled their PA participation from the previous 7 days.

Results

Figure 1.2: Problems regarding health related quality of life

Figure 1.5: Doing 30 minutes of physical activity a day for the next 3 months would be....

Figure 1.1: Perception of own health

Patient demographics	
	% (N)
Gender	
Male	73.3 (11)
Female	26.7 (4)
Age	
<65	20.0 (3)
≥65	80.0 (12)

Conclusion

The PA beliefs and characteristics of phase IV community-based CR should be established in order to tailor exercised-based CR programmes to the participant's needs. High-risk participants for poorer outcomes should be identified and strategies implemented to aid these groups, however research efforts specific to this should be increased in order to identify the reasoning for these poorer outcomes. Phase IV community-based CR participants are currently reaching PA recommendations – strategies should be implemented to continue promotion of PA in this population.

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