Background: Physical activity is associated with a variety of physical and psychosocial health benefits, but levels of moderate-to-vigorous intensity physical activity remain low worldwide. The application of virtual reality (VR) gaming systems involving movement (VR exergames) to promote physical activity is a promising avenue for engaging people in more physical activity. The aim of this study was to synthesise public reviews of popular VR exergames to identify common features that players like or disliked in order to inform future VR exergame design.

Methods: We conducted a thematic analysis of 465 reviews of the 31 most popular exergames sold in the top three VR marketplaces, Steam, Viveport and Oculus. We identified the most common themes using thematic analysis.

Results: The reviews were mixed, reporting a great variety of expectations, preferences and gaming experiences. Players preferred games that were highly realistic (e.g. closely simulate real-world sport), intuitive (in terms of the body movement and controls), and games that provided step-by-step increases in skill acquisition. Music was reported as greatly enhancing the experience. Favoured were social aspects with multiplayer options for company with friends or help from experienced players. Reviewers consistently reported that they felt VR exergaming was providing a high level of exertion equivalent to real world exercise, and the immersion/enjoyment was a welcome distraction from the exertion. There were three themes in negative reviews: the first was around bugs that rendered games frustrating. The quality of graphics had a particularly strong impact on perceived enjoyment. Reviewers disliking when games had overly complex controls and display functions that evoke motion sickness.

Conclusions: VR exergames prove a stimulating way to engage in physical activity and a way to distract from negative perceptions of performing exercise. Future research calls for designing games that will stimulate the players in a realistic, intuitive, gradual step-wise way while meeting players’ needs.