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Monitoring Mental Health in Esports: Requirement Analysis and Design Concepts of an mHealth Application

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> **Abstract.** Esports athletes face significant mental health challenges, often due to inadequate support. This paper presents the *MindAthlete* mHealth application designed to monitor the mental health of esports athletes. A qualitative study with experts in (sport) psychology identified key features such as mood tracking, stress monitoring, and risk screening. Based on their input, a prototype was developed.

Keywords. Mental Health, mHealth, Esports, Requirements Analysis, Gamification

1. Introduction

Esports involves competitive video gaming, with athletes facing similar stressors as in traditional sports, such as performance pressure and public exposure [1]. However, mental health support is often inadequate [2]. Mobile health (mHealth) applications, such as *MindAthlete*, could offer an effective solution for monitoring related issues [3]. This paper identifies essential features through expert interviews with psychologists working in esports. Based on these insights, the *MindAthlete* prototype was developed.

2. Methods

Seven experts from (sport) psychology, experienced in working with esports athletes, were recruited using snowball sampling. They were interviewed to discuss current monitoring practices and identify essential features for *MindAthlete*. Eight features were presented, which the experts ranked based on their perceived importance using a point-based system (eight points for the highest-ranked, seven for the second, ...). These features, along with additional feedback, informed the design of the *MindAthlete* prototype. Data

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analysis involved both deductive and inductive content analysis, following Mayring's approach [4]. The study was approved by the Joint Ethics Committee of the Universities of Applied Sciences of Bavaria (GEHBa) under vote GEHBa-202403-V-170.

3. Results

All experts agreed on the importance of tracking mental health in esports athletes. Current methods include standardized questionnaires, informal check-ins, and passive observations, but experts emphasized the need for more efficient and engaging monitoring tools. The features selected for the *MindAthlete* application, in order of priority, were: mood tracker (48 points), stress tracker (43), dashboard (27), sport psychology questionnaires (21), stress relief techniques (20), mental health risk screening (19), weekly check-in (13), and help-seeking options (11). These eight features, along with gamification elements to improve engagement, were incorporated into the Figma prototype of *MindAthlete*. A sky lantern theme was chosen to symbolize the freeing feeling of letting go, while the application is designed entirely in Dark Mode to reduce the clinical feel, according to expert feedback.

4. Discussion

Experts criticized current approaches and advocated for comprehensive assessment metrics, particularly focusing on early detection of mood fluctuations and behavioral changes. This aligns with the understanding that mental health issues often manifest subtly before becoming more severe [5]. Tracking features and dashboards were also seen as crucial for effective mental health management. By providing self-assessment questionnaires and continuous monitoring, *MindAthlete* could effectively address these needs.

5. Conclusion

This study defined essential features for *MindAthlete*, a mental health monitoring application for esports athletes, with expert evaluations supporting its design. Future steps will involve testing with esports athletes and exploring its applicability to other sports.

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