

Effects of game-based university mentoring on motivation for self-care in overweight high school students: a systematic review

Efectos de la mentoría universitaria basada en el juego sobre la motivación hacia el autocuidado en estudiantes de bachillerato con sobrepeso: una revisión sistemática

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Abstract

Overweight and obesity among high school students represent a significant public health problem in Mexico, where more than 40% of adolescents are affected by these conditions. During this stage, increased autonomy in food choices and decreased physical activity contribute to weight gain; therefore, the development of self-care habits depends largely on personal motivation rather than mere access to information. In this context, peer university mentoring and game-based educational strategies have emerged as innovative alternatives to strengthen student engagement and active participation. The objective of this study was to systematically review the scientific literature on the effectiveness of game-based university mentoring in promoting motivation for self-care among overweight high school students, compared with other educational support strategies. A systematic literature review was conducted in accordance with PRISMA guidelines, using international databases and key terms related to obesity, games, mentoring, and personal motivation. The results showed that gamification had a positive effect on motivation toward physical activity, with competitive components being the most effective (85%), followed by social support (75%) and group collaboration (70%). These findings suggest that game-based university mentoring is a promising strategy for fostering self-care habits and healthy lifestyles in adolescents; however, further research is needed to define the optimal conditions for its implementation in the school setting.

Keywords: university mentoring; educational gamification; self-care; overweight and obesity; adolescent motivation

Resumen

El sobrepeso y la obesidad en estudiantes de bachillerato representan un problema de salud pública relevante en México, donde más del 40 % de los adolescentes presentan estas condiciones. Durante esta etapa, el incremento en la autonomía para la elección de alimentos y la disminución de la actividad física favorecen el aumento de peso, por lo que el desarrollo de hábitos de autocuidado depende en gran medida de la motivación personal más que del acceso a información. En este contexto, la mentoría universitaria entre pares y las estrategias educativas basadas en el juego han surgido como alternativas innovadoras para fortalecer el compromiso y la participación activa de los estudiantes. El objetivo de este estudio fue revisar sistemáticamente la literatura científica sobre la efectividad de la mentoría universitaria basada en el juego para promover la motivación hacia el autocuidado en estudiantes de bachillerato con sobrepeso, en comparación con otras estrategias de acompañamiento educativo. Se realizó una revisión bibliográfica sistemática conforme a las directrices de la declaración PRISMA, utilizando bases de datos internacionales y términos clave relacionados con obesidad, juegos, mentoría y motivación personal. Los resultados mostraron que la gamificación tuvo un efecto positivo en la motivación hacia la actividad física, destacando los componentes competitivos como los más eficaces (85 %), seguidos del apoyo social (75 %) y la colaboración grupal (70 %). Estos hallazgos sugieren que la mentoría universitaria basada en el juego es una estrategia prometedora para fomentar hábitos de autocuidado y estilos de vida saludables en adolescentes, aunque se requiere mayor investigación para definir las condiciones óptimas de su implementación en el ámbito escolar.

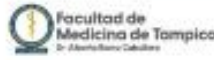
Palabras clave: mentoría universitaria; gamificación educativa; autocuidado; sobrepeso y obesidad; motivación en adolescentes

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INTRODUCTION

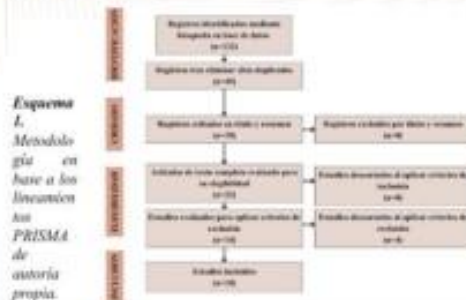
In Mexico, more than 40% of high school students are affected by overweight or obesity. During this stage, adolescents gain greater autonomy in their food choices and tend to reduce their level of physical activity, which increases the risk of weight gain. The development of self-care habits depends strongly on motivation, not solely on access to information. Peer mentoring and game-based strategies can increase participation, foster a sense of competence, and enhance personal commitment, thereby facilitating the sustained adoption of healthy behaviors.

OBJETIVE

To systematically review the scientific literature on the effectiveness of game-based university mentoring in promoting motivation toward self-care among overweight high school students, compared with other educational support strategies.

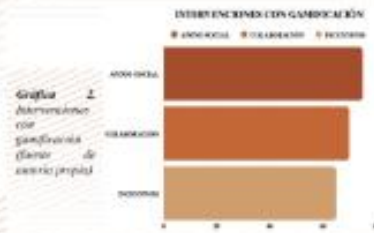
METHODOLOGY

The present study was conducted as a systematic bibliographic review following the guidelines of the PRISMA statement (Preferred Reporting Items for Systematic Reviews and Meta-Analyses). The research search strategy focused on the following keywords: Obesity, Overweight, Metabolic syndrome, Games, Mentoring, Personal motivation, Habits



RESULTS

Gamification demonstrated a positive effect on motivation toward physical activity. Competitive components were the most effective (85%), followed by social support (75%) and group collaboration (70%). These findings confirm the usefulness of gamification as an innovative strategy to promote healthy habits among adolescents.



CONCLUSIONS

Evidence indicates that overweight and obesity among high school students require strategies that strengthen motivation toward self-care beyond simply providing information. University mentoring that incorporates game elements represents a promising approach, as it promotes participation and peer support. When properly designed, it can improve adherence to healthy habits and encourage sustainable lifestyles. However, further research is still required to determine the conditions that optimize its effectiveness within school settings.

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