

A Qualitative Study on Obese Adults' Perceptions of Using Artificial Intelligence for Weight Management Counseling

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INTRODUCTION

The global prevalence of obesity continues to rise, posing significant challenges to individual health and public healthcare systems. The term artificial intelligence is gaining attention in healthcare, seen as a means to resolve difficulties experienced by students, educators, health professionals, and patients. Despite its potential to support behavior change and improve outcomes, there is a lack of knowledge about obese adults' perceptions of using artificial intelligence in weight management counseling.

OBJECTIVE

This study aims to explore the perceptions of obese adults regarding the use of artificial intelligence for weight management counseling.

METHOD

Data were collected through semi-structured, in-depth interviews with 16 obese adults recruited using convenience sampling. Interviews were recorded and transcribed verbatim. The results were analyzed through thematic content analysis.

RESULTS

Three main themes and eight subthemes emerged. The main themes included trust and acceptability of artificial intelligence, motivations and barriers to using artificial intelligence tools and expectations of artificial intelligence's potential role. Subthemes included lack of personalized recommendations, greater trust in healthcare professionals, concerns about the reliability of information, appreciation for convenience, concerns about cost and data privacy, expectation for individualized advice, desire for real-time and adaptive feedback, and preference for artificial intelligence as a supportive tool rather than a replacement for doctors.

Table 1

Participants' characteristics.

Characteristics	Participants (N = 16)
Gender	
Male	9
Female	7
BMI (kg/m ²)	
24.0 ≤ BMI < 28.0 (overweight)	6
≥ 28.0 kg/m ² (obesity)	10
Age	
18 ≤ age ≤ 29 years	8
30 ~ 39 years	6
≥ 40 years	2
Highest education	
Diploma or associate	1
Bachelor or higher	15



Table 2

Main themes and subthemes identified from the focus group interviews.

Main themes	Subthemes
Trust and acceptability of artificial intelligence	<ul style="list-style-type: none"> Limited Awareness of Artificial Intelligence Applications in Weight Management. Intention to Lose Weight through Using Artificial Intelligence. Preference for Clinician Involvement in Artificial Intelligence-Supported Interventions.
Perceived Advantages of Artificial Intelligence Tools	<ul style="list-style-type: none"> Perceived Comprehensiveness and Integration of Artificial Intelligence-Generated Information. Convenience and User-Friendliness of Artificial Intelligence Platforms. Trust in Data Security.
Barriers to using artificial intelligence tools	<ul style="list-style-type: none"> Technical Usability Issues: High Requirement for Precise Input Instructions. Functional Barriers: Lack of Individualized Feedback and Emotional Interaction. Psychological Barriers: Skepticism toward Artificial Intelligence-Generated Recommendations and Concerns about High Costs. Practical Challenges in Implementing Artificial Intelligence-Based Weight Loss Plan
Expectations of artificial intelligence's potential role in weight management	<ul style="list-style-type: none"> Expectations for The Application of Artificial Intelligence in Weight Loss Treatment. Expectation for More Personalized Design of Artificial Intelligence's Functions.

CONCLUSIONS

Three main themes and eight subthemes emerged. The main themes included trust and acceptability of artificial intelligence, motivations and barriers to using artificial intelligence tools and expectations of artificial intelligence's potential role. Subthemes included lack of personalized recommendations, greater trust in healthcare professionals, concerns about the reliability of information, appreciation for convenience, concerns about cost and data privacy, expectation for individualized advice, desire for real-time and adaptive feedback, and preference for artificial intelligence as a supportive tool rather than a replacement for doctors.

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