

Health and Self Esteem

Exploring AI-Supported Creative Learning in a Multi-modal Health Promotion Course for Older Adults: A Pilot Study W. H. Chen, T. J. Lee. *Gerontechnology* 25(s)

Purpose Age-related swallowing difficulties, emotional changes, and declining self-efficacy are common yet often under-addressed concerns among community-dwelling older adults. Recent gerontechnology and arts-based health promotion approaches suggest that integrating music-guided oral motor training, reflective art, and AI-supported creative activities may enhance both physical and psychosocial well-being. This study aimed to examine the feasibility and perceived impact of a three-session multimodal course designed for older adult learners at a Senior Learning Center, using a mixed-methods framework [1]. **Method** A mixed-methods design was employed. The study was conducted from December 02 to December 12, 2025. Participants (N=12, mean age = 68.4 ± 4.6 years; 75% female) were recruited from a Senior Learning Center in Taiwan. Some of whom presented with mild cognitive impairment (N=8; 75%.) Participants attended three weekly sessions combining music-guided oral diadochokinetic exercises (Pa-Ta-Ka-La), body movement, mandala-based reflective drawing, and AI-supported co-creation (poems, songs, and short videos). Quantitative assessments were administered at multiple time points, including EAT-10, SPMSQ, GDS-15, GSES, and PANAS-SF. Post-intervention satisfaction questionnaires were collected after the final session. Qualitative data were derived from group sharing, reflective narratives, AI-generated texts, and facilitator field notes, and analyzed using qualitative content analysis [2]. The course schedule is summarized in Figure 1. **Results and Discussion** Quantitative results indicated low baseline swallowing risk (EAT-10: $M = 0.33 \pm 0.65$), generally positive affect (PANAS-SF positive: $M = 36.67 \pm 5.18$), generally negative affect (PANAS-SF negative: $M = 26.17 \pm 9.10$) low depressive symptoms (GDS-15: $M = 2.75 \pm 3.94$), and moderate self-efficacy levels (GSES: $M = 26.5 \pm 4.38$). Qualitative analysis revealed four major themes:(1) increased embodied awareness and confidence in swallowing-related self-care through rhythmic oral motor training; (2) emotional regulation and expression facilitated by music, movement, and symbolic use of color and geometric forms; (3) enhanced reflective awareness and meaning-making through art-based and AI-supported externalization of inner experiences; and (4) perceived empowerment and learning continuity, reflected in participants' willingness to engage with new technologies and express future-oriented hope. Participants described the course as enjoyable, non-threatening, and supportive of both physical engagement and emotional sharing. The integration of music-guided oral exercises, reflective art, and AI-assisted creative learning supported both physical awareness and psychosocial well-being. Future research should incorporate larger samples and longitudinal designs to further evaluate effectiveness and sustainability.

References

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Figure 1. Course Schedule

