
Abstract

Effectiveness of Telegenetic Counseling for Patients and Families With Suspected Hereditary Cancer: Systematic Review

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Abstract

Background: Telegenetic counseling has attracted attention as a preventive measure against the recent COVID-19 pandemic. This systematic review compared telegenetic counseling using videoconferencing versus face-to-face counseling for hereditary cancer.

Objective: This study aimed to evaluate the effectiveness of telegenetic counseling using videoconferencing versus face-to-face counseling for people with suspected hereditary cancer.

Methods: A comprehensive literature search was carried out in December 2021 using the databases of the Japan Medical Abstracts Society, PubMed, CINAHL, PsycInfo, EMBASE, and the Cochrane Library. The eligibility criteria were studies in which randomized controlled trials (RCTs) or cluster RCTs were conducted among patients with suspected hereditary cancer and their families, comparing telegenetic counseling using videoconferencing with face-to-face genetic counseling. The Cochrane risk-of-bias tool was used to assess the risk of bias of each RCT study. This study was reported according to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) guidelines.

Results: Two studies comprising a total of 191 participants were included and used for meta-analysis. Participants were individuals who lived in rural areas or in areas without genetic counselors and were suspected to have breast, colon, ovarian, multiple, or genetic cancer. All outcomes were assessed in only 1 study and their effects could not be discussed explicitly. In one study, there were no significant differences in satisfaction, psychological distress, or a number of genetic tests between face-to-face genetic counseling and telegenetic counseling. The cost per patient for genetic counseling was \$106.19 for the telegenetics group and \$244.33 for the in-person group. The risk of bias was high in both studies, with a high risk of performance bias, detection bias, and attrition bias.

Conclusions: The results of the two RCTs were described qualitatively. However, the evidence is limited because of the small number of RCT studies on telegenetic counseling and the high risk of bias. Further accumulation of studies is needed in the future.

Conflicts of Interest: None declared.

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KEYWORDS

telegenetics; genetic counseling; hereditary cancer: systematic review

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