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Conference abstract

Telehealth for heart failure: exploring the mechanism of effect—a systematic review of self-care behaviour

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Abstract

Background: The evidence on telehealth (TH) interventions for the management of heart failure, although limited, suggests that significant improvements are achievable in terms of increased Quality of Life and reduced hospitalisations and mortality. The mechanisms by which such outcomes emerge is rarely considered. A greater understanding of these mechanisms might facilitate the development of more effective TH interventions. One possible mediating mechanism is patient self-care behaviour. We report a systematic review of the quality and strength of evidence for a model in which self-care behaviour mediates beneficial outcomes.

Methods: A comprehensive search strategy was developed and applied to seven electronic databases to identify empirical studies that have investigated the relationship between TH and self-care behaviour, or putative precursors of self-care behaviour (i.e. knowledge, self-efficacy). The eligibility of studies was independently assessed by two reviewers using explicit criteria; all studies meeting the criteria were then independently quality assessed by the same reviewers using more detailed criteria. Evidence for each of the hypothesised pathways in our model was synthesised.

Findings: We identified 12 relevant studies of which 11 were judged to be low quality and one moderate quality. There was insufficient evidence available to support or disconfirm any of the proposed relationships between (i) TH and knowledge, self-efficacy or self-care, (ii) knowledge or self-efficacy and self-care, or (iii) self-care and QoL/ clinical outcomes.

Interpretation: The strength of evidence for the mediating role of self-care and related constructs between TH and improved outcomes in HF is currently inadequate to guide the development of TH services. Improving TH outcomes through an understanding of the mechanisms of effect will require further research which should be guided by a clear theoretical framework such as the one described and examined.

Keywords

telehealth, heart failure, self-care, mechanism of effect, review
