

Assigning value to patient's time in care: a systematic review of Discrete Choice Experiments

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Abstract

Background: Economic evaluations guide health policy by comparing the costs and quality-of-life benefits of healthcare interventions. Traditional approaches often overlook non-health dimensions, notably the loss of life opportunities due to the time burden of treatment. However, accounting for time as a determinant of opportunities is essential and in line with both Sen's capability framework and Grossman model of health demand. Discrete choice experiments (DCEs) are a robust method to quantify how patients value time spent accessing or receiving care.

Objective: To systematically review studies using DCEs assessing how patients value care-related time attributes.

Methods: A systematic search was conducted in Embase, PsycInfo, PubMed, Scopus, and the Cochrane Library for DCEs examining time-related aspects of care. Studies published in English or French using choice-based utility designs were included. Data were synthesized narratively, and a thematic analysis categorized attributes and assessed their frequency and relative importance.

Results: Seventy-eight studies (2003–2025) were included, identifying six time-related attributes: travel time, waiting time, treatment duration, treatment frequency, consultation length, and hospital stay. Clinical outcomes, safety, and quality of care dominated preferences, but time attributes influenced decisions contextually. Patients generally preferred shorter treatments and fewer visits, particularly for chronic or burdensome conditions; they were willing to accept longer time commitments when clinical benefits or care quality were high. Preferences varied by disease, setting, and individual characteristics (age, gender, socio-economic status, etc.).

Conclusion: Time-related care attributes significantly shape patient preferences and opportunity costs. Incorporating time burdens into economic evaluations better captures quality of life and supports more patient-centered and equitable care.

Keywords: Time burden; Discrete choice experiment; Preferences; Treatment burden; Opportunity cost