End-of-life care often includes a constellation of supportive care options marred by conflicting concerns among patients, their families, and health care professionals. Leng et al performed a discrete choice experiment to estimate end-of-life care preferences among terminally ill patients with cancer in China. Although they cited prior studies that have evaluated the end-of-life care preferences of patients in other countries, the authors remarked that China remains an outlier in that it lacks shared decision-making between patients and their health care team. End-of-life decisions in China may also be strongly influenced by family members, and this complex dynamic may suppress the patient's priorities. This unique context elevates the importance of the research by Leng et al. The findings provided empirical evidence that improving quality of life was of greater value among study participants than was extending life. Furthermore, dying at home was preferred over dying in a hospital.

Few health scenarios have a single dominant strategy. Patients and health care professionals are tasked with making trade-offs under resource and information constraints. In the era of patient-centered medicine, health care professionals strive to align care provision with patients' priorities. Discrete choice experiments are a valuable method for quantifying preferences, comparing competing options, and understanding preference variations among subgroups.

Originating in the field of economics, discrete choice experiments assume that products, services, and policies can be described by their attributes. This research method assumes that an individual's preference for a given product, service, or policy depends on the person's desire for its described attributes. As such, individuals will prefer a product, service, or policy option that maximizes the utility they gain from its attributes. Because the method focuses on the utility that individuals derive from the attributes rather than from existing alternatives, researchers can efficiently estimate preferences for a wide variety of options and assess acceptable trade-offs between competing options.

The discrete choice method has continually evolved during the past 50 years. It gained widespread recognition in 2000 when the Nobel Memorial Prize in Economic Sciences was awarded to Daniel McFadden for pioneering this approach. In health care, discrete choice experiments continue to gain popularity, with many different applications. Recent examples include the evaluation of pain control factors after surgical treatment, the acceptability of COVID-19 social distancing policies, and the development of a novel glaucoma severity scale.

Best practices suggest using literature reviews, focus groups, and interviews with key informants to establish a set of salient attributes with accompanying levels describing the plausible options under investigation. For example, the study by Leng et al had 6 attributes: time in the hospital, extension of life, quality-of-life improvement, adverse events, location of death, and out-of-pocket costs. Once the attributes and levels are defined, researchers use specialized software to generate a group of uncorrelated choice sets that describe 2 or more hypothetical scenarios with varying levels of the attributes. Discrete choice experiments measure stated preferences by asking respondents to select their preferred option in each choice set included in the series.

Researchers can analyze responses in the discrete choice experiment to produce different outputs for interpretation. In their study, Leng et al reported utility estimates, indicating the preference magnitude and direction for each included attribute level on a linear scale. With these results, the authors calculated the patients' willingness to pay for marginal changes in quality of life, duration of life, and prevention of adverse events and for the location of death. The data were also
used to derive the probability of uptake for possible end-of-life care scenarios and to quantify preference heterogeneity among respondents. Other studies have calculated the relative importance of each attribute and evaluated preference variation based on observed or latent characteristics within the sample.\textsuperscript{5,6,9}

Through the conduct of a discrete choice experiment, researchers quantify explicit preferences. However, they can also disentangle the implicit trade-offs, which might not be overtly apparent to respondents if studied using simpler methods. The approach also elucidates preferences for options that can be described but are not yet available—a helpful feature when designing new programs or services.

There are several common criticisms of discrete choice experiments. A frequent contention is that the technique measures only stated, not revealed, preferences. This point is often coupled with concerns about respondents' comprehension of hypothetical comparisons. However, studies have quelled these critiques, demonstrating congruence between results of discrete choice experiments and real-world decisions.\textsuperscript{3,10} Furthermore, results of discrete choice experiments are conditioned on a finite set of included attributes. Introducing other salient attributes can alter the research findings, and results should be interpreted with this in mind.

As Leng et al\textsuperscript{1} demonstrated, discrete choice experiments are an efficient method for identifying patient preferences for complex health choices. The data generated by this method can inform clinical and policy decision-making, improve adherence to treatments and programs, and guide the development of health programs and technologies to match patient demand.

**REFERENCES**


