

# Dissecting Patient preferences in Surgery - A case for Conjoint Analysis

## Abstract

In surgery many treatment alternatives can be considered to be relatively equipose, with no alternative dominating the other. Treatment decisions should therefore depend on patient preferences. Adhering to preferences also increases adherence to therapy and improves treatment outcome. Surgeons are however poor judges of patient' needs. Preferences should therefore be examined through preference research. However, to date there is a paucity in preference research in surgery.

In the fields of behavioural psychology, marketing and economics significant advancements have been made in exploring preferences. Conjoint analysis has become the most frequently used method and has recently been introduced into healthcare.

In conjoint analysis, treatment alternatives are described based on their characteristics, called attributes. All alternatives can be described using the same attributes with attribute levels varying between options. A conjoint analysis experiment consists of a set of hypothetical profiles composed of attributes and levels. Respondents are asked to indicate their most preferred profile. Individuals have different preferences for certain attributes and levels and are forced to trade off one profile over another. Advanced statistical analyses identify which attributes are significant in driving preferences.

A major advantage of conjoint analysis over other techniques is that it uncovers the decision process on which preferences are founded. Using this knowledge one can estimate preferences for alternative therapies, perform subgroup analysis and determine optimal timing of treatment. In addition, using hypothetical attributes and levels one can estimate the uptake of new therapies and innovations in care. Conjoint analysis therefore provides strategical information which can be used to improve the standard of care in surgery.

## Useful starting points

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