

Greater optimistic bias for survival was associated with choosing a *risky* medical procedure in a hypothetical end-of-life scenario.

Hopeful yet Hesitant: How an Optimistic Bias for Survival Shapes an End-of-Life Medical Decision

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AIM:

- To examine whether individuals with an optimistic bias for their own survival and a close other's survival would make riskier decisions in hypothetical end-of-life scenarios

BACKGROUND:

- Optimistic bias** is the tendency to overestimate the likelihood of positive events occurring
- Having an optimistic bias has been related to misinterpreting prognostic information and making riskier medical decisions
- This tendency has been demonstrated with medical decisions for oneself and a close other

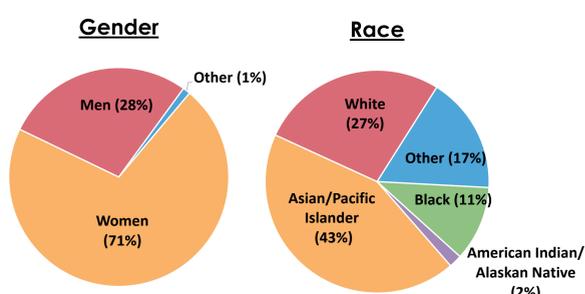
METHODS:

Design:

- Within-subjects, laboratory-analogue study

Sample:

- 276 college students
- Mean age = 19.6, SD = 3.3, Range = 18-41



PROCEDURES AND RESULTS:

(1) Participants were asked to read a hypothetical end-of-life medical scenario and imagine (a) being in the situation themselves and (b) having a close other in the situation:

"Imagine that you have been in an accident and are taken to a hospital. You have been admitted to the Intensive Care Unit and will need surgery to treat your injuries. The surgeon informs you there is a **50% (one in two) chance that you will survive** this surgery."

(2) Participants made an estimation of survival on a scale of 0 (will not survive) – 100% (will survive).

49% of participants interpreted their own likelihood of survival as > 50%

50% of participants interpreted their close other's likelihood of survival as > 50%

35% of participants had optimistic bias for their own survival *and* a close other's survival!

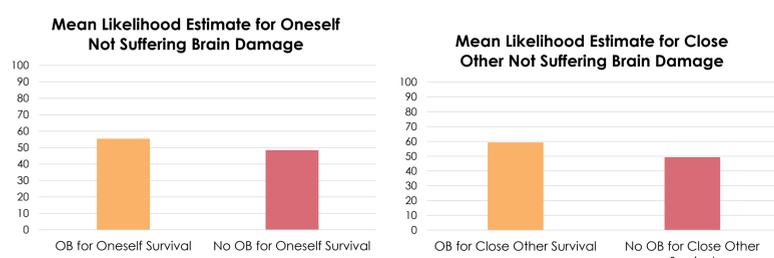
(3) Participants were asked to make an end-of-life medical decision.

"You can opt for resuscitation, but it involves risk of losing consciousness and suffering brain damage."

53% of participants opted for resuscitation for themselves

78% of participants opted for resuscitation for their close other

(4) Participants were asked to make an estimation for the likelihood of suffering consequences (e.g., suffering brain damage) of a risky surgical procedure.



(5) Participants were asked to describe their decision-making process.

- Individuals who had an optimistic bias for survival were asked to describe their decision-making process.
- Emergent themes from preliminary findings suggest that, as expected, some participants cited personal factors (e.g., age, youthfulness, current health status, and personality) as determinants of survival and surgical complications.

"I took age and health into consideration. Because I am younger and overall healthy, I figured that the likelihood of me suffering brain damage would be low."

- Interestingly, some participants who had an optimistic bias and were hopeful also indicated a tendency to prepare for the worst, suggesting that being positive may have a more nuanced role in medical decision-making.

"Part of me still hoped for the best but I was still expecting the worse"

DISCUSSION:

- Individuals who display an optimistic bias for survival in hypothetical end-of-life medical scenarios extend their cognitive filter to their loved one in a similar situation, and to the likelihood of good surgical outcomes.
- An optimistic bias for survival does not influence choosing a medical procedure with risks, but it does influence the interpretation of surgical outcomes.