Perceptions of Adverse Reactions Among College Students

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INTRODUCTION

- Expectations of negative effects from medical interventions can be self-fulfilling and produce harmful "nocebo" effects.
- Attribute framing ("30% chance of side effects" Vs "70% chance of no side effects") can reduce nocebo side effects
- However, people's expectations of side effects, including base-rates of perceived risk, are not well-understood.
- Present study finds the side effect risk rating that most university students are willing to accept.

METHODS

- Online survey of 124 intro psych students
- Main DV: "If a doctor recommended a drug or treatment to you but warned that you could experience a negative side effect, what number(s) pop into your head? Specifically, what do you think the likelihood is of you getting a side effect?"



RESULTS



- Repeated measures ANOVA with H & F correction showed significant differences between treatments. F(5.12, 629.12) = 74.87, p < .001.
- Multi-step post-hoc comparisons showed four distinct group with largest significant p < .001.



Perceived risk of side effects varied by treatment. But people may hold a default risk perception of 21-55% for unspecified or unfamiliar treatments.





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GENERAL RISK RATING

- Correlated with 5/6 treatment-specific ratings at α = 99%. Rs range between .42 - .58. • Associated with personal experience of side
- effects. F(2, 121) = 6.25, p = .003.





Have you ever personally experienced a negative side effect from a drug or medical treatment?

- Correlated with willingness to pay to avoid side effects. R = .264, p = .003.
- General risk rating (but not the treatmentspecific ratings) was predicted by numeracy. $R^2 = .09, F(1, 122) = 12.05, p = .001, \beta = -.30.$

DISCUSSION

For future side effect studies, we recommend using actual probability of side effects where possible, and 21-55% where treatment is unspecified or novel.

Further empirical work is needed to confirm the following hypotheses:

- The general risk rating is a good default indicator of perceived side effect risk
- Higher numeracy is associated with lower risk estimates
- People tend to rely less on the general risk rating for familiar treatments





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