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Understanding Consumers' Decision Making: Effect of Anecdotal Comments Integrated with Public Reports

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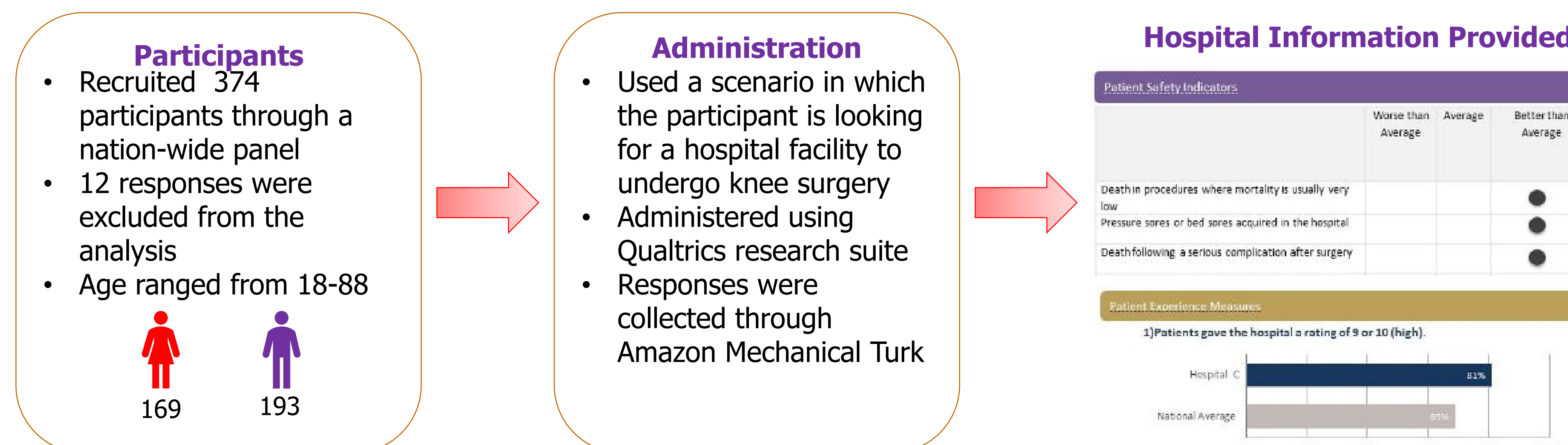
INTRODUCTION

- Public reporting is the provision of information about the performance and quality of hospitals and healthcare professionals to the consumers to facilitate their decision making
- The primary reason for making the information available to the public in the USA is to help consumers make informed decisions about their healthcare choices (Davies & Marshall, 1999) and motivates healthcare providers to improve the quality (Berwick, James, & Coye, 2003)
- However, only limited evidence has been recorded in terms of their use by the consumers to significantly change their healthcare choices (Faber et al., 2009)
- Use of patient reported measures or anecdotal comments is one way of increasing the use of publicly available information on hospital facilities. However, the major drawback of relying on such user generated comments is the risk of being misled (Eysenbach, Powell, Kuss, & Sa, 2002)
- This study tried to understand the specific role played by anecdotal information integrated with public report while making healthcare decisions.

RESEARCH QUESTIONS AND HYPOTHESES

Research Questions	Hypothesis Statements
RQ1: Does the nature of anecdotal information (whether positive or negative) have any effect on consumers' choice of healthcare facility?	H1: The probability of looking for other facilities increases when the nature of anecdotal comments change from positive to negative.
RQ2: How does public report on the performance of healthcare facility influence consumers' choice of the healthcare facility?	H2: The probability of looking for other facilities increases when the nature of anecdotal comments change from positive to negative.
RQ3: What is the most influential piece of information that helps decision making?	H3: Participants will have higher reliance on the public report while making healthcare choices.

METHODOLOGY



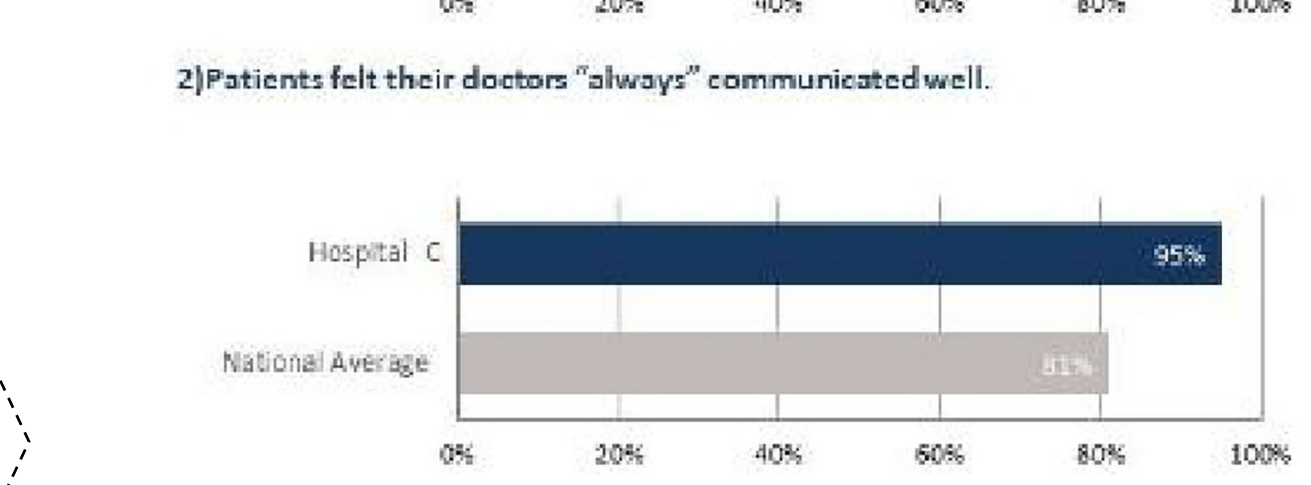
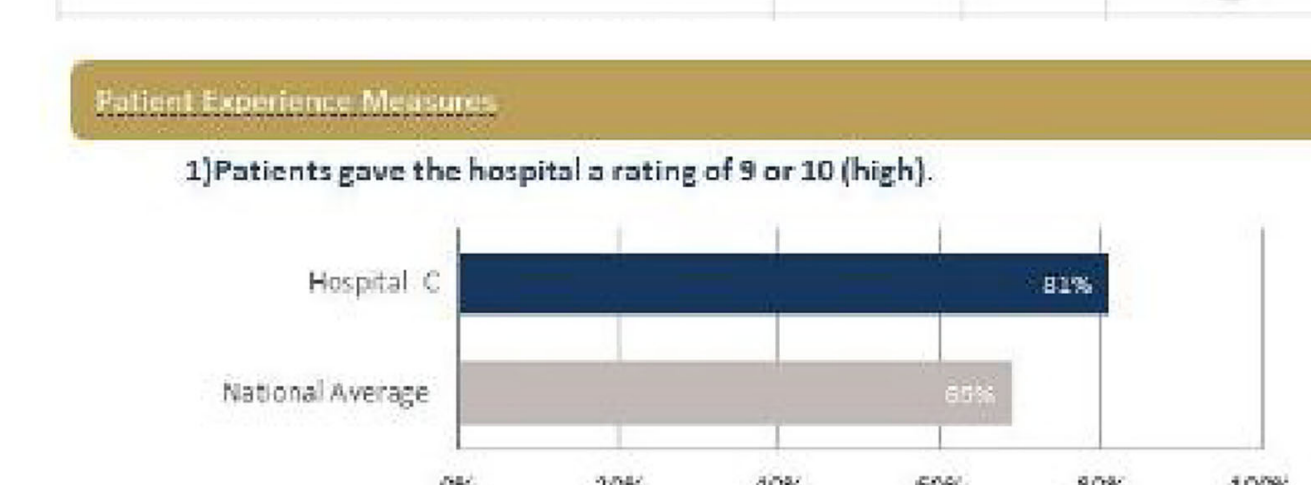
Procedure

- Participants were randomly assigned to one of the 6 conditions
- Completed the demographic survey
- Participants were then presented with the scenario where they are looking for an orthopedic surgical facility
- The participants were then presented with the performance metrics information of an above average, average or below average healthcare facility (Hospital A)
- Then they were presented with positive or negative anecdotal comments about the same facility
- This report was followed by the performance metric report and anecdotal information for two more facilities, Hospital B and C
- Participants were asked to complete a post-test questionnaire that asked them their choice (one of the three hospitals (A, B, C) introduced or look for other facilities)
- Then they indicated the most influencing factor (public report or anecdotal information) helped in decision making

Independent Variables	Levels
Nature of anecdotal comments	Positive and Negative
Performance based on public reports	Above average, Average and Below average

Hospital Information Provided

Patient Safety Indicators	Worse than Average	Average	Better than Average
Death in procedures where mortality is usually very low			●
Pressure sores or bed sores acquired in the hospital			●
Death following a serious complication after surgery			●



Patient reviews on Hospital C

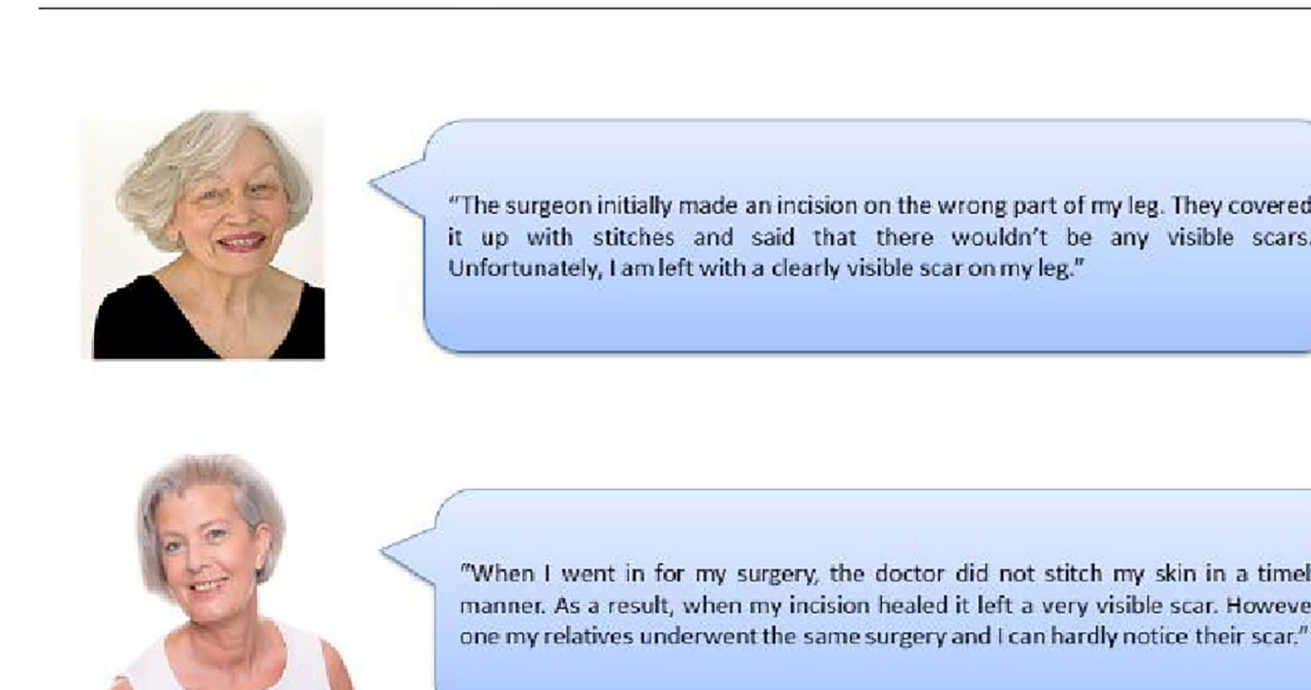


Figure 1. Information provided to the participants

Dependent Variables	Categories
Participants' Choice	0 for choosing one of the three facilities presented and 1 for choosing other facilities not listed in the scenario.
Most influential information	0 for choosing performance metrics and 1 for choosing anecdotal information

ANALYSIS

- IBM SPSS 22.0 was used to analyze the data
- Standardized Deviance residuals and Cook's Distance were used to identify outliers
- Binary logistic regression model was used to analyze the data

RESULTS

Participants' choice

- The omnibus test of full model with the two predictors and the interaction term was significant ($\chi^2(5, N = 362) = 140.868, p < 0.001, R^2L = 0.28$)
- Observed a main effect between positive and negative anecdotal information ($\Delta \chi^2 = 56.371, p < .001$) (Figure 2)
- Observed a main effect of performance metrics based on public reports ($\Delta \chi^2 = 78.605, p < .001$) (Figure 3)
- Observed an interaction between the nature of anecdotal comments and performance metrics ($\Delta \chi^2 = 7.284, p = 0.026$) (Figure 4)

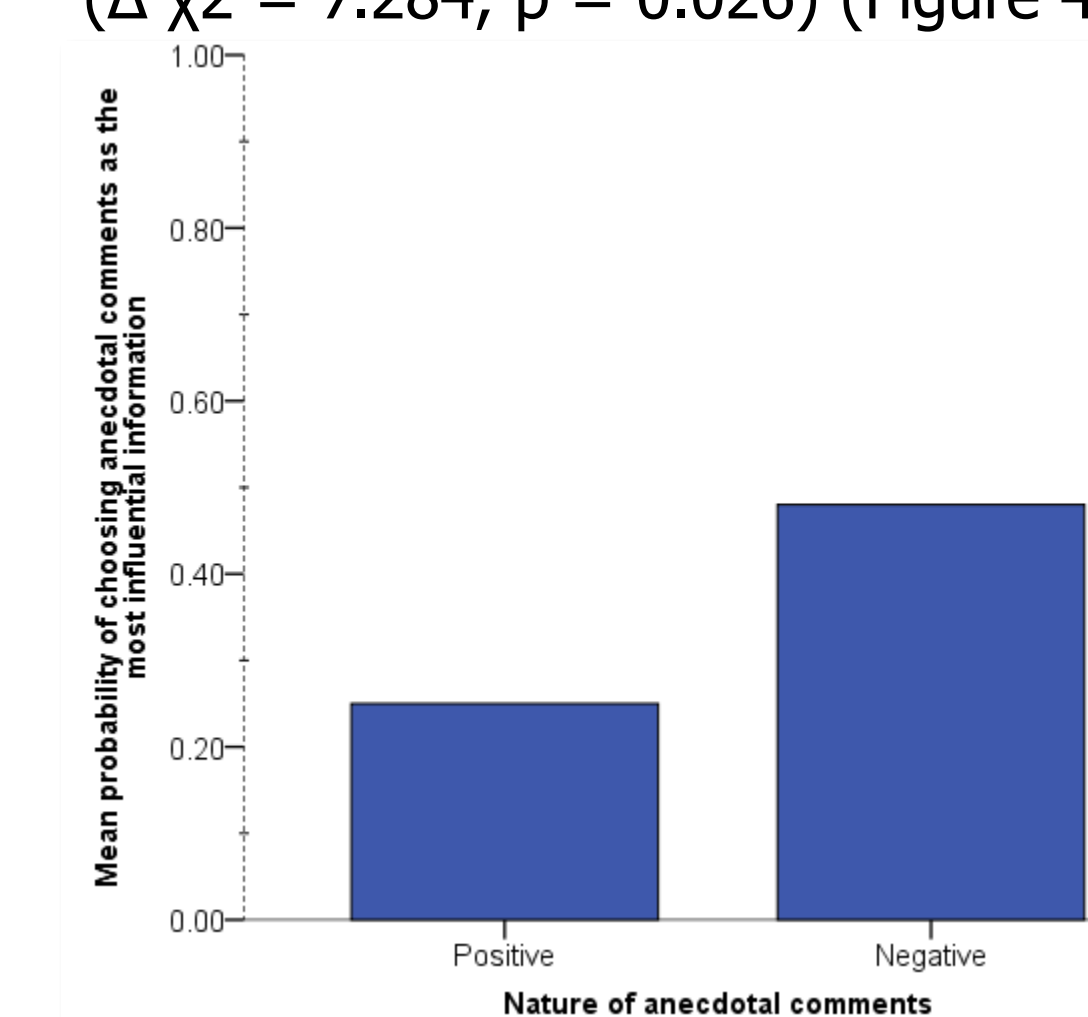


Figure 5. Main effect of anecdotal comments on most influential information

Most influential information

- The omnibus test of full model with the two predictors and the interaction term was significant ($\chi^2(5, N = 362) = 49.289, p < 0.001$)
- Observed a significant main effect between positive and negative anecdotal information ($\Delta \chi^2 = 19.334, p < .001$) (Figure 5)
- Observed a main effect of performance metrics based on public reports ($\Delta \chi^2 = 30.949, p < .001$) (Figure 6)
- The interaction effect was not significant

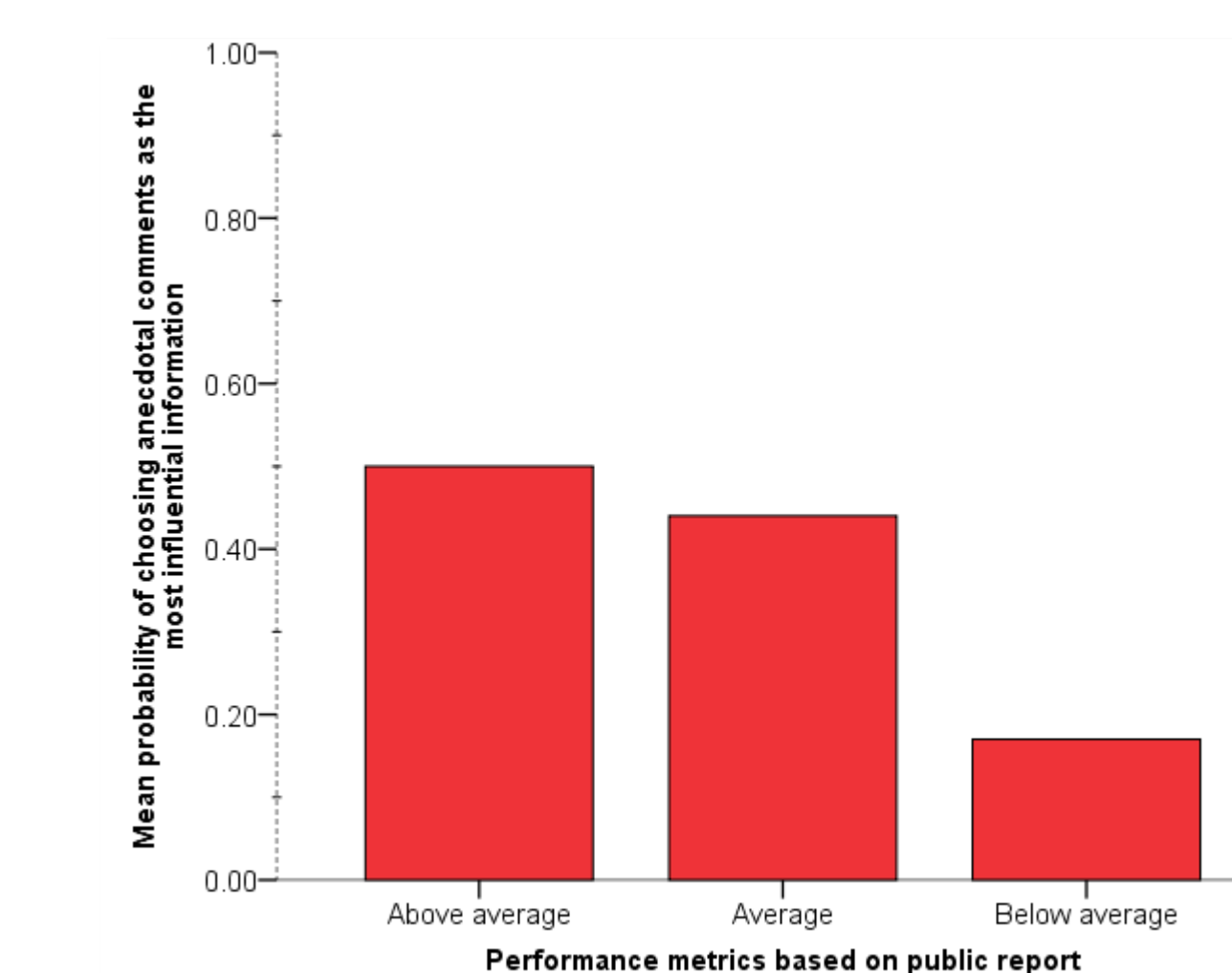


Figure 6. Main effect of public reports on most influential information

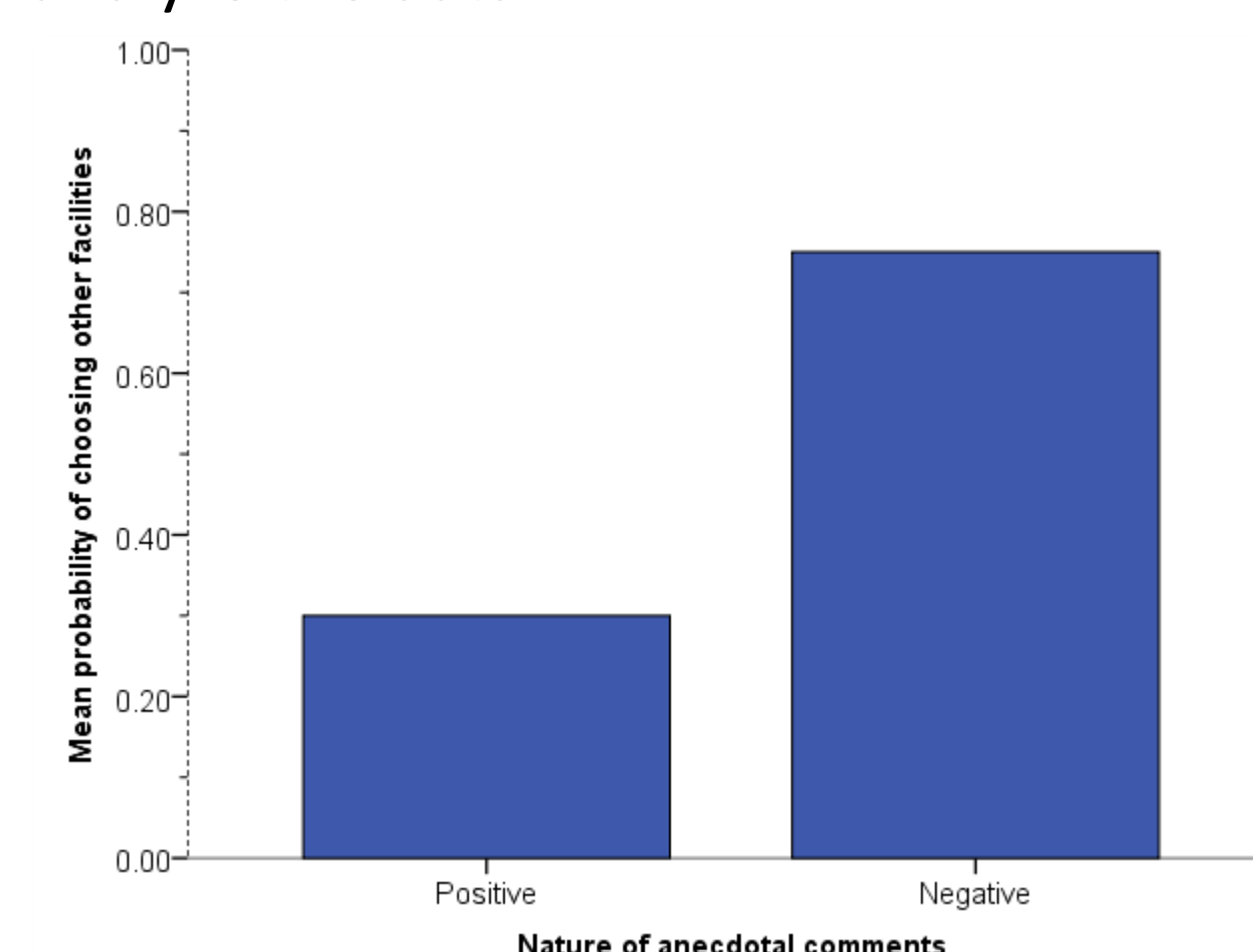


Figure 2. Main effect of anecdotal information on participants' choice

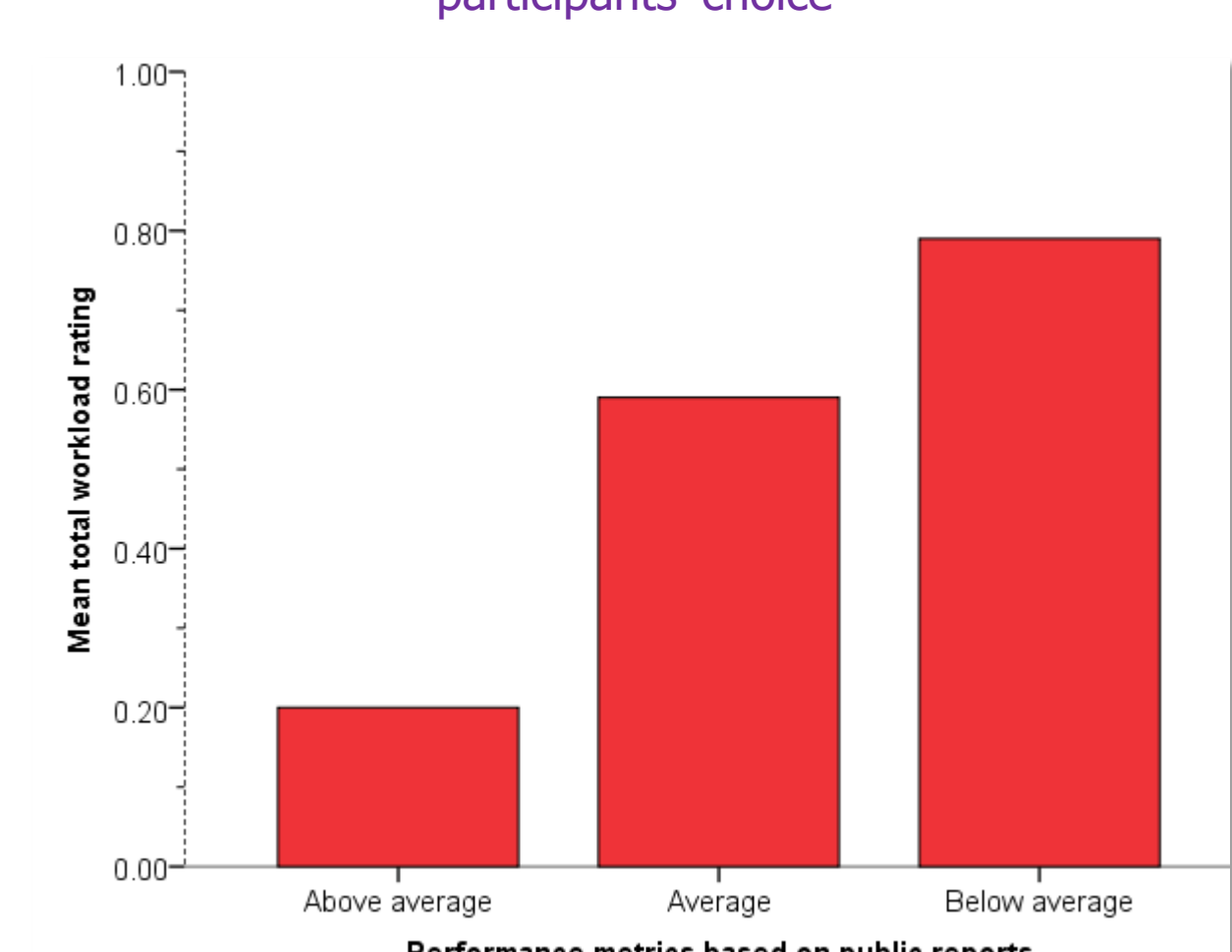


Figure 3. Main effect of public reports on participants' choice

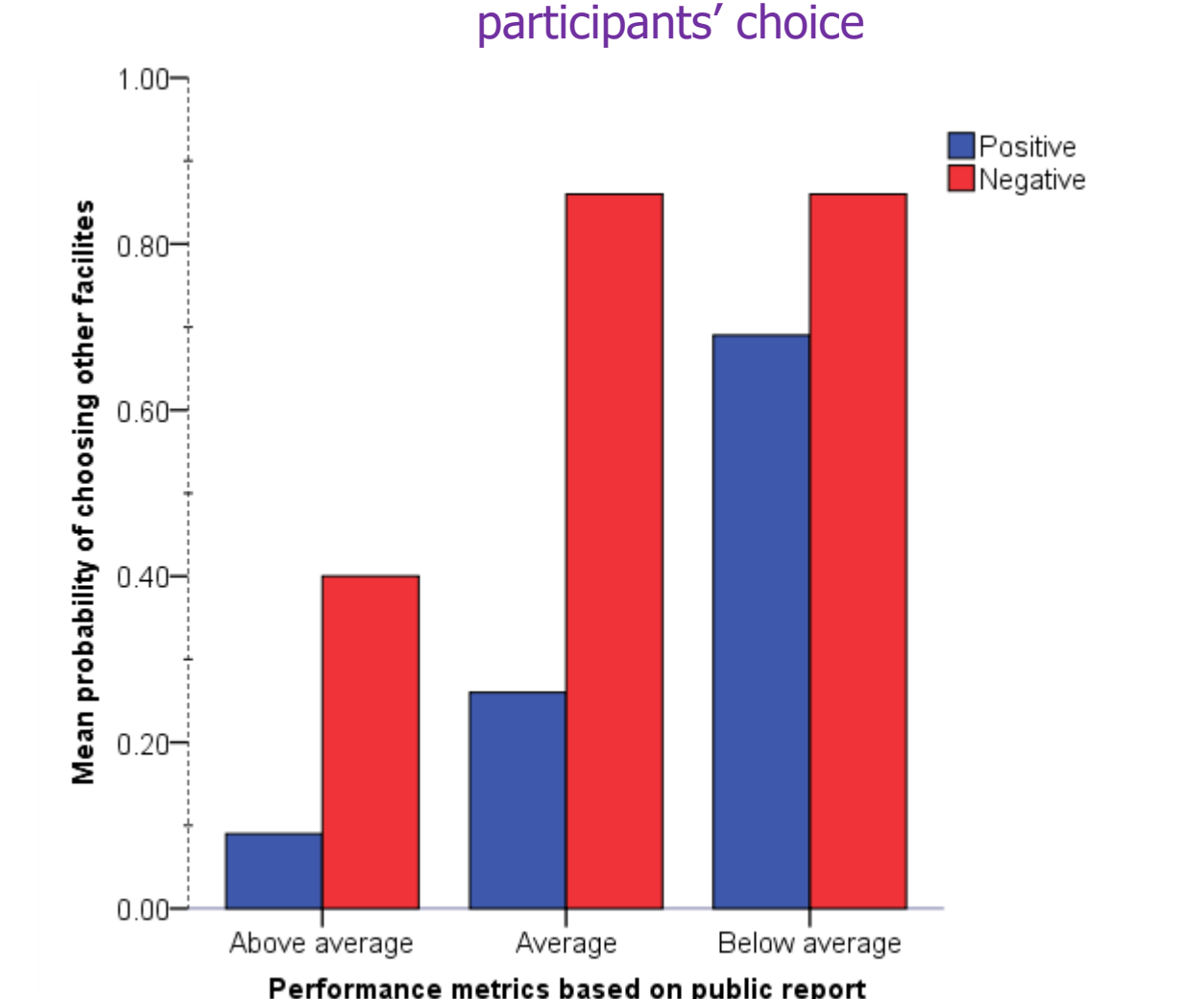


Figure 4. Interaction effect of predictors on participants' choice

DISCUSSION

- Higher probability of choosing other facilities was observed when the anecdotal information on the hospitals listed was negative or the quality of the hospitals according to public reports was below average
- When anecdotal information was positive and public reports was above average, participants chose one of the hospitals listed in the scenario.
- When the anecdotal information contradicted public reports, their choice was influenced by negative information (poor hospital quality based on public reports or anecdotal comments criticizing the facility)
- Negative anecdotal information reduced the probability of choosing above average quality hospitals
- Participants primarily based their decisions on the performance metrics information based on public reports.
- The reliance of anecdotal information was the lowest when the quality of facility according to the public reports was below average. In such a scenario, participants based their decision primarily on public reports

Conclusions and Future Directions

- This study examined consumers' decision when they were provided with performance metrics according to the public report and user-generated anecdotal comments
- Negative anecdotal information influenced consumers' decision making when integrated with above average public reports
- This underlines the importance of providing anecdotal information that is trustworthy
- There is a need to develop a new set of decision aids to facilitate consumers' healthcare decision making

Reference

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