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\*\*Introduction\*\*

Good morning/afternoon/evening, everyone. Today, I am here to present our research on the impact of quack markets on patient welfare. This study is particularly relevant in industries where the quality of service is difficult to assess, such as psychological therapy, management consulting, and alternative medicine.

\*\*Research Background\*\*

Our research delves into a hypothetical market where quacks and patients engage in price competition. Patients, influenced by limited rationality, often rely on personal experiences or anecdotes rather than probabilistic reasoning when choosing treatments. This phenomenon is common in certain industries where the separation between skill and luck is not clear-cut.

\*\*Research Questions\*\*

The primary research question we aim to answer is: Can market competition alleviate the exploitative impact of quacks on patient welfare? We hypothesize that patients follow a limited rationality decision rule, known as the S(1) procedure, which is based on anecdotal reasoning.

\*\*Model Derivation\*\*

Our model derivation begins by defining the decision processes of both patients and quacks. We then derive the Nash equilibrium in the price competition game, which reveals that the equilibrium strategy is a mixed and symmetric one.

\*\*Formula Interpretation\*\*

The expected equilibrium price of quacks is found to be related to the disease cure probability, denoted as \( \alpha \). As the number of quacks, denoted as \( n \), increases, the patient welfare loss exhibits a non-monotonic relationship with both \( n \) and \( \alpha \).

\*\*Main Results\*\*

Our main findings include:

1. Quack markets remain active regardless of the cure probability \( \alpha \).

2. The expected equilibrium price for quacks decreases as \( \alpha \) decreases, suggesting more quack behavior for more difficult-to-cure diseases.

3. The welfare loss for patients is non-monotonic in relation to the number of quacks \( n \) and the cure probability \( \alpha \).

\*\*Practical Significance\*\*

The practical significance of our study lies in its implications for understanding market irrationality and the effectiveness of price competition policies. It underscores the need to improve consumer decision-making, especially in industries where service quality is not easily evaluated.

\*\*Conclusion\*\*

In conclusion, our research through a theoretical model has shown that market competition may not always reduce the negative impact on consumer welfare. It highlights the importance of enhancing consumer decision-making quality and opens up new avenues for future research, particularly in industries with challenging service quality assessments.

Thank you for your attention, and I am now open to any questions you may have.

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