

## Case Study: Ethics in Research - The Dilemma of Dr. Sarah Reynolds

### Background:

Dr. Sarah Reynolds is a respected scientist working at a prestigious university. She has spent the last five years researching a new drug that could potentially treat a rare and debilitating disease. Her work has been funded by a major pharmaceutical company, which is eager to bring the drug to market. Dr. Reynolds has published several papers in high-impact journals, and her preliminary results are promising.

### The Dilemma:

As Dr. Reynolds is preparing to submit her latest research findings for publication, she encounters a problem. During her final analysis, she notices a set of data points that contradict her earlier findings. These data points suggest that the drug might have serious side effects in a small subset of patients. The effect is not statistically significant, but it is enough to raise concerns.

Dr. Reynolds is under intense pressure from the pharmaceutical company to publish positive results. They have invested millions of dollars in her research, and their financial success depends on the drug's approval. Additionally, Dr. Reynolds is up for tenure, and her career advancement depends on her ability to publish groundbreaking research.

She faces several choices:

**1. Ignore the Contradictory Data:** Dr. Reynolds could exclude the problematic data points from her analysis, arguing that they are statistical outliers and not representative of the overall findings. This would allow her to publish her results and maintain her relationship with the pharmaceutical company.

**2. Include the Data with a Caveat:** She could include the contradictory data in her publication but downplay its significance. This might still allow her to publish her findings while acknowledging the potential side effects in a less alarming way.

**3. Report the Findings Honestly:** Dr. Reynolds could report all of her findings, including the contradictory data, even if it means the pharmaceutical company might lose interest in the drug, and her chances of getting tenure could be jeopardized.

**4. Seek a Second Opinion:** Dr. Reynolds could consult with a colleague or a bioethics committee to get an outside perspective on how to handle the data.

### **Ethical Questions:**

- What is Dr. Reynolds's primary responsibility: to the pharmaceutical company, to her own career, or to the broader public?
- How should she balance the potential benefits of the drug against the possible harm it could cause to patients?
- Is it ethical to exclude or downplay data that contradicts her hypothesis, even if it could have significant implications for patient safety?
- How might the pressure to secure tenure or maintain funding influence her decision-making process?
- What role should transparency and honesty play in her decision, and how might her choice impact the trustworthiness of the scientific community?

### **Possible Outcomes:**

- If Dr. Reynolds decides to report the contradictory data honestly, the drug might not move forward in the approval process, but she maintains her integrity and contributes to a transparent scientific process.
- If she downplays or ignores the data, the drug might reach the market, but patients could suffer from unforeseen side effects, and her reputation could be damaged if the truth comes to light.

**Discussion Points:**

- Discuss the ethical principles involved in this case, such as beneficence, non-maleficence, autonomy, and justice.
  - Explore the potential long-term consequences of each choice for Dr. Reynolds, the pharmaceutical company, the scientific community, and patients.
  - Consider the role of peer review, transparency, and ethical oversight in research.
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This case study is designed to provoke thoughtful discussion on the ethical dilemmas that researchers may face, especially when their professional goals and responsibilities to society come into conflict.