

Recruitment

- Informed Consent
 - issue: Teenagers' intelligence and judgment have not fully developed, making it difficult for them to fully understand the research content and purpose. Additionally, people with eating disorders may have certain psychological problems. They are prone to emotional fluctuations and can easily be influenced to make irrational decisions.
 - mitigation strategy: Seek the consent of teenagers' legal guardians by explaining plainly the research purpose to them, i.e., to help regulate disordered eating using an app. In addition, each time their social networks are monitored, the adolescents themselves must be informed.
- Vulnerable Participant Groups
 - issue: Teenagers with disordered eating are a high risk group because they are usually accompanied by certain psychological issues, which means the research may unintentionally distress them. Also, they might be too young to be aware of and thus to protect their legal interest.
 - mitigation strategy: Reduce the time spent monitoring their social media to alleviate psychological stress. It is advisable to hire a clinical psychologist in the research team to help address mental health issues. Regularly inform guardians about the situation to ensure that teenagers' legal rights are protected through guardians.

Data collection

- Invasion of Privacy
 - issue: The log data of social media and communication apps often involves much personal information, including user's identity and location. It may also contain sensitive details about user's family and friends. The voice diary may involve teenager's health information. If such data is exposed, it could damage both reputation and property.
 - mitigation strategy: In log data collection, only essential information directly related to the research objective will be gathered. For example, data on the duration and frequency of social media usage will be collected, while specific browsing content will not be recorded. Real identities will be replaced with randomly generated IDs. In voice diaries and interviews, any direct identifying details will be censored. Once data analysis is complete, all raw data will be promptly deleted.
- Physical or Psychological Harm
 - issue: Teenagers with disordered eating are very sensitive to psychological stress, so monitoring their social media and communication apps can cause certain psychological harm.
 - mitigation strategy: Limit the scope of monitor to only the duration and frequency of usage instead of the specified content. The duration of the monitor must be shortened as well.

Data analysis

- Ethical Harm Caused by Misinterpretation of Data
 - issue: Misinterpreting positive media guidance as negative—such as viewing fitness media and apps as factors worsening health conditions—can lead to app’s frequent interventions. Excessive control and interference may heighten psychological anxiety, ultimately exacerbating their condition.
 - mitigation strategy: To avoid researcher bias, patient representatives should be involved in providing feedback to refine and correct the analysis results, such as their opinions on specific social media.
- Selective Reporting Bias
 - issue: The impact of social media on disordered eating has yet to be widely recognized. Instead of first establishing this connection, the team directly attempts to prove that social media intervention is effective in treating the condition. If the collected data fails to fully support this hypothesis, e.g., reducing social media use may benefit some patients, but it has no significant effect on others, researchers may intentionally report favorable data while concealing unfavorable results.
 - mitigation strategy: Ensure that the research sample includes patients with different severity levels and types of disorders, such as both anorexia and bulimia. Invite another department in the company to supervise data analysts to ensure all results are reported fairly.

Dissemination

- Selective Promotion
 - issue: The marketing team, in order to promote the product, may selectively report data analysis results, such as highlighting the positive effects of the intervention on the condition while concealing the psychological anxiety caused by the intervention.
 - mitigation strategy: Have the research team and the research subjects jointly review the marketing team’s campaign to ensure the plan is honest and free from manipulation.
- Physical or Psychological Harm
 - issue: For commercial reasons, the marketing team may use labeling language in advertisements, such as referring to groups like ‘teenagers with eating disorders’ or ‘anorexic girls’. This can further deepen the public’s stereotypes about patients and cause feelings of shame and anxiety, leading to further harm for them.
 - mitigation strategy: Use neutral language—for example, say ‘improve distorted eating perceptions’ and ‘cultivate healthy eating habits’ instead of employing clinical terms outright. Additionally, involve patients in the creation of advertisements so they can monitor the promotional content and provide feedback based on their own experiences.