and potentially reinforce their vulnerable thoughts leading to concerning consequences.

The objective of this study is to review existing evidence for harmful effects of AI chatbots on people with serious mental illness (SMI).

Methods. We conducted a review of existing evidence in five databases for relevant studies. The search sources were 4 bibliographical databases (PsycINFO, EMBASE, PubMed, and OVID), the search engine "Google Scholar" and relevant grey literature. Studies were eligible if they explored the role of AI and related technology in causing harm in those with SMI.

Results. Initial searches constrained the scope of review to the harmful effects of AI use in mental health and psychiatry and not just the association with crime due to very limited existing data.

Conclusion. Whilst current AI technology has shown potential in mental healthcare, it is important to acknowledge its limitations. At present, the evidence base for benefits of AI chatbot in mental healthcare is only just getting established and not enough is known or documented around the harmful effects of this technology. Nevertheless, we are seeing increasing cases of vulnerable mental health patients negatively influenced by AI technology. The use of AI chatbots raises various ethical concerns often magnified in people experiencing SMI. Further research will be valuable in understanding the ramifications of AI in psychiatry. This will also help guide the developers of this important and emerging technology to meet recognised ethical frameworks hence safeguarding vulnerable users.

The Gut-Brain Connection: Do Gut Bacteria Play a Role in the Development of Dementia? A Systematic Review

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Aims. Dementia is a debilitating disease with multiple potential causes, no cure and rising incidence. New studies suggest that gut bacteria not only aid in the digestion of bowel products but also other bodily functions such as immune systems and relaying messages to the brain. This review aims to examine the potential link between gut microbiota and dementia by performing a systematic review to assess whether gut bacteria play a role in the development of dementia.

Methods. The systematic review was designed and conducted according to PRISMA guidelines. A modified PICO model was used to perform a literature search in Medline, CINAHL PLUS and APA PsychInfo databases. The search identified 401 articles, 49 of which met the predefined inclusion criteria. Twenty-one final studies were included in the results; 14 cross-sectional, two cohort, three case-control, one randomised control study and one case report. The reviewer extracted and analysed data from these studies for quality using the AXIS and CASP tools. A narrative synthesis of the results was performed due to the heterogeneity of the data.

Results. Individuals with dementia have lower microbial diversity than healthy controls, including changes in specific bacterial taxa, pro-inflammatory and anti-inflammatory balance. The results of the review were subdivided into four identified themes which helped further identify that microbial metabolites, diet and gastrointestinal disease can also influence the composition of gut microbiomes and, therefore, the development of cognitive impairment and dementia.

Conclusion. This systematic review found a link between gut bacteria, bacterial metabolites, gastrointestinal health, diet, and dementia. Although the studies were mostly observational, they suggest that gut microbiota can affect brain function through dysbiosis, which can lead to neuroinflammation and dementia. More research is needed to confirm a causal relationship, but targeting the gut microbiota could be a potential therapy for MCI and AD. Innovative strategies may help combat the growing challenge of dementia.

Understanding the Pro-Ana Subculture: Illness, Sickness or Choice

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Aims. This digital ethnographic study explores the varying perceptions of anorexia within the pro-anorexia (pro-ana) subculture by utilizing Professor Marinker's framework of disease, illness, and sickness to qualitatively analyse how individuals within this community interpret anorexia as a personal experience, a societal role, or a deliberate choice.

Methods. This study examines insights from the pro-ana community, obtained through pro-ana spaces on social media platforms and dedicated pro-ana online forums contributing to understanding their viewpoints on anorexia. Drawing from established literature on anorexia nervosa and the pro-ana subculture, this study employs a qualitative analysis of online pro-ana spaces, examining discussions, narratives, and beliefs shared within these communities. The study also integrates historical perspectives, cultural critiques, and psychological theories to offer a comprehensive understanding.

Results. The pro-ana subculture presents diverse perspectives on anorexia, challenging traditional definitions of illness and sickness. Some individuals view anorexia positively, perceiving it as a means of discipline and self-improvement. Cultural and historical influences, including the feminine expectation, the normalization of the disordered eating habits of the 'gym bro', and societal beauty standards, further shape perceptions within the pro-ana community. There is some debate on how the media influences the proliferation of eating disorders and the evolving definitions of anorexia – including the introduction of atypical anorexia. There is also an ascetic spirituality associated with anorexia, which can be seen as a matter of faith or delusion.

Conclusion. The concept of anorexia within the pro-ana subculture challenges traditional definitions of illness, sickness, and choice. This study highlights the cultural, historical, and gendered dimensions influencing these perspectives. Understanding this