## Gut Microbial Effect on Mental Health - Abstract

There is a growing body of evidence that supports a connection between gastrointestinal disease and mental illness, as well as the bi-directional effect of the gut-brain axis. Recent research supports the theory that bacteria in the gut also affects this gut brain axis and can impact our mental health. However, education on this topic for psychiatric mental health nurses is limited.

Bacteria in the gut have been shown to produce neurotransmitters as found in the brain and in the antidepressants that psychiatric nurses use daily (Dinan, Stilling, Stanton & Cryan, 2019). Additionally, these same antidepressants have been shown to alter gut the microbiota (Lukic, Getselter, Ziv, Oron, Reuveni, Koren, & Elliot, 2019). This knowledge is contributing to practice changes that allow for the integration of GI care and mental health care.

The current model of care is for primary care to address physical health needs, such as GI disease, while the psychiatric specialist addresses mental health needs. As we move towards a more integrated model of care, it is critical that the psychiatric nurse understand not only the gastrointestinal system, but the gut-brain axis and how the ingestion of bacteria and development of bacteria in the gut affects mental health.

This review aims to inform psychiatric nurses of the established research on the effects of the gut microbiota on mental health. Nurses will receive the most up-to-date practice recommendations for the integration of gut care to positively impact the mental health of their patients.