The Mind-Body Interaction: An Exploration Through IBS

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"What happens if the stressful experience becomes internalized?"

There is a critical means by which our moods, attitudes and emotions have a physical affect our bodily functions; this relation is defined as psychosomatic. You have perhaps noticed that some people seem to get sick during exams or tough assignments. Have you ever experienced it yourself? An increase in external non-physical stress leads to an increase secretion of the stress hormone cortisol. Primarily, cortisol prepares the body to respond to physical stress (i.e. being attacked by a bear) however, there is a secondary effect that weakens the immune system. And thus, people with a weakened immune system become ill. Under these conditions, homeostasis, which is the body's maintenance of its internal environment, falls into disarray. Any stressful experience has the potential to disrupt this unconscious regulation.

When we get sick, as we all unfortunately do, the simplest and most rational conclusion we come to is that we need to get better in order to carry on with life. How is this accomplished? Simply walk to the nearest drug store, buy cold medicine, take the necessary dosage for a week or so and wait for the medicine to work. This process is so easy that it becomes second nature. We are simply treating the symptoms of illness (i.e. the cold); however, it would be far more effective to treat the cause. In this hypothetical case of the student during midterm season, the cause is the stress of upcoming exams. Now consider the situation where the stressful experience becomes internalized. What happens then?

When stress manifests internally, the symptoms are no longer minor nuisances, but rather serious health complications. A great exemplar of an illness with an internal locus is Irritable Bowel Syndrome (IBS). IBS is a disease of the gastrointestinal tract, which is characterized by altered motility in the tract itself in addition to bloating, straining, and abdominal discomfort. While IBS is a general term for a number of different symptoms in the gut, there are three distinct forms, which are noted. There is IBS-C, which is characterized by a high level of constipation, IBS-D in which the patient suffers from excessive diarrhea and IBS-A, which includes symptoms of both IBS-C and IBS-D. Current research suggests that all three forms are just as prevalent. Although the clinical presentations of these similar disorders vary, they all have a common cause: physiological changes in the gut due to a poor mental state (Malagelada, J.R., 2006).

"... the mind can impose a real physiological change on the body."

By mental state we are of course referring to an individual's psychological well being in a general and encompassing way. Poor mental states are typically characterized by depression, anxiety, stress, and panic and for patients with IBS, some if not all of these symptoms are present. These conditions can at times occur through current issues in the patient's life whether it is work or school related, or even personal problems with family and friends. However, in a majority of cases, we see that a highly traumatic experience is the root cause of the psychological problems that lead to IBS. In most cases, this event is abuse - be it emotional, verbal, physical or sexual. Moreover, this abuse occurs when the patient is young and he or she lacks the proper coping mechanisms. The failure to process the abuse in a constructive and cathartic way is a keystone in the development of this psychosomatic disease. Timeframes for onset vary, but there are often years of separation between an incident and the first symptoms of IBS. Adults with IBS can have their root cause traced back to childhood. Treatment in these cases become difficult since the abuse is ingrained in a patient's psyche and the symptoms are further exacerbated by the stressors of adult life.

While discovering the causes of IBS are difficult, there have been a number of advances in understanding how psychology is impacting the gut. We aim to note that the preceding effects of psychology induce these physiological changes – not the other way around. Given that, we see that the hallmark of IBS is drastic change in not only gastrointestinal functionality but also anatomy. Dr. Jean Saleh, a gastroenterologist at St. Luke's Hospital in New York City, talked not only about functional changes, but also of the presence of a gap between cell layers in the GI tract (Saleh, 2013). This gap causes a backflow of viruses, bacteria, proteins, and large biomolecules, which would otherwise be absent from body tissues. Together, these substances provide a compounded effect and thus lead to some of the symptoms of IBS. The gap, which can only be observed via electron microscopy, is caused by the lowered expression of the protein occludin, which functions to close this gap. Although there is no direct evidence to suggest that traumatic experiences affect occludin levels in the body, there is also a lack of evidence indicating that there is no correlation whatsoever.

Much of what we know about IBS today is due to the ongoing research in the field. Just a few years ago, the disease was

not very well understood and psychosomatic connections were unclear. People struggling to have regular, consistent bowel movements were treated as neurotics, which ultimately led to dismissal or a mismanagement of treatment (Saleh, 2013). The key turning point of IBS treatment came with the creation of the 'Rome Conferences', which were a series of gatherings for gastroenterologists from all over the world whose goal was to holistically evaluate the symptoms of IBS and find the root, systemic causes. Structured treatment plans were devised and standardized and by the third conference, the full scope of IBS was realized and it was no longer seen as just a functional issue of the GI tract.

"As a result, there are years of separation between incident and the first symptoms of IBS."

Today's treatment options are much more comprehensive than those previously available. Dr. Saleh maintains that a strong relationship with a healthcare provider in addition to constant communication and dialogue can do wonders. Having a medical professional to talk to ultimately means involving a psychiatrist and Dr. Saleh notes that he usually sees patients with a psychiatrist present. The psychiatrist acts in a support capacity and often suggests individual therapy, group therapy, and if needed some medications to treat the mental component of IBS. According to Saleh, there is a cathartic effect that benefits the patient greatly: his clinic has a track record of 30-40% success rate of all patients since the clinic's opening. The fact that there is successful treatment in Dr. Saleh's clinic is not an isolated incident [KW4]. A study conducted by Creed et al. found that patients with severe IBS benefited the most when combining psychotherapy with antidepressants (2003).

Considering the long lag period between traumatic incident and the completion of a treatment cycle, we see IBS treatment as a slowly evolving field; the 30-40% success rate is bound to increase, but at a gradual pace. Additionally, new information and treatments of IBS will bring doctors to a more complete understanding of this systematic dysfunction. New information about the physical manifestation of IBS must be discovered in tandem with finding new treatment methods. This starts at the doctor-patient level. One discovery is for biologists and pharmacologists, while the other depends on the doctor-patient interaction. This is true not only for IBS and doctors practicing in the United States but also for a myriad of diseases and doctors all over the world. Advancing the practice of medicine on every front will give a new understanding sooner rather than later.

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