The Healing of the Paralytic-A Case of Functional Neurologic Disorder?

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Slowly, carefully the unnamed man is lowered down in the air. The display causes a stir in the crowd, but his friends persist. His friends are loyal. They are confident. They know Jesus can heal him.

In front of his community, the man's disability is on full display. Suddenly he is down on the ground, in front of the Teacher. Then the unexpected. Jesus speaks the words, "Son, your sins are forgiven."[1]

The story of the paralytic has been told and retold over time. Three gospels tell the story of the man with friends who take him to Jesus. Mark tells the story in his urgent, dramatic style, with three "firsts." Jesus forgives the man's sins, notable as this is the first time Mark documents the act of forgiveness. Jesus declares himself the Son of Man for the first time. Finally, He goes toe to toe with the "teachers" for the first time. Teachers who are watching and judging. In this moment Jesus becomes wanted, not only by the crowd, but by the ruling parties, sealing his death sentence.

We are taught that Jesus heals the paralytic to teach the teachers. Little thought is given to the paralytic. *Why is this the only documented miracle where Jesus first forgives sins?* The scripture describes Jesus being moved by the faith of the man's friends, and because of this He forgives the paralytic. Perhaps instead forgiveness is the key to healing his paralysis.

FUNCTIONAL NEUROLOGICAL DISORDER

Craig came to the Emergency Department by ambulance. A 55-year-old man with hypertension and diabetes, his day was going well until he dropped his coffee. He then had trouble speaking. His wife called 911, and now he finds himself surrounded by doctors, nurses, and people that he doesn't even know why they are there. He isn't able to talk, and the right side of his body isn't working like it should. People are pinching him, poking and prodding. Craig has a scan of his brain, and now the doctor is discussing with his wife about a "clot buster." Craig can't talk but he hears his wife agree. A medication is put in an IV in his arm. He is now whisked up to the ICU, where he stays for 24 hours.

Craig begins to improve, but not by much. He gets another scan of his brain. This one is more specialized, an MRI (Magnetic Resonance Image). Craig and his wife wait anxiously for the results. The doctor comes in and says, "Good news! There is no stroke on your MRI. Your brain is normal for your age! What is interesting is that you still haven't recovered. Sometimes we see this when a person has a 'stress reaction.' How are you feeling? What is going on at home? Do you have any stressors?"

Craig suddenly goes from a critically ill patient to a patient being investigated for psychological causes of his weakness. This is confusing. The doctor reports that the "outcome is good with physical therapy and psychiatry evaluation." Over days Craig improves and goes home. He never fully understood what happened to him, and no one explained it well. He knows he was given a diagnosis of Functional Neurological Disorder, but he doesn't like the feeling that everyone thinks he is "crazy."

Functional Neurological Disorder (FND) has been known by many names: conversion disorder, psychologic disorder, or dissociative disorder. It is a neurological disorder with roots in psychiatry. FND is neglected, almost

[1] Mark 2:5, NIV.

disparaged, in neurology. Once the patient is diagnosed, they are sent away to psychiatry, ostracized by those that diagnosed them. FND, a neurological disease, is not treated by neurologists.

But what is FND? Functional Neurological Disorder is a neurological disease where the nervous system does not *function* properly, but without structural damage. The nervous system is undamaged, yet it is not working. I often tell patients that the mind and the brain are in the same place, and this is a disorder of the mind, which we cannot see with our diagnostic testing. Another analogy sometimes used is that computers can have hardware and software problems, and this is a "software" problem.

Neither of these descriptions fully capture the disease. FND has many presentations. The most frequent are seizures (called psychogenic non-epileptic seizures, or PNES, which is the main FND described in literature[2]) and movement disorders. Movement disorders include tremors, tics, and paralysis.

FND is not a modern, western disease. Similar incidence is seen across the world[3] and history.[4] FND represents one out of six new neurology outpatient consults,[5] with an incidence of 10-15/100,000.[6] [7] Historically, FND is attributed to depression, anxiety, trauma, and stress, especially childhood trauma. However, when looking at FND, 50% of patients have no history of stress or trauma.[8] Interestingly, women make up 60-80% of cases.[9]

There may be a genetic predisposition. One study[10] found the G703T polymorphism of the tryptophan hydroxylase 2 gene predisposed to FND, especially when combined with trauma. These patients seem to have a decreased connection between the right amygdala and the middle frontal gyrus, essential structures in memory, and processing memory.

Finally, FND is known to coexist with structural neurological disorders such as epilepsy, Parkinson's disease, and migraine. It is common for a patient with epilepsy to also have psychogenic non-epileptic seizures. This may be due to the changes in the brain seen in these disorders and/or the stress neurological disorders cause. Few neurological disorders are cured; they are managed, and even then are progressive.

Historically physicians have touted excellent prognosis for FND. It is common to hear, "Good news! Nothing is broken. You will recover fully." Actual data tells a different story, with only 20-50% of patients achieving remission.[11]

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[2] Hallet M, Aybek S, Dworetzky B et al. Functional Neurological Disorder: New Phenotypes, Common Mechanisms. Lancet Neurol. 2022 June ; 21(6): 537–550. doi:10.1016/S1474-4422(21)00422-1.

[3] Kanemoto K, LaFrance WC, Duncan R, et al. PNES around the world: Where we are now and how we can close the diagnosis and treatment gaps-an ILAE PNES Task Force report. Epilepsia Open 2017; 2: 307–16.

[4] Stone J Neurologic approaches to hysteria, psychogenic and functional disorders from the late 19th century onwards. Handb Clin Neurol 2016; 139: 25–36.

[5] Carson A, Lehn A. Epidemiology. In: Handbook of Clinical Neurology Vol 139: Functional Neurologic Disorders. 2016: 47–60.

[6] Villagrán A, Eldøen G, Hofoss D, Ingvar M, Duncan R. Incidence and prevalence of psychogenic nonepileptic seizures in a Norwegian county : A 10-year population based study. 2021; 1–8

[7] Gargalas S, Weeks R, Khan-Bourne N, et al. Incidence and outcome of functional stroke mimics admitted to a hyperacute stroke unit. J Neurol Neurosurg Psychiatry 2017; 88: 2–6.

[8] Brown RJ, Reuber M. Psychological and psychiatric aspects of psychogenic nonepileptic seizures (PNES): A systematic review. Clin Psychol Rev 2016; 45: 157–82.

[9] Baizabal-Carvallo JF, Jankovic J. Gender Differences in Functional Movement Disorders. Mov Disord Clin Pract 2020; 7: 182–7.

[10] Spagnolo PA, Norato G, Maurer CW, et al. Effects of TPH2 gene variation and childhood trauma on the clinical and circuit-level phenotype of functional movement disorders. J Neurol Neurosurg Psychiatry 2020; 91: 814–21. [PubMed: 32576

[11] Gelauff J, Stone J. Prognosis of functional neurologic disorders. Handb Clin Neurol 2016; 139: 523–41.

Patients with FND are not feigning or acting. This is a legitimate, poorly understood neurological disorder that also crosses into psychiatry. FND is associated with stigma, and patients are often "discharged" from their neurologist and told there is nothing to be done except follow up with mental health.

MEDICAL ANTHROPOLOGY: SICKNESS

Modern medical professionals struggle to understand the disease, healing, and miracles described in the Old and New Testaments. This is through our modern, western lens where we examine "health." A core truth of my medical practice, one I try to instill in trainees and doctors I supervise, is "We only know what we know." While obvious, it emphasizes the limitations of perception. My perception is medically rooted in modern science with a western world view.

In 1948 the World Health Organization wrote in their constitution, "Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity."[12] Western medical practitioners strive to eradicate disease, but this definition embraces the holistic view. Health is only understood through the culture in which it exists.

Stepping back even further, we look at sickness, which is the experience of disease and illness. Disease and illness are similar, yet different. Arthur Kleinman lays out some basic definitions.[13] [14]

Disease is an abnormality of a normal functioning system, a biomedical *change*. This is an explanation of what is wrong. Similarly, modern medicine views disease as something to be cured, caused by a virus, bacteria, or, in a modern sense, genetic abnormalities. In contrast, illness is the *experience* of sickness.[15] It is the experience of the *person*, and healing only occurs when the sick person says it has.[16] It is possible to eradicate the disease but not heal the person. It is also possible to heal the person but the disease still be present. Neither disease nor illness are realities, but an explanation of existence.

Kleinman[13] lays out five questions that explanatory models of illness try to answer:
1. What is the etiology (its origins)?
2. What is the time and onset of symptoms?
3. What is the pathophysiology?
4. What is the course of sickness?
5. What is the treatment?

In looking through my lenses of a modern, western-trained physician, I was trained to take a history, examine, assess, and plan. A physician is a detective. I find clues (signs and symptoms) and fit this information into my knowledge of disease. Early in training/career physicians can become frustrated when the patient in front of them doesn't "fit." Symptoms not explained or that aren't known in "literature" must be false. As one grows, the practitioner recognizes that the patient's experience rarely fits into published literature.[17] Best practice is to look at both disease and illness.

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[12] The Constitution was adopted by the International Health Conference held in New York from 19 June to 22 July 1946, signed on 22 July 1946 by the representatives of 61 States. https://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf?ua=1
[13] Kleinman, Arthur. 1978. "Problems and Prospects in Comparative Cross-Cultural medical and Psychiatric Studies." P. 407-440 in Kleinman et al, *Culture and Healing in Asian Societies*.
[14] Kleinman, Arthur. 1980. *Patients and Healers in the Context of Culture*. Berkeley; Univ. of California Press.
[15] Worsley, Peter. 1982. "Non-Western Medical Systems." *Annual Review of Anthropology* 11:315-348.
[16] Etkin, Nina L. 1988. "Cultural Constructions of Efficacy." p. 299-320 in van der Geest and Whyte.
[17] The stages of growth of a physician are very similar to the stages of Faith described by James W. Fowler in his book *Stages of Faith: The Psychology of Human Development and the Quest for Meaning*. Stage 1—Intuitive Projective Faith is similar to a

MEDICAL ANTHROPOLOGY: MEDITERRANEAN WORLDVIEW

In the Mediterranean view of Jesus's day illness was the focus. The concept of disease did not yet exist, and would not begin to form until Girolamo Fracastoro in the 16th century postulated it, and wouldn't even be supported until Athanasius Kircher first saw organisms through his microscope in the 17th century. Even then it would be two hundred years until disease theory was widely accepted, thanks to the work of Louis Pasteur and Robert Koch.

To understand Jesus' miracles of healing we must look at the culture. John Pilch[18] notes that in the Mediterranean world "One's state of being was more important than one's ability to act or function" and "To be healed is to be restored to one's social network." Illness is a separation of this social network. Men suffered illnesses of body, separating them from work and their place in society,[16] such as paralysis, seizures, and leprosy. Women's illnesses caused separation from the domestic realm and from family.[16] For example, Peter's mother-in-law suffered from a fever. Jesus healed her and she rose up and started fixing food.[19] Biblical peoples were dyadic personalities that operated within a social kinship structure. Without kinship people were lost and disconnected. Think of the man at the pool of Bethesda who had "no one to help him into the waters."

When examined through this lens Jesus heals and restores people to their communities and social network.[16] The social network was their lifeline. The demon possessed returned to their community. The dead rose and returned to their family. Picture the widow of Nain whom Jesus had pity had on.[20] She had no one; her son was her last link to kinship. Jesus restored her and her son to the community at large.

This concept is foreign to Western society, where decisions are made with an individual mindset. One can live independently of family, community, and even society. This was not possible in Mediterranean culture. A single woman did not exist, and would be ostracized and ignored.

THE HEALING

With this knowledge, we return to Mark.[21] I am partial to this version of the story because of the richness of detail:

> Some men came, bringing to him a paralyzed man, carried by four of them. Since they could not get him to Jesus because of the crowd, they made an opening in the roof above Jesus by digging through it and then lowered the mat the man was lying on. When Jesus saw their faith, he said to the paralyzed man, "Son, your sins are forgiven."

Here we have our patient, yet his friends are the subject. Through his friends he retains *kinship*. Jesus was moved by the *kinsmen's* faith. We now know that Jesus was going to heal him, to restore him to his community. Yet Jesus looks at him and says the unexpected: "Son, your sins are forgiven." Jesus knows full well what this statement will

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first or second-year medical student. They are acquiring knowledge and trying to learn everything they can. Stage 2—Mythic-Literal Faith is similar to a third-year medical student, and possibly intern. They know if you have an infection you give the right antibiotic and the infection is healed. Stage 3 –Synthetic Conventional Faith represents a resident and early doctor. Conflicts when beliefs are challenges are often ignored because it represents a threat to the identity. If a patient doesn't fit into the diagnosis it is the patient which is wrong, not the medical system or diagnostic criteria. Some physicians never leave this stage. The stages after (4-6) are when physicians grow and realize that not everything is known, and patients may have experiences that do not fit common knowledge.

[18] Pilch, Joh J. 2000. *Healing In the New Testament; Insights from Medical and Mediterranean Anthropology.* Fortnight Press.

[19] Matthew 8:14; Mark 1:30; Luke 4:38.

[20] Luke 7:11.

[21] Mark 2:35, NIV.

unleash. He's early in His career. Remember, in the previous chapter He silenced demons so they would not declare who He is. So why now does He take this leap?

Forgiveness is what heals the man and will restore him. Approximately half of patients with FND have some form of trauma/stress, thought to be childhood abuse or trauma. Children internalize and assume they caused whatever trauma they experience.

It is striking that the paralytic says nothing. Many patients with FND are detached, not part of their own experience. Sometimes they are described as blase, accepting their fate.

A hush falls over the ever-present crowd. This is the first time Jesus forgives sins.

> Now some teachers of the law were sitting there, thinking to themselves, "Why does this fellow talk like that? He's blaspheming! Who can forgive sins but God alone?"
>
> Immediately Jesus knew in his spirit that this was what they were thinking in their hearts, and he said to them, "Why are you thinking these things? Which is easier: to say to this paralyzed man, 'Your sins are forgiven,' or to say, 'Get up, take your mat and walk'? But I want you to know that the Son of Man has authority on earth to forgive sins." So he said to the man, "I tell you, get up, take your mat and go home."He got up, took his mat and walked out in full view of them all[22].

In this moment Jesus does what He let no one else do--He declares He is the Messiah. After all, isn't this why the teachers are here? Except he does it in such an unexpected, unconventional, and uncomfortable way. Jesus does not elevate by pushing others down. By becoming the Messiah He separates himself from the social network so others may rejoin it.

The paralytic heard all of this. He is forgiven, restored to the social network. *It is not his fault. He is free from his sin.* Jesus had to lay out his credentials to grant forgiveness. What comes next is easy. The man (no longer a paralytic) picks up his mat and walks out, to rejoin his kinsmen and live his life free and forgiven.

[22] Mark 2:6-12