

Hey ARTizens! During the early era of the insane asylums, the people in charge of “caring” for the patients were desperate for ways to treat mental illnesses. This was way before any kind of pills or modern therapies were available. It was also, thankfully, before the time of radical surgical interventions—which you can learn more about in some of my other videos. One of the things that the doctors of the period resorted to was spinning patients around really quickly until they threw up and/or fell asleep. And no, I’m not joking. Today we’re talking about the history of centrifuge therapy. Allow me to explain!

INTRO MUSIC

Centrifuge therapy came in many different forms in the early 1800s. The first person to suggest spinning people around in order to calm them down was probably Erasmus Darwin, who suggested it in the very tail end of the 1700s.

Darwin had a friend draw up some engineering diagrams of what such a device might look like, and he named it the “Movable Rotative Couch” (Darwin, 1801). Now that might put an image of a motorized loveseat into your mind, but it was really more of a wooden scoop, as you can see from this image.

He thought that it could be useful in putting patients to sleep in medical situations, and in helping to reduce fevers by forcing the blood to move around and by... “gently compressing the brain” (Darwin, 1801 pp 436-437; Wade, 2002, p. 647). As a neuropsychologist I feel that it is my duty to inform you that you should not compress the brain, I don't care how gentle you are.

However, Darwin never actually built a spinning device himself (Wade, 2002). That was left to someone else to try.

The first pioneer to try “spinning some loonies” as it was called by no one, was Joseph Mason Cox (Breathnach, 2010). Dr. Cox worked at the Fishponds Private Lunatic Asylum near Bristol in the UK, where he was in charge of treatment of the insane (Wade, 2005).

Dr. Cox wrote about his swinging and spinning interventions in his book called “Practical Observations on Insanity” which was first published in the year 1804. He created what would later be known as Cox’s chair, the first of the centrifuge devices and the inspiration for the others that followed (Young, 2015).

At first, Dr. Cox stuck to simple back-and-forth swinging, but eventually he switched to a specially constructed chair that spun around and around on its own axis. He claimed that this

worked better than swinging. And by “worked better” he meant that it made the patients vomit, which was seen as a good thing. But we’ll talk about that a bit later.

Unfortunately, Dr. Cox never shared an illustration of what his chair looked like (Wade, 2005). But he did describe it in some detail, explaining that it was: [comical deep breath]

“easily constructed by suspending a common Windsor chair to a hook in the ceiling, by two parallel ropes attached to the hind legs, and by two others passing round the front ones joined by a sliding knot, that may regulate the elevation of the patient when seated, who, besides being secured in a strait waistcoat, should be prevented from falling out of the chair by a broad leather strap, passed round the waist and buckled behind to the spars, while another strap to each leg may fasten it to the front ones of the chair.”

[comical deep breath]

So, what was it like to be spun on Cox’s Chair? Cox wrote:

“One of the most constant effects of swinging is a greater or less degree of vertigo, attended by pallor, nausea, vomiting, and frequently by the evacuation of the contents of the bladder” (Cox, 1811, p. 156).

“In every case it appeared that suddenly stopping the machine, when in full gyration, occasioned a very violent shock both to mind and body, as the sudden and unexpected suspension of the motion has a tendency to excite fear or terror” (Cox, 1811, p. 186).

Ah yes, therapeutic. He wrote about several people that he “treated” with his “medical device” in his “book.” Well I guess it, it is actually a book. Many of the case studies end with Dr. Cox proclaiming that his swing had cured these various people of their insanity—for example: “I had the pleasure to see him gradually improve till he advanced to perfect reason” (p. 163); “never exhibited any mark of his deplorable malady since” (p. 164); “both mind and body became perfectly reestablished” (p. 169), etcetera etcetera. We’ll talk more about these so-called cures later on, but first I want to share some of the other people who were in on this spinning trend.

Dr. Cox’s, umm, successes?, inspired others such as Dr. Ernst Horn in Germany, who you can tell was a great doctor because at one point he was forced to leave his job because he was “held responsible for the death of a female patient caused by putting her into a sack in order to calm her down.” (Harsch, 2006).

He was also what you might, but shouldn’t, call a spinner.

“Another way patients were mistreated at his hospital from today’s perspective was by use of a rotation bed (Drehbett), and later a rotating chair (Drehstuhl).” (Harsch, 2006).

The bed had a diameter of 13 feet or 4 meters. It could be rotated between 60 and 120 times per minute, and it produced 4 to 5 negative Gz as all of the blood rushed to the head of the patient. As a reminder, G-force is a measurement of acceleration relative to earth’s gravity. But that’s not really important to know right now. All that you need to understand is that G-force is not something that the human body tolerates well. 5Gz is more than enough to make many people black out. There’s a reason that people who regularly expect to undergo spinning or acceleration undergo special G-force training.

The feelings that arose as a result of being spun so fast included the following:

“shortness of breath, feelings of oppression, anxiety, difficulty speaking, feelings of being stretched headwards, fear of being catapulted by the vibrations, and an unpleasant feeling of an odd emptiness of the head” (Harsch, 2006, p. 158). Not to mention all the vomiting and vertigo.

So by now we’ve had a couch, a chair, and a bed. What’s next, a bookshelf? [Show the picture of hallaran’s seated swing] OH NO

Around the same time as the rotating bed was being used, a doctor out in Ireland was making changes to the original Cox chair. His name was William Saunders Hallaran, and this is Hallaran’s swing. Don't let the name fool you though, it spins, it don't swing. And just to be pedantic, his name was not O'Halloran as a bunch of people on the Internet somehow misspelled his name. In fact, while I was typing up this script, google documents challenged me on the spelling, claiming that it was O'Halloran’s swing. Don't worry, I’ve already issued corrections to at least five people. But for some reason none of them have replied. I can't imagine why.

Anyway, Hallaran wasn’t exactly humble about it:

“The circulating swing erected in our asylum appears to be an improvement on the model suggested by Doctor Cox. It is worked by a windlass, and capable of being revolved a hundred times in a minute” (Hallaran, 1818, pp. 94-95).

This new and improved swing could be used in either a sitting or lying down position, as shown in these images.

Hallaran used his swing for three primary purposes. The first two were “regulated according to the urgencies of evacuation or sleep. For the first, I have satisfied myself that the erect posture is preferable. Where sleep may be more immediately required, the horizontal position, continued in

a steady uniform manner, will, in a majority of instances, produce the effect” (Hallaran, 1818, p. 93).

If being spun to sleep in a hammock sounds relaxing to you, it probably was, once you got past that first part where they spun you REALLY quickly in order to, make you sleepy? I guess?

“The resultant nausea and vomiting resembled vertigo and produced surprise and some share of tranquillity followed by sound sleep that could be prolonged for eight or ten hours by a gentle rocking motion of the hammocks in a darkened room” (Breathnach, 2010).

And therein lies a potential, real, therapeutic value of gently swinging a person around, like gently rocking a baby to sleep.

But what about the third use of his swing, well... sometimes, the swing were used for fun!

“the idiots of the establishment have been permitted to use it for amusement” (Hallaran, 1818, p. 95). The word idiot, of course, has changed in meaning since then.

According to a few of my sources, these spinning devices were eventually the inspiration for amusement park rides that use spinning to amuse people. You just have to be careful not to spin them too fast, because we generally want to *prevent* vomiting these days.

So why was vomiting seen as a good thing back when these devices were invented? See, back then, there was no real consensus on what caused mental illnesses, many people thought that they were caused by bad stuff that was inside of the people’s bodies. As a result, a lot of the “therapies” at the time were designed around taking everything that was inside an insane person’s body, and putting it outside of their body, in a process called “catharsis.” Catharsis involved the heavy use of laxatives, enemas, bloodletting, and most importantly for this episode, emetics, which is a fancy term for a substance that makes you vomit (Cookson, 2012).

The devices were seen as an alternative to emetics, because they were cheaper and they could be used on patients that, understandably, refused to swallow things that were going to make them puke (Breathnach, 2010).

Dr. Cox wrote in the 1811 version of his book that “...vomiting has been long esteemed among the most successful remedies in madness, if the swing produced only this effect, its properties would be valuable... The impressions made on the mind by the recollection of its action[s] on the body is another very important property of the swing, and the physician will often only have

to threaten its employment to secure compliance with his wishes, while no species of punishment is more harmless or efficacious.” (Cox, 1811, p. 159).

In other words, Dr. Cox, and the others that followed in his footsteps, saw the devices as tools for increasing obedience. Sure, the devices were used as a form of therapy for certain manic patients or anyone displaying “raving madness” to try and calm them down, as well as on epileptics, where it... probably wasn't very helpful (Harsch, 2006). But it was also used on uncooperative patients, quiet patients, patients who refused food, suicidal patients, and a whole range of others whenever the doctors felt like it (Breathnach, 2010). Harsch writes: “It is remarkable that the centrifugation effects were expected to have a positive outcome on such a broad variety of diagnoses” (Harsch, 2006).

This unethical intervention seemed to “work” sometimes, in that it changed the minds or moods of those subjected to it. For example, as Harsch writes: “Patients who refused any food with the intention to starve changed their mind after being spun because they feared being placed on the machine again more than dying of hunger” (Harsch, 2006).

So what Dr. Cox and the others originally thought was improvement in mental illnesses of the patients, was actually just the patients lying because they didn't want to be spun anymore. In other words, the spinning devices didn't really work, but I think you already knew that. They did help calm some patients down, or at least made them easier to care for after they were exhausted from all the spinning and vomiting (Wade, 2005).

Anyway, by the mid-nineteenth century the use of these spinning devices was declining rapidly. Quote: “There was increasing skepticism being expressed about their efficacy and... increasing criticism about their ethicality” (Young, 2015). In fact, the devices were outright banned in at least one country after a number of deaths were reported (Young, 2015). What did I tell you about compressing the brain?!

And besides carnival rides, it would later inspire research into devices that would be used in medicine. For example, something called the Bárány chair is used to measure how healthy people's eye movements are. And during aerospace physiology tests, being spun around to see how well a person handles G-forces is a common test still used today (Breathnach 2010, p. 83; Winter et al., 2013). These devices, and other research, sprung out of Cox's chair and the other torturous relics of history that we have discussed today.

Thanks for watching, please subscribe to my channel and I'll continue to make interesting content. Support me on Patreon if you like what I do, and I'll see you next time.

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