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Version 1.3

Other Books By The Author



My Royal Navy Friend

My dear friend Roy decided to follow in his family's footsteps and enlist in the Royal Navy.

I wanted to maintain our friendship, to continue to support Roy, to make him laugh and to entertain him. So I came up with the idea of sending him a weekly email on random topics.

These emails were on a variety of topics, always being entertaining, sometimes being interesting, sometimes funny and occasionally being serious. My Royal Navy Friend is a copy of these emails. In total, there are 52 emails. Dispersed throughout the book are also Royal Navy facts and stories.



The Alcohol Therapy Workbook This workbook has been designed for anyone that is struggling

with alcohol or has struggled with alcohol in the past.

It is written in a Motivational Interviewing style, one of the key therapies used to support people with alcohol issues. It has been designed using a trauma-informed approach and is strength–based.

What you will find in this book is more than just worksheets about alcohol. You'll find all the tools someone needs to get into recovery from alcohol and stay there. It's a therapy-based book, not an alcohol-based book.



SpellCast - Folk Magic for the 21st Century (co-authored with Luna Hare)

SpellCast is a comprehensive compendium of spells, oils, charms and talismans. It is purely a book about magic, folk magic for the 21st century. The spells are ones that are tried and tested, with some that will stand the test of time.

In SpellCast you will read about the power of Instant Magic, of Banishment & Bindings, Blessings, Cleansing, Communication, Death, Employment, Finance & Money, Fertility, Friendship, Happiness & Joy, Health, Love & Relationships, Luck Magic, Protection, Transformative Magic and WishCraft. This book will change your life. Your life will be abundant in all meanings of the word.



Antony Simpson

Mental Health Wisdom - Developing Understand & Empathy

This book contains everything that you need to know about mental health and mental illness.

Mental Health Wisdom is divided into three sections.

Understanding is section one and is all about the facts of mental health.

In section two, Empathy Through Lived Experience, the author shares his personal experience of mental illness.

Life Hacks is section three. It's all about self-care and quick and easy ways to improve your mental health, prevent mental illness

or relapse of mental illness.

All available to buy in various formats internationally on Amazon.

If you enjoy this book please consider leaving a review on Amazon or Goodreads. Reviews are a great and free way to support the author.

DEADICATIONS

From the bottom of my heart and with eternal gratitude, I dedicate this book to:

Two incredible former Tutors of Childcare & Education at Wigan & Leigh College:

Linda Cunliffe & Brenda Nicholson.

Linda for her sage wisdom. Brenda who gave me the best careers advice I ever got -'Why don't you train to be a Nurse?' Thank You.

Everyone who has ever taught me anything about the human body (and what can go wrong with it) including: Patients & their Relatives Colleagues from all Disciplines (Past and Present) University Lecturers at UCLan Family Members Friends Talkative Strangers on Buses. Thank You.

For everyone who kindly agreed to review this book in its various draft forms and gave feedback.

Thank you, this book is ultimately much better thanks to your feedback.

To my Mum, Sarah, who should have been a Nurse. Thank you for instilling confidence in me and for your continued love and support.

To My Brother Alex: Your heart suddenly stopped when you were just 18 years old. I miss you and think of you often. It is and will always be devastating to me, how this outcome couldn't have been changed.

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Healthcare: Clinical Excellence

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Joke: Knock. Knock. Who's there? Doctor. Doctor Who.

Introduction

What amazes me, is just how many horrific ways the human body can go wrong.

As a Registered Nurse, I spent a number of years working in an Accident & Emergency (A&E) Department in a busy district general hospital. I was shocked by the number of ways the human body can go wrong on its own, without any lifestyle factors causing the malfunctions.

People who lived generally healthy lives were struck down by illness and diseases, through no fault of their own. Some conditions were curable, but most were not. For the latter, the only treatment is to manage the symptoms, prevent progression of the disease and prevent the damage caused for as long as possible.

I even got to experience this firsthand. At 21 years old, whilst a Student Nurse on placement in an A&E Department I became really unwell. I went to hospital, this time on the other side as a patient and was diagnosed with Diabetes (Type 1). Thanks immune system.

How can a complex organism, one with over 30 trillion cells, like the human body, fail in so many ways? I don't have the answer to this question.

But now I do know many horrific ways the human body can go wrong. That's what I share with you in this book.

Now, before I start. This book doesn't cover medical conditions that we cause by our own behaviour - such as overeating or not eating at all, smoking, drinking alcohol and taking drugs. It doesn't cover ultra rare diseases that affect very few people. If you want this sort of comprehensive book, go buy a medical encyclopaedia.

There is also humour spread throughout this book. This is because when suffering from a horrific body-go-wrong incident, people get to a point where they either laugh or cry. And I choose to laugh, always. Let's start with dividing the human body into systems:

- 1. The Nervous System This system consists of the brain, spinal cord and a network of nerves. I am reliably informed, by Brain Surgeons, that everyone has a brain, even those that come across like they're missing one.
- 2. The Sensory Organ System This covers the eyes, ears, tongue and nose. Our sense of touch through our skin will be covered in the Integumentary System.
- 3. The Integumentary System Consists of the skin (the body's largest organ), subcutaneous tissues, nails and hair.
- 4. The Skeletal System The skeleton including: skull, rib cage, vertebrae, etc. It includes bone marrow, as well as cartilage, ligaments and tendons.

Joke: Why did the skeleton not go Trick-or-Treating at Halloween? He had no body to go with.

- 5. The Muscular System This system includes all the muscles throughout the body.
- 6. The Lymphatic & Immune Systems These include lymph nodes spread throughout the body, the spleen and the thymus. It includes white blood cells that float around in the Cardiovascular System.
- 7. The Respiratory System This consists of the lungs and pharynx.
- 8. The Cardiovascular System This consists of the heart, veins, arteries and blood.
- 9. The Endocrine System This system is responsible for all those pesky hormones and includes the thyroid, the parathyroid and the glands (pituitary, pineal, and adrenal).

- 10. The Gastrointestinal System This system deals with input and output and includes: mouth, teeth, oesophagus, stomach, liver, gallbladder, intestines and bowel.
- 11. The Urinary System The bladder and kidneys make up the urinary system.
- 12. The Male Reproductive System This is made up of the penis, testicles, prostate and sperm cells.
- 13. The Female Reproductive System Much more complex than its male counterpart consists of the breasts, ovaries, fallopian tubes, womb and ovum cells.
- 14. System Wide Wrongs This is basically any condition or disease that affects more than one system in the body; or where I couldn't squeeze it into any other chapter.

I have used these systems as chapter titles and we'll work through them together.



A human cell.

The final section of the book - Healthcare: Clinical Excellence contains a number of Appendices that give vital knowledge for Healthcare Professionals. This section of the book is an opportunity to learn from my experience as a Registered Nurse who has worked in a wide range of settings including A&E Departments.

Chapter 1 - The Nervous System



The brain is the boss of everything. It tells the heart to beat and the lungs to breathe. It also controls other countless involuntary processes.

The brain is responsible for our thoughts and feelings. It enables speech, eating, and exercise. It causes pain to tell us that something is wrong. It does everything. But the brain can go wrong in so many ways.

There is a distinction in modern medicine between physical and mental illness. But let us be clear: **mental illness is physical illness.** Mental illnesses are caused by neurons (brain cells) not working as they should.

Brain scans are becoming more common and we are learning that different areas of the brain are active and inactive in mental health conditions such as anxiety, bipolar, depression, obsessive compulsive disorder (OCD), schizophrenia and personality disorders. That being written, our understanding of the brain and how it functions is extremely limited.

Anxiety can be an acute or chronic condition. It is often described as uncontrollable worrying and feelings of dread. It isn't rational and can be triggered at any time. Even by something an individual has done a million times before without any anxiety. In severe cases it can be debilitating, affecting activities of daily living and causing panic attacks.

When we weren't at the top of the food chain, a bit of anxiety kept us alert to potential predators. But these days it seems to cause more harm than good. Anxiety causes more than just worry and dread, it causes physical symptoms including: sweating, increased heart rate, hot flushes and nausea. Treatments for anxiety include anti-anxiety medication such as Citalopram and psychosocial therapies such as counselling and cognitive behavioural therapy (CBT).

Depression is a persistent low mood for a significant period of time. A person with depression will experience a wide range of emotions including: sadness, hopelessness, unhappiness and despair. Physical symptoms include exhaustion, difficulty sleeping, difficulty concentrating and short term memory loss. Depression can be triggered by life events or without any obvious trigger.

Treatments for depression include antidepressant medications and psychosocial therapies such as counselling or CBT.

Obsessive Compulsive Disorder (OCD) is a condition in which people with it have repetitive thoughts or behaviours. There is no cure for this illness, but people with OCD can learn to manage their symptoms through CBT. Sometimes, antidepressants are also used.

Bipolar is a mood disorder characterised by significant changes in mood, sometimes without any discernible trigger. The cause of bipolar is unknown and there is no cure. People with bipolar have episodes of high (or manic) mood (often where they become psychotic - losing touch with reality), episodes of low (severe depression) mood and episodes of feeling okay or numb, where they feel nothing.

Treatments for bipolar include a wide range of medications including antidepressants and antipsychotic mood stabilisers. Sometimes, counselling and CBT can be useful for helping a person with bipolar to cope with the mood states.

Schizophrenia is a severe mental illness. Symptoms include hallucinations, delusions, loss of touch with reality (medical term: psychosis) and being unable to complete activities of daily living. The exact cause of schizophrenia is unknown. There is no cure for schizophrenia. Treatment includes a range of antipsychotic medications and CBT. Personality Disorders is an umbrella term to describe a range of disorders where the brain operates differently. People with a personality disorder think, feel and often behave very differently than the general population. The cause of personality disorders are unknown and there are no cures for personality disorders.

The specific type of Personality Disorder depends on the symptoms a person experiences. Medications (including antidepressants and antipsychotics), along with talking therapies (counselling, CBT and other psychosocial interventions) are used to manage the symptoms. However there is evidence suggesting that these are less effective than in people with other mental health illnesses.

People with Personality Disorder are at a significant risk of harm from themselves. Sadly, people with personality disorder often take their own life either intentionally or accidentally before the age of 40 years old.

Attention Deficit Hyperactivity Disorder (ADHD) is a neurological condition where the brain is structured differently to that of other people. The exact cause of ADHD is unknown, but sometimes it runs in families suggesting a genetic link. Symptoms of ADHD include impulsiveness, hyperactivity and difficulty concentrating. ADHD has a significant impact on activities of daily living and is usually picked up during childhood or when children start school.

If ADHD is left untreated it can have a significant impact on attainment and social relationships. ADHD is usually treated with medications, often stimulants which help an individual with ADHD focus.

Onto the 'physical' ways the brain can go wrong. The first is Acoustic Neuroma, it can also be called Vestibular Schwannoma. Acoustic neuroma (medical term) is a non-cancerous growth in the brain. The cause of these growths are unknown, they only grow on the nerves involved with hearing and balance. They don't spread to other parts of the body.

People with Acoustic Neuroma have problems with their hearing (including loss of hearing, hearing sounds coming from within the body and feeling the sensation of moving or spinning). A particularly large growth can also cause regular headaches, problems with vision (blurred or double vision), changes to voice, difficulty swallowing and numbness, weakness or pain to one side of the face. It can cause an unsteady gait, mimicking a drunk person's walk.

It is diagnosed through the presence of some of the symptoms above, with a Magnetic Resonance Imaging (MRI) scan of the brain. If the Acoustic Neuroma is small with a minimal impact on the person's life, a specialist doctor, known as a Neurologist, will monitor with regular MRI scans.

If a MRI scan shows a larger Acoustic Neuroma, surgery to have it removed is the only current treatment. Like all surgery, it is not risk-free. But it is the only treatment available. After surgery a repeat MRI scan will be undertaken. If there are any remains of the growth, it may be treated with radiotherapy.

The problem with Acoustic Neuroma is that they grow. The skull is a solid structure designed to protect the brain. So when the Acoustic Neuroma grows, it increases pressure on the brain.

This increased pressure, along with a build-up of fluid on the brain, can cause the brain stem, located in a little hole at the bottom centre of the skull, to get crushed. The brain stem sends messages to the heart to beat and the lungs to breathe. If it gets crushed it would be unable to send these messages and the body would cease to function, resulting in death.



The Skull.

Even after going through surgery and radiotherapy a person with Acoustic Neuroma will need to continue regular MRI scans, as the growth in some cases returns. The second is dementia. Dementia is split into a number of different types. But the symptoms are generally the same: changes to personality, short or long term memory loss, confabulation and confusion. Currently there are no cures for dementia, however treatments aim to slow the deterioration of the mind.



A neuron (brain cell).

In Epilepsy, neurons of the brain misfire causing seizures. These seizures vary massively from individual to individual, ranging from vacant episodes to grand mal seizures. Epilepsy is usually a lifelong condition and requires treatment from Neurologists and includes anti-epileptic medicines and sometimes a ketogenic diet.

Febrile Seizures (or Febrile Convulsions) occur in babies or children. The baby or child has usually been unwell with a raised temperature. The exact cause of Febrile Seizures is unknown but it is theorised that it is to do with the brain failing to 'turn down' the temperature when fighting an infection. This is thought to be due to an immaturity in a baby's or child's brain.

<u>A Note On: Raised Body Temperature & Infections</u> When the human body is contaminated with a bacterial or viral infection, the body raises its temperature. This does two things inside the body:

- 1. It makes it harder for bacteria and viruses to survive and multiply.
- 2. It stimulates the immune system to respond, so that

.....

white blood cells are released to fight the infection.

The good news is that Febrile Seizures resolve themselves and that future Febrile Seizures can be prevented by:

- Stripping the baby/child down to minimum clothing when they have a temperature.
- Giving regular cold fluids to the baby/child.
- Ensuring the environment isn't too warm.
- Giving medications to the baby/child that lower the temperature (e.g. Paracetamol & Ibuprofen).

Babies/children grow out of Febrile Seizures as they get older. By around 7 years old, children are no longer at risk of Febrile Seizures.

A stroke is a life threatening condition which is caused when a blood clot forms or blood vessel bursts in the brain. It causes a limited or no supply of oxygenated blood to some neurons in the brain. The symptoms of a stroke are best remembered by FAST:

- → Face Maybe drooped. Someone having a stroke may also be unable to smile.
- → Arms Someone having a stroke will struggle lifting up their arms and holding them there.
- → Speech Their speech may be slurred or they may not be able to speak at all.
- → Time Time to call 999. The faster the treatment, the better the long term outcome.

There's also such a thing as a mini-stroke. The same symptoms apply, but are likely to be less severe. It's important to get mini-strokes treated, as they can lead to full strokes later on. Medications are generally used to treat strokes and mini-strokes. Occasionally surgery is required.

A Note On: Acute & Chronic Pain

Both acute (sudden onset) and chronic (long term) pain are the body's response to injury or damage. Pain is experienced thanks to sensory receptors (Nociceptors), which send messages through the nervous system to the brain. Pain is a very personal experience and different individuals have different tolerance levels when it comes to pain.

Some diseases cause pain, as do some of the consequences of these conditions. Sometimes the source of pain can be easily identified. Whereas other times it can be difficult to identify the exact cause of pain.

Currently in the UK there are concerns about the numbers of people developing addiction/dependency to painkillers. This has led to a number of changes in the prescribing and dispensing of stronger painkillers. Due to the subjective nature of pain, sometimes medical professions can over or under prescribe in their aim of achieving effective pain management.

In my very personal experience of suffering with chronic pain recently, the doctors I've seen at my GP Surgery have under prescribed. This has left me at times in immense pain. I've broken down in tears in front of them to show my pain. I understand that doctors should always give the minimum amount of medications required to get the desired effects (as this reduces the chances of side effects), but it feels like they are not using the World Health Organization's (WHO) (1986) pain management ladder.

Charcot-Marie-Tooth Disease (CMT) is a number of conditions that damage Peripheral Nerves. The peripheral nerves are any nerves outside of the brain and spinal cord. They are genetic conditions that are inherited from their biological parents.

Symptoms can include muscle weakness to the hands, feet, ankles and legs, a way of walking that appears awkward and numbness to hands, arms and feet. Joint and nerve pain may also be present. Symptoms can begin to present at any age.

There are no cures for CMT and it is progressive, meaning it gets worse as time progresses. Treatments aim to keep individuals with CMT conditions as mobile and independent for as long as possible. They include physiotherapy, occupational therapy and aids to assist with activities of daily living. A range of medications may be prescribed, along with surgery.

Counselling and CBT can help people with CMT to deal with their thoughts, frustrations and difficult emotions that may be triggered by their physical limitations as the disease progresses.

The brain has a blood-brain barrier (BBB) that is supposed to protect the brain from harmful organisms. Unfortunately it isn't always as effective as it should be. The BBB can become infected by both bacterial and viral Meningitis.

When this happens the BBB can become compromised and let the infection pass through to the brain. Meningitis can then damage the brain, sometimes permanently and in rare cases (usually where there is a significant delay in seeking medical treatment) can result in death.

Symptoms of Meningitis include a temperature of more than 37.5°C, confusion, headache, sometimes (but not always) a rash, a stiff neck, aches and pains, being sensitive to light, difficulty breathing or shortness of breath, having a reduced level of consciousness (late symptom) and seizures (late symptom).

Treatments for Meningitis include vaccinations to prevent Meningitis caused by certain bacterias, intravenous (injection into a vein) antibiotics in the case of bacterial Meningitis, intravenous fluids to prevent dehydration, antiviral medications for viral Meningitis, steroids to reduce swelling and inflammation and oxygen if short of breath.

Neurogenic Shock

Any type of shock in the human body is pre-terminal and likely to be treated in the Resuscitation section of an A&E Department.

Shock is where the body is not able to supply all the organs with enough blood. In shock, the human body rapidly deteriorates and can result in requiring Cardiopulmonary Resuscitation (CPR). Sadly around 20% of people who go into shock will die. There are different types of shock, all of which shall be written about in the relevant chapters of this book. It is essential to understand that in shock the body focuses on supplying blood to the brain and the heart, to try and keep going for as long as possible.

Neurogenic shock is usually caused by damage to the nervous system (brain or nerves in the spine). The most common cause of Neurogenic shock is due to a spinal cord injury or trauma.

Cerebral palsy is an umbrella term for a number of conditions that affect a child before, during or shortly after birth. These conditions have in common that they affect movement and coordination. They are not usually spotted at birth but soon afterwards.

Causes of cerebral palsy include an infection in pregnancy, loss of blood supply to the unborn child's brain during pregnancy, stroke to unborn child, injury or trauma to unborn child, child being starved of oxygen during the birth, meningitis in the infant (see above) and low blood sugar (medical term: hypoglycemia) of infant at birth.

The risk of cerebral palsy is increased in premature babies, babies of a low birth weight, multiple pregnancies (such as twins or triplets) and alcohol/drug use during pregnancy.

Symptoms of cerebral palsy include:

- ✤ An infant being too stiff or floppy.
- ✤ Weak arms or legs.
- Developmental delay.
- Clumsy movements and poor hand-eye coordination.
- Delayed walking and then walking on tiptoes.
- Problems swallowing, learning disabilities, speaking problems and vision problems.

There is no cure for cerebral palsy, only treatments. Treatments depend on symptoms experienced but may include Occupational Therapy, Physiotherapy, Dietician input, Social Work input, Specialist Learning Disability Nurse input, Mental Health input and medications.



A virus cell.

Joke: Why was COVID-19 such a hit? Because it went viral.

END OF SAMPLE.

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