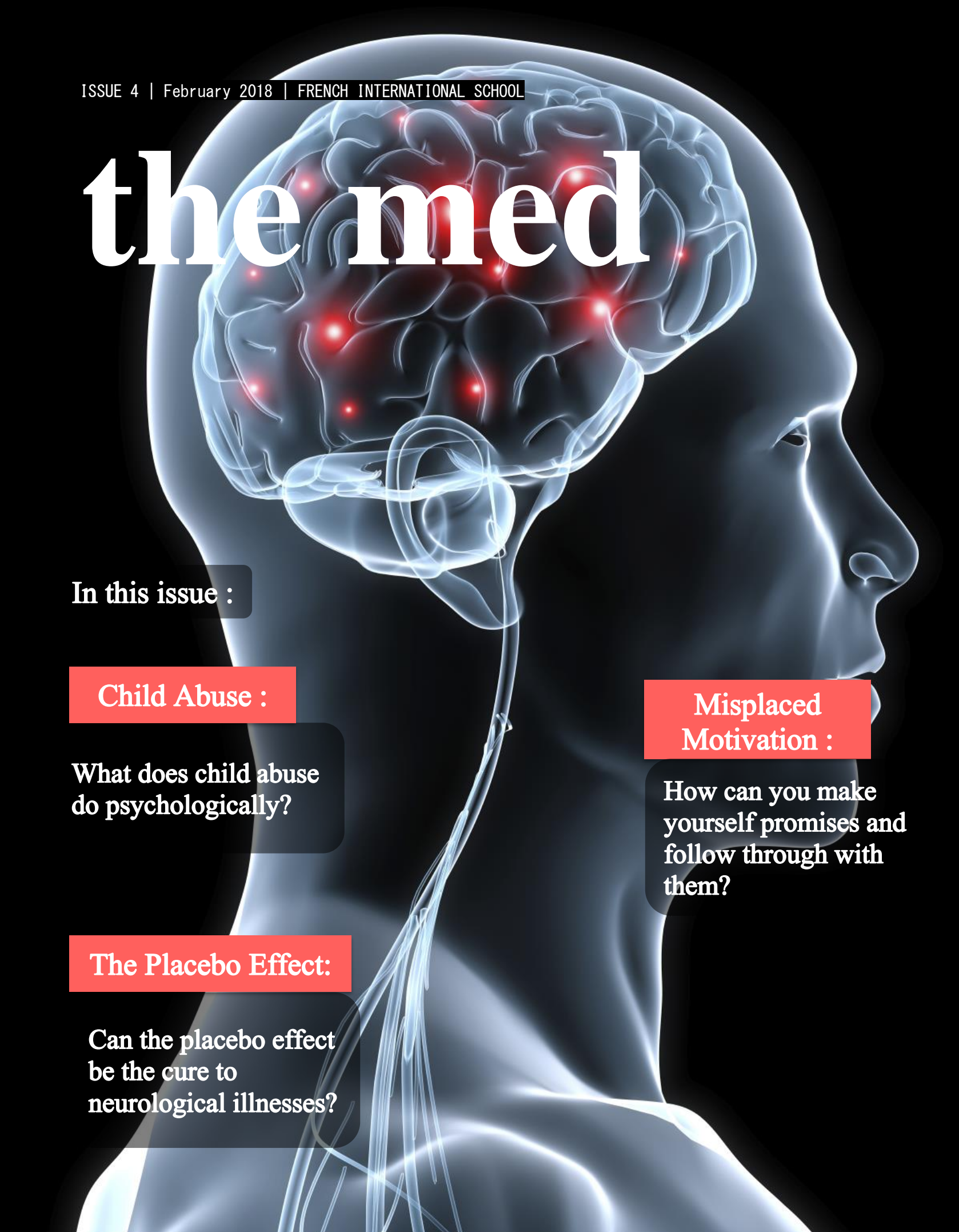


the med



In this issue :

Child Abuse :

What does child abuse do psychologically?

Misplaced Motivation :

How can you make yourself promises and follow through with them?

The Placebo Effect:

Can the placebo effect be the cure to neurological illnesses?



THE

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EDITOR'S NOTE

Dear Medical Journal Readers,

After a month hiatus, I would like to welcome you back to our fourth edition of the FIS Medical Journal with the theme of 'Psychology'. Thanks for checking us out!

As a united team of Year 12 students, the FIS Medical Journal's aims are to provide a light-hearted magazine-style medical journal for all FIS students, to create opportunities for research and collaboration within the FIS community, to raise awareness of medical issues in the FIS community, to spark inspiration and interest in younger students and to provide Medical School guidance and advice.

Psychology has never been as popular as it has been today. It is the field with the greatest demand of study in the UK and the world's second most popular course. The BBC has reported that there were more than 100,000 students in the UK who have registered for a Psychology degree in 2014.

You might however, think how this field even links with medicine. In a book that I have read called 'Psychology in Medicine' by I.C. McManus, psychology was taught by McManus to medical students to better understand their patient's needs, improve bedside manner and to better understand oneself. Psychology can also be used as a treatment in alternative to drugs. One application as treatment that McManus looked at was using psychology to help patients quit smoking by the placebo effect, motivation and finding a way to reduce dependency.

This brings us to our line-up of fantastic articles on Psychology written by our Year 12 team and our group of IB Psychology students who have generously contributed a few articles. Please dig in and enjoy.

Hadrian Wong



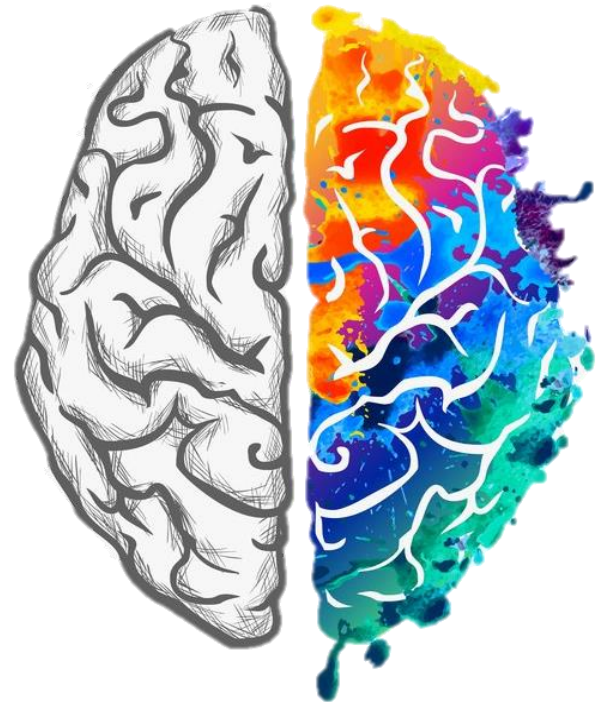
PREFACE

Psychology

BY Priyana Mirchandani

Psychology is a study of the human mind which controls our day to day decision making which is influenced by our past experiences, perceptions, current state of emotions, and our thinking styles. So why not make more room to explore and understand our mind so we can become experts at better decision making to meet our goals and attract more happiness in our lives.

I'm one of the School counsellors in your school who is pleased to share that we are providing a safe space and time right here on 5th floor to help you master your personal self- awareness. We can provide you the support and guidance that you may find useful when exploring yourself, so you can better understand your thinking patterns, emotions and behaviours. By taking part in the counselling process you can learn healthy ways to cope with stress to promote positive changes in your personal growth, relationships, academics and/or sports performance.





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THE TEAM

BEHIND THE MED



Top row (from left to right):

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February 2018

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What's The Deal With
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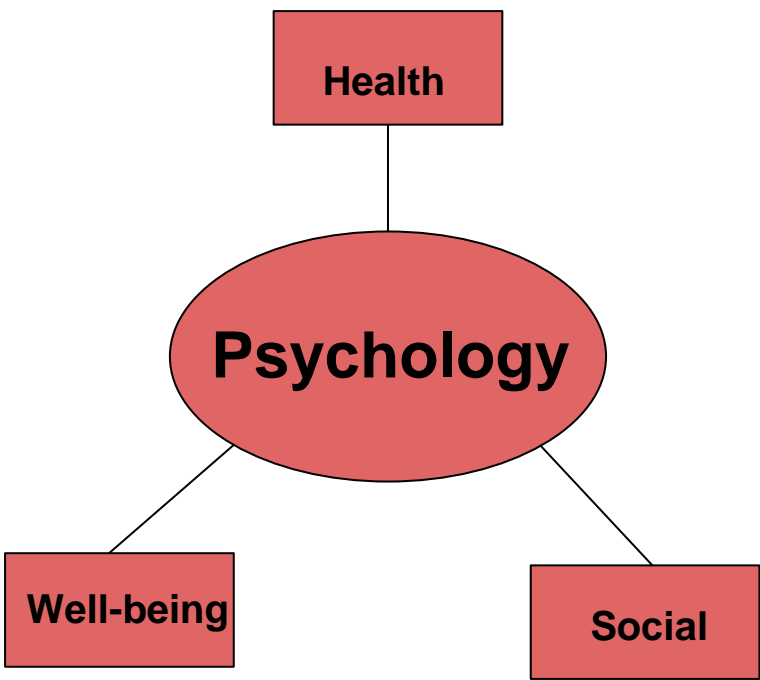


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By Aarmann Mohan Year 12



What is Psychology?

Psychology is the science of the mind. The human mind is the most complex machine on Earth. It is the source of all thought and behaviour. In its primary form, psychology studies people—who and what they are. It looks into why they act and think the way they do and how someone can improve himself or herself. Therefore, everything a person does is connected to the subject. Psychology allows people to understand more about how the body and mind work together. This knowledge can help with decision-making and avoiding stressful situations. It can help with time management, setting and achieving goals, and living effectively.

The science not only allows people to be more successful, but it can also impact their

health. It helps many tackle their mental illnesses so that they can continue living their lives. Psychological studies have also aided in drug development and the ability to diagnose various diseases (such as Alzheimer's and Parkinson's).

Psychological Health

Psychological health is important with respect to how we function and adapt, and with respect to whether our lives are satisfying and productive. In the end, psychological health and well-being basically has to do with the question: "how are you doing?" With teenage health, there are various areas which affect how they are psychologically feeling. This may include: pressure from their peers, parents or teachers, or living up to others' expectations when it comes to superficial appearances or school grades.

A very common condition which causes psychological health issues is none other than stress. Stress leads to emotional and physical symptoms for many young people. A survey found that more than a quarter of teens report symptoms including neglecting responsibilities, feeling overwhelmed, having negative thoughts or changes in

sleeping habits. More than a third reported feeling tired, feeling nervous or anxious, or experiencing irritability and anger.

Psychological Well-Being

Psychological well-being is a very subjective term but for all the research that has been carried out, the term is used throughout the health industry as kind of a 'catch-all phrase' meaning contentment, satisfaction with all elements of life, self-actualisation (a feeling of having achieved something with one's life), peace and happiness.

Social Change

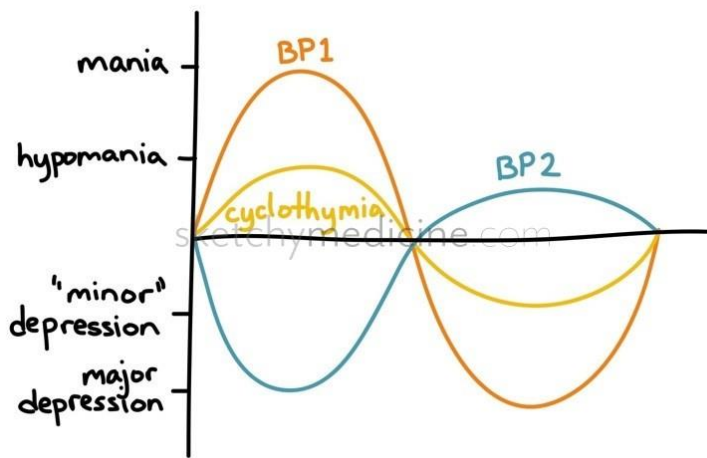
Adolescence is the period of developmental transition between childhood and adulthood. It involves changes in personality, as well as physical, intellectual and social development. During this time of change, teens are faced with many issues and decisions. There are various aspects which may influence social change: self-esteem, peer pressure, drugs/alcohol, depression and sexuality. All of these may play a role in the psychological mind of a teenager and may cause various health conditions linked to one's psychological state/mind.





Bipolar Disorder

BY Sho Gierzstein Year 12



Also known as 'manic depression' is defined as 'a mental disorder that causes periods of depression and periods of elevated mood'. (Wikipedia) It is a widespread disorder which affects 2.6% of United States of America's population with a booming total of 5.7 million people of ages 18 and older according to the National Institute of Mental Health.

Although there is no cure to the life-long illness, it can be treated with medication, cognitive behavioural therapy, psychotherapy and even electroconvulsive therapy (which is described as 'a procedure done under general anaesthesia, in which small electrical currents are passed through the brain, intentionally triggering a brief seizure').

People suffering from the bipolar disorder have two major mood 'poles' which include mania and depression. With mania, people tend to have increased energy, unusual talkativeness, racing thoughts, little need for sleep, inability to concentrate, reckless behaviour and in certain severe cases delusions and hallucinations. On the other hand, with depression, symptoms include irritability, fatigue,

appetite and weight changes, problems with sleep, concentration and memory problems, negative feelings of worthlessness or guilt, and in some cases thoughts of death or suicide.

The symptoms for bipolar disorder is very broad and can range in frequency, severity and pattern. There are several types of bipolar disorder contrary to belief such as:

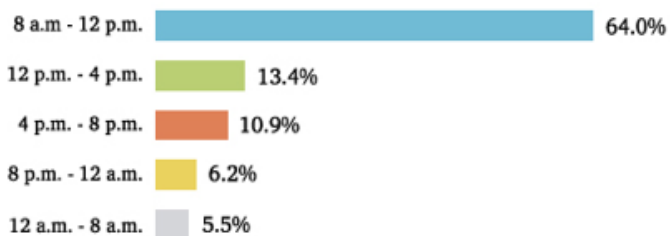
- **Bipolar I**
 - o This type of disorder involves at least one manic episode in his or her life
 - o They suffer from episodes of depression
- **Bipolar II**
 - o The 'up' and happy hysteric moods never reach a full-blown mania
 - o These less intensified moods are called hypomanic episodes
- **Cyclothymic disorder**
 - o Mood swings are between short periods of mild depression and mania
- **"Mixed features"**
 - o The more stereotyped form of the disease in which bipolar episodes has symptoms of both mania and depression at the same time or in rapid sequence. These are only a few of the vast variety of the shape and form this life-long illness can take.

“YOUR **FUTURE** IS CREATED BY WHAT
YOU DO **NOT** { **TODAY** }
{ **TOMORROW**”

Misplaced Motivation

BY Elliot Topping Year 12

When do you feel most productive?



Are you motivated as you go to sleep or never end up following your revision plans?

As another long arduous day at work or school draws to a blissful close, some people report to experience an enormous surge in motivation to do things they otherwise would not do. The physiology behind this feeling and the chemicals involved are all very complex and many studies are being made into why the brain works the way it does - what chemical pathways are taken etc. As of yet however, due to the extreme complexity

of the brain, the reasons for this epidemic of misplaced, or sometimes entirely lacking motivation can only be explained in depth by the following psychological ideas.

Don't stop
when you are tired.
STOP
when you are
DONE!

My Dear Valentine

Many people as they lie in bed will contemplate over the ending day and may suddenly think of setting up a running, or study, plan, want to learn a new skill or even start saying that they'll finally write that medical journal article they've

been meaning to. The majority of the time they'll end up putting it off for tomorrow, saying things such as: 'It's too late to do now, I'll do it when I wake up'. This could be rationalised as after a hectic day draws to an end and you lie down in bed you are far more prone to relaxing, and calmly reflecting, due to the absence of all distractions from the passing day. This therefore creates the point in your day when you are most detached from the day that has just gone by, but also where you are awaiting in optimistic anticipation the day to come. This point is almost like a limbo between the two days where, in mind, it is neither today nor tomorrow.

This idea is loosely edified through the three related psychological models: the hot-cold empathy gap, the Ainslie-Rachlin model of self-control, and the theory of planned behaviour, which are all outlined as follows.

The Hot-Cold Empathy Gap:

The hot-cold empathy gap compares the present you, which you view as the real day-to-day you, with the future you, which you view as a different person entirely. The present you looks for what you want to get done right now, whilst the future you is almost entirely detached from the present you. As you subconsciously view the future you as a different person, it allows you to easily make plans for him/her which end up never being carried out as you are detached from this version of yourself.

Ainslie-Rachlin Model of Self-Control:

The hot-cold empathy gap leads into a related model called the Ainslie-Rachlin model of self-control. This model decrees that there are small, easily attainable goals which are reached as the day goes on. These goals are immediately gratifying and cause you to derive small amounts of pleasure from them such as the enjoyment received from watching cat videos.

In contrast, there are also much more gratifying, but harder to achieve long-term goals, like frequenting the gym to lose weight. These goals do not provide immediate reward but rather a suspended, but large one. This means that in the moment the harder, longer-term goals are perceived as less favourable as people tend to seek immediate gratification, therefore they watch the cat videos instead of going to the gym.

The Theory of Planned Behaviour:

The final theory covered is the theory of planned behaviour. It is a model which relates behavioural intentions to actual actions, in effect what you want to do and the metaphorical barriers in between. It says the intention to do something results from three different constructs: behavioural attitudes, subjective norms, and perceived behavioural control.

Behavioural attitudes are how a person feels about what they wish to do in terms of whether they like it or not, and gauging whether it has substantial benefits. This would include liking or disliking going to the gym to lose weight but also being aware it would lower the risk of heart disease.

Subjective norms are how those around you encourage or support you on the way to achieving your goal and whether they actually do it themselves. An example being how it's easier to go to a gym if your friends already go and enjoy it themselves.

Finally, perceived behavioural control is about how capable and confident a person is in themselves to actually do the action. If they lack the self-belief then they are less likely to go through with their original intention.

This model essentially predicts that a positive attitude towards all the aforementioned ideas will most likely result in actual action, and a negative attitude will unlikely result in any action, with the degree varying depending on what is most important to the individual.

How can we fix this misplaced motivation? Hopefully through reading this article and understanding the logic behind our procrastination and will be able to reflect on what you think needs changing, whether it be approaching the work with a more positive attitude, surrounding yourself with other positive influences or finding a way to work out how to avoid small, short term temptations it is useful to self-assess and work out what you think you should change, if anything.

If you keep having great ideas as you go to bed maybe keep a notepad by your bed and what it is as well as the source of motivation so that when you read it again in the morning you will hopefully feel the same way.

Also if you have trouble with reaching big goals, setting yourself small, incremental goals within

that larger main target will most likely help in being more proficient and ultimately reaching them.

Best of luck in staying motivated and reaching all your goals in this new year!

the
struggle
you're in
today
is developing the
strength
you need for
tomorrow



FEATURED ARTICLE 3

Effect of Child Abuse

BY Robyn Lee Year 12

In the past few decades, significantly more research has gone into investigating parental abuse, particularly in relation to harm within foster care homes and in looking at the effect this abuse has, whether it be psychically or mentally, on children and how children in this situation can overcome any trauma they have experienced.

There are five subtypes attributed to child abuse as designated by the World Health Organisation (WHO): physical abuse, sexual abuse, neglect and negligent treatment, emotional abuse and exploitation. As well as the consequences of child maltreatment which include: impaired physical and mental health, poorer academic performance and job and relationship difficulties.

In some cases, the aid of psychological and therapeutic help is enough for a child to overcome the torment they have once experienced. However, the extent to which one can help varies with each case. Children that experience cruelty or violence when they are older have a better chance of

conquering any negative effects that may have arisen.

Yet, some are not so lucky... especially when it comes to abuse at a very young age. Not only do most children in these cases have a much harder time overcoming their problems but sometimes, no matter how hard they try, they are not able to do so at all.

This was the case for a famous feral child who goes by the pseudonym Genie Wiley. If you are not familiar with what a feral child is, it refers to those that have lived in isolation from a very young age where they are restricted from interaction with other human beings and often do not possess crucial human abilities such as language acquisition.

It is known that the most important stage in a person's life occurs from when they are born to when they are around 8 years old. This is known as early child development, or ECD, and important, necessary functions such as physical, socio emotional, cognitive and motor development occurs

during this time. Genie suffered maltreatment and was forced into isolation in her own home from the age of just 20 months old until she was 13. This means that her developmental processes were severely compromised when she was finally removed from the situation. She wasn't able to walk or talk and had never had any previous experiences with human interaction. At 13 years old, she was still crawling on the floor and possessed the language and physical skills of a baby.

With the help of psychologists and scientists, mainly a man called Doctor David Reigler, by the age of 18 Genie was able to progress to using sign language to communicate her thoughts however, this was as far

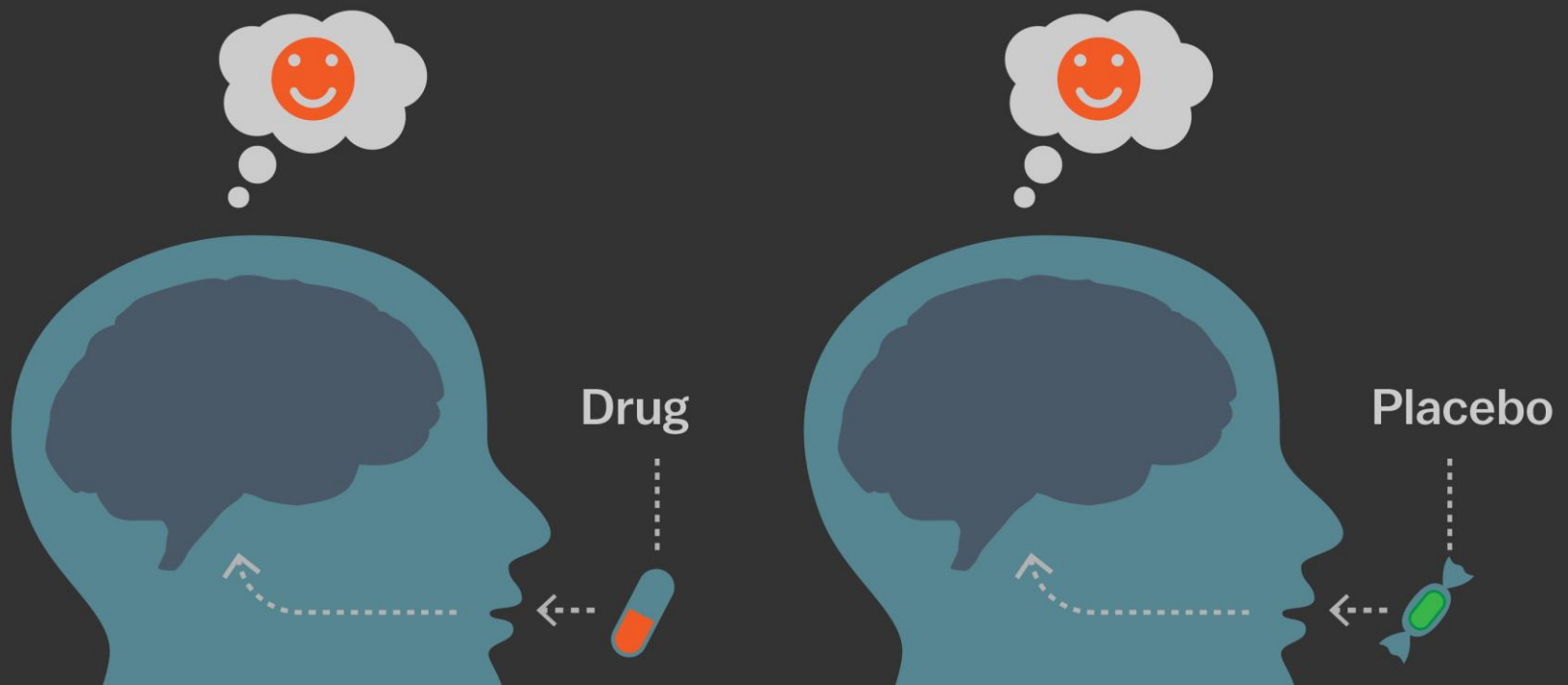
as her language skills ever evolved. It was found that because she missed the crucial developmental stages, her brain was underdeveloped and she no longer possessed the capacity to be able to acquire language.

Although an extreme case, Genie's struggle highlights how severe the cases of parental abuse can be and how it needs to come to an end. People should not underrate the things some of these children have to endure and how much effort it takes to try and encompass a 'normal' life when one has suffered so drastically.



World Health Organization





The Placebo Effect

BY Sacha Lee Year 12

In many medical trials striving to discover new and effective treatment for currently ‘incurable’ diseases, specifically those that are related to neurology (e.g. Alzheimer’s), researchers must introduce what’s known as a placebo. A placebo is a harmless substance that is given to a patient that will in no way affect the person’s illness. This is used to test the effectiveness of the treatment that has been given by comparing the results of those who were given the valid medicine with those who received the placebo. Throughout the study, it is decided randomly as to whether a patient will receive the experimental treatment or the placebo. The patients that receive the placebo are not aware of the ineffective substance they have been given.

On occasion, a patient may return with a positive or negative response to the trial, despite having been given the placebo. This is known as the placebo effect. Studies show that placebos can have an effect on conditions such as: depression, pain, sleep disorders and menopause. One study

that was conducted with asthma patients, provided the patient with an inhaler. Instead of inhaling an effective substance to relax the patient’s airway, the inhalers were filled with a placebo. Despite the apparent ineffectiveness of the inhalers, shown by the maintained results in breathing tests, the patient’s concluded that the inhalers were an effective tool for relieving their asthma.

Despite these seemingly positive results, there are many factors to consider when addressing the patients view in regard to the effectiveness of the placebo, and it must be stated that the placebo effect won’t cure an illness but can help in the symptoms as a result of brain signals (i.e. pain). Firstly, researchers find around one-third of patients get better without drugs or placebo. This could cause a patient to believe in the strength of the treatment, despite the fact that the symptoms of the illness would have receded without the aid of the placebo. Also, while a patient is in treatment, they are focused on themselves getting better and so may focus on the positive outcomes

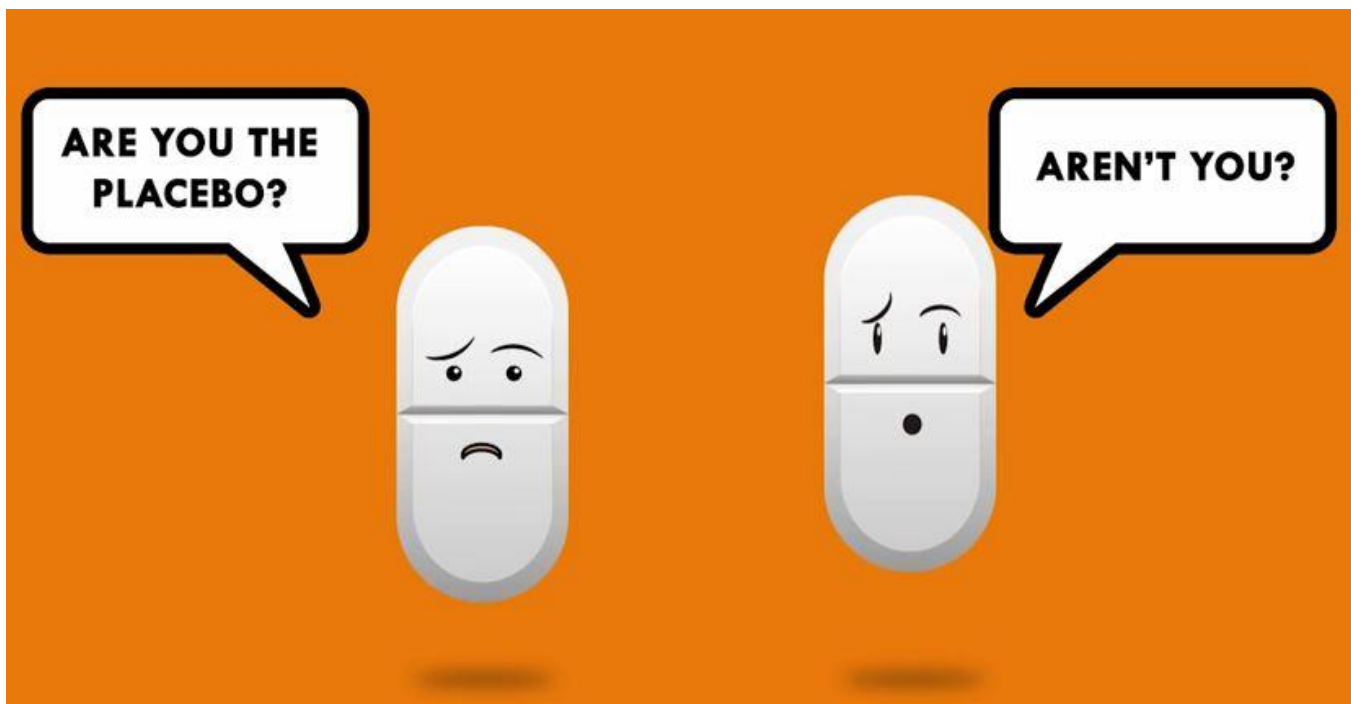
as a result of treatment, and dismiss the signs that they are getting worse.

A researcher at the University of Maryland conducted an experiment on the phenomenon of the placebo effect. She would “hook up a study participant to an electroshock machine. For each strong, painful shock, she’ll flash a red light on a screen the participant is looking at. For mild shocks, she’ll flash a green light. By the end of the experiment, when the participants see the green light, they feel less pain, even when the shocks are set to the highest setting.”

Another example of the placebo effect is if a doctor gave a patient valid medication to relieve pain, and then overtime swapped to a placebo. The key to

understanding the placebo effect is that our brains associate the pill that is given with relief, and so start to produce chemicals that initiate that relief of pain. This results in the patient experiencing a sense of pain relief despite the fact that the substance they have been given is not considered as effective treatment for the patient’s illness.

The placebo effect demonstrates just how powerful the connection from the brain to the body is, showing how even if there is no “proper” medication given, the mind’s association with the positive effects of the medicine they think they’ve been given provides pain relief just as proper treatment would have done.





The Psychology of making new habits

B Hadrian Wong Year 12

With two months into 2018, I thought it would be interesting to look at New Year's Resolutions. Personally, I never tell myself 'new year, new me', but I do think of things to improve on from the past years. To start off, here are some facts and figures from The Business Insider:

- 80% of people fail to stick to their resolutions by the second week of February
- Most resolutions involve trying to be healthier or saving money (no surprise there!)
- Overthinking how arduous the resolutions are and leaving mental excuses are a few of the psychological reasons for dropping

Obviously, these facts don't come as a surprise, but I really want to answer the question as to how it is possible to successfully make those New Year's resolutions a habit in your daily life. Well

essentially, there are two main reasons to fulfil those New Year's Resolutions a daily habit: The science of habits and the science of self-stories.

The Science of Habits

UCL research has stated that a habit is an 'automatic response' from a given stimulus and the action has been performed in the past. As a habit becomes stronger, the harder it is to perform a different action in a given stimulus.

For example, when you are nervous, and you bite your nails.

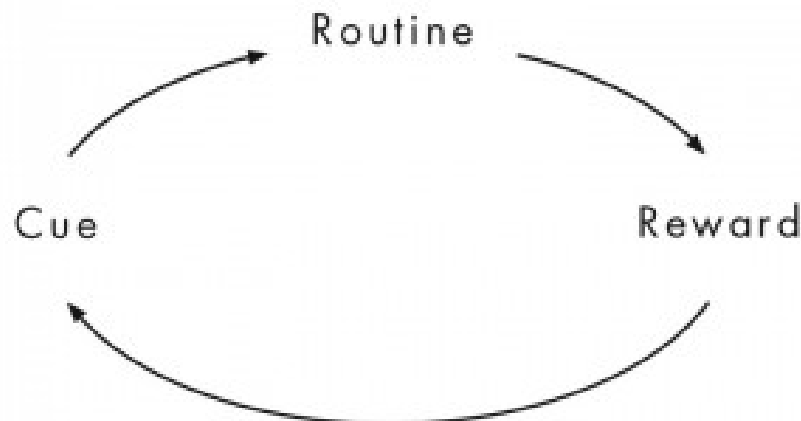
To form a habit, an action must be performed in the same context repeatedly to create a mental association between the context and the action. An example given by the UCL research was that each time you finish a cup of tea, you eat a biscuit. Overtime through this repeated action, a mental

link is formed and strengthens overtime and before you know it, eating that biscuit will be second nature!

The time it takes for such an action to become a habit is 66 days or 10 weeks, however there can be discrepancies as it varies from person to person, so don't give up after a month into the New Year!

So, if you are thinking of performing a healthy action as part of your New Year's resolution, try and think of a well-established habit that you already perform on a daily basis. Perhaps it may be having a cup of coffee in the morning or a shower right after you get up. Use this as a foundation and perform perhaps 50 sit ups before/after the already existing habit. In a few weeks, it might perhaps stick around without you knowing.

But what if it doesn't work after so long? Another method of forming a habit taken from the book *The Power of Habit* by Charles Duhigg involves looking at forming habits as a cycle which also includes having rewards.



His example involved wanting to be healthier, which required him to break his habit of going to the canteen and buying cookies when he was bored at work. He did experimentations over a few weeks, where the cue remained the same (being bored at work), but kept changing his routine, whether it be going outside for a walk, chatting with his co-workers. By experimenting, he was able to isolate which he thought was the most rewarding and hence focused on that. In the end, he figured that the reward he was seeking in the end was a distraction from work, hence he devised a plan to socialise with his co-workers at the same time every day to ease his 'craving'. In the matter of 6 months, it became second nature to him.

Although these are only just starting points to achieve a New Year's resolution, just like everything in life, success requires repeated experiments and failures, so if the habits don't kick in as soon as you hoped, change, adapt and repeat.



AUTISM SPECTRUM DISORDER



DIAGNOSIS OF THE MONTH

Autism

By Esmé Seaver Year 12

What is it?

It is a severe neurodevelopmental disorder that is characterized by "challenges with social skills, tendency towards repetitive behaviours, speech and nonverbal communication, as well as by unique strengths and differences."

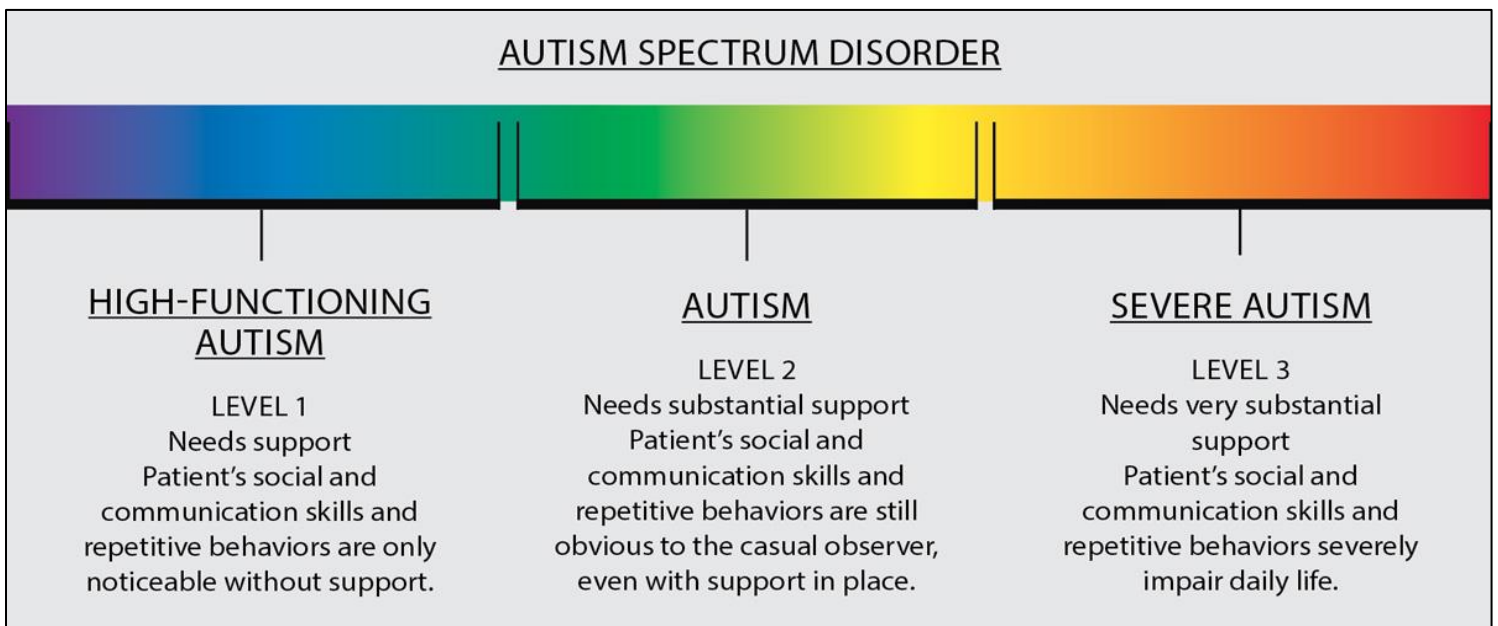
Some symptoms of Autism (there are a very wide range of symptoms)

1. Behavioural and emotional
 - Difficulty regulating emotions
 - Difficulty focusing on objects/tasks
 - Unconventional behaviour such as crying, aggression or having outbursts at "inappropriate" times
 - Self-injurious behaviours such as head banging, hair pulling or self-biting. (often as a result of frustration)
 - Difficulty differentiating one's own feelings from the feelings of others or interpreting other people's emotions
 - Difficulty in making and keeping friends
 - Repetitive Behaviours
 - unusual repetitive behaviours e.g. hand-flapping, rocking, jumping and twirling, arranging and rearranging objects
 - intense preoccupations or obsessions (objects and/or subjects)
 - need and demand extreme consistency in their environment and daily routine. It can prove extremely upsetting if someone or something disrupts the order.

2. Communication Difficulties

- Difficulties with speech
 - difficulty combining words into meaningful sentences
 - speak only single words or repeat the same phrase over and over
 - repeat what they hear verbatim (echolalia)
- Difficulty in engaging in “give and take” of conversation
- Inability to understand body language, tone of voice and expressions that aren’t meant to be taken literally
- Difficulty initiating and responding to bids for interaction
- Difficulty considering another’s intention and perspective
- Restricted range of communicative functions to seek engagement and comfort from others
- Someone affected by autism may not exhibit typical body language:
 - facial expressions, movements and gestures may not match what they are saying
 - tone of voice may fail to reflect their feelings

Symptoms and their severity vary widely. Someone on the high functioning end of the autism spectrum may have relatively mild symptoms. For others, symptoms may be much more severe and interfere with daily life



Associated Medical Conditions

- Genetic Disorders
 - Single-gene and chromosomal disorders including Fragile X syndrome, Angelman syndrome, tuberous sclerosis and chromosome 15 duplication syndrome etc.
- Gastrointestinal (GI) Disorders
 - Tendency for chronic constipation or diarrhea
 - Inflammatory bowel disease
 - Pain caused by GI issues can prompt behavioral changes such as outbursts of aggression or self-injury.
- Seizure Disorders
 - Epilepsy
- Sleeping problems
- Sensory Processing Problems
 - Unusual responses to sensory input.
 - Difficulty processing and integrating sensory information, or stimuli, such as sights, sounds smells, tastes and/or movement.
 - May experience seemingly ordinary stimuli as painful, unpleasant or confusing. E.g. hypersensitivity to sounds or touch
 - Under-responsivity (hyposensitivity)
 - (can include failure to respond when one's name is called)
- Pica
 - tendency to eat things that are not food.
 - (normal between ages of 18 months and 24 months but people with autism may continue this behaviour for many years)

Causes

There is no exact cause of autism known. However, there is evidence that suggest it is caused by combinations of genetic and environmental factors.

1. Genetic risk factors

Researchers are continuing to investigate genes which could increase a child's risk of developing autism. Therefore, it appears that children can be born with a genetic predisposition which makes them susceptible to autism, but no single "trigger" has been identified. One theory is that clusters of genes may interfere with brain development, resulting in autism

Evidence supporting genetic link:

- Autism tends to run in families
- Autism tends to occur more frequently among individuals who have certain genetic disorders: including fragile X syndrome, tuberous sclerosis, congenital rubella syndrome and untreated phenylketonuria (PKU). (as mentioned above)
- There have been results showing that autism is more common in boys than girls suggesting it is due to genes on the X chromosome
- One study showed almost 20% of infants with an autistic older sibling also developed autism

2. Environmental risk factors

Although there is continuing evidence that genetics play a role in developing autism, there is not enough conclusive evidence showing it is the only factor. Therefore, most scientists are investigating different environmental factors' contribution to an increased or decreased risk of autism. Examples of environmental factors that are being investigated are: problems during pregnancy or delivery, viral infections, metabolic imbalances and exposure to chemicals.

- Research focused on the environmental risks involved with the development of ASD is quite complicated, as researchers must include how the environmental factors interact with individual genetic information.

Evidence suggesting there must be environmental factors involved:

- In studies with identical twins there was not always complete concordance among them
- Many genetic studies with no conclusive results
- Epigenetics is the biological mechanisms the body uses to “mark” DNA thus changing DNA expression. Through altering epigenetics, environmental factors can change gene expression without changing DNA sequences. Therefore, exposure to environmental factors which affect epigenetics has the potential to change the expression of key genes in e.g. brain development and thus increasing the risk of autism.

Potential Risks

Increased risk:

- Advanced parent age (either parent, yet especially prominent for men)
- Pregnancy and birth complications (e.g. extreme prematurity or low birth weight)
- Pregnancies spaced less than one year apart
- Possible chemical factors:
 - lead, insecticides, automotive exhaust and hydrocarbons

Decreased risk:

- Prenatal vitamins containing folic acid

No effect on risk:

- Vaccines.
 - In some cases, autism diagnoses happen to correspond with vaccinations
 - However, there has been extensive research on vaccines to determine if they increase the risk of autism and **there has been no evidence suggesting there is a link.**

Effects on brain biology:

- Most potential risk factors appear to affect crucial aspects of early brain development.
 - i.e. how neurons communicate with each other or how entire regions of the brain communicate with each other.
- Brain scans show differences in the shape and structure of the brain in children with autism (compared to neurotypical [normal brain development] children)

Treatment

There is no known cure for autism, instead treatment is centred around education usually in the form of one-on-one teaching with a trained specialist. There are many different approaches to treatment yet they all have the same goal of improving social communications (and other language impairments) and improving behaviour. Treatment is given to increase the individual's quality of life and social acceptance.

How to communicate with someone with autism?

1. Try to not get offended by an autistic person's comments as they tend to be frank. It is not intended to be rude although it might appear to be. Don't be quick to get defensive instead try to give them the benefit of the doubt.
2. Eye contact can be uncomfortable for someone with autism, so don't assume right away that they are just not interested in what you are saying.
3. Some people with autism are very anxious or insecure and may persist in asking feedback from you. Remember that many people with autism have faced bullying and exclusion. Try to be reassuring and show support for them (it can go a long way)
4. It might take a while for someone with autism to formulate answers or express what they want to say. Be patient and do not speak down to them; this can be very discouraging.
5. Don't talk too loudly, make sudden noises or touch someone with autism without warning. As mentioned previously, some autistic people are hypersensitive to stimuli
6. Don't assume people with autism lack emotions or empathy. Normally, they just have trouble showing their emotions; it doesn't mean they don't have any and they can pick up on judgemental and negative attitudes
7. Try not to use too many phrases that are not meant to be taken literally
8. Help them with social interactions as even though they might not seem interested they usually want to participate. Be encouraging and kind.



FIS SURVEY ANALYSIS

Stress

By Ines Durand Year 12

Question 1: How stressed are you with life in general?

This question came with 4 options: 'not stressed', 'somewhat stressed', 'quite stressed', and 'very stressed'.

Frequency of students who are "not stressed"

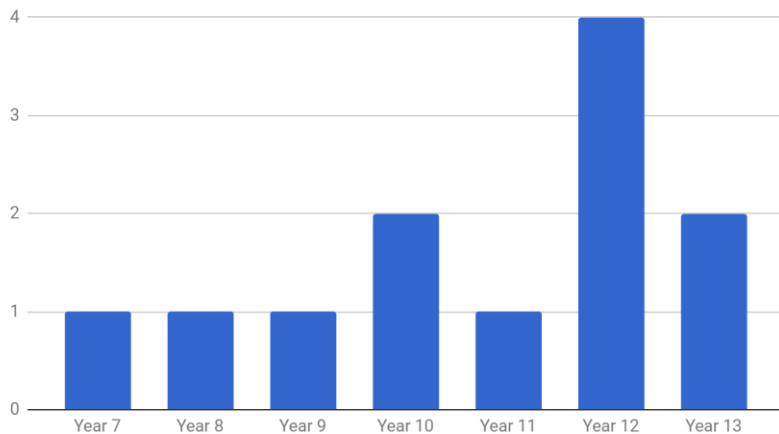


Fig. 1.1

Frequency of students who are "somewhat stressed"

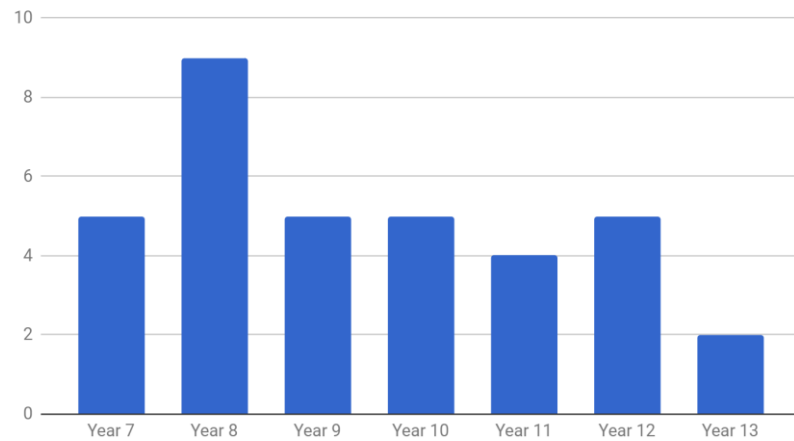


Fig. 1.2

Frequency of students who are "quite stressed"

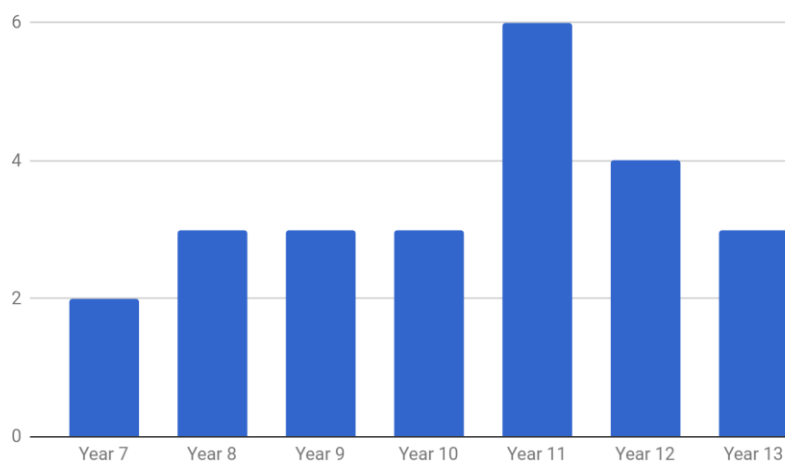


Fig. 1.3

Frequency of students who are "very stressed"

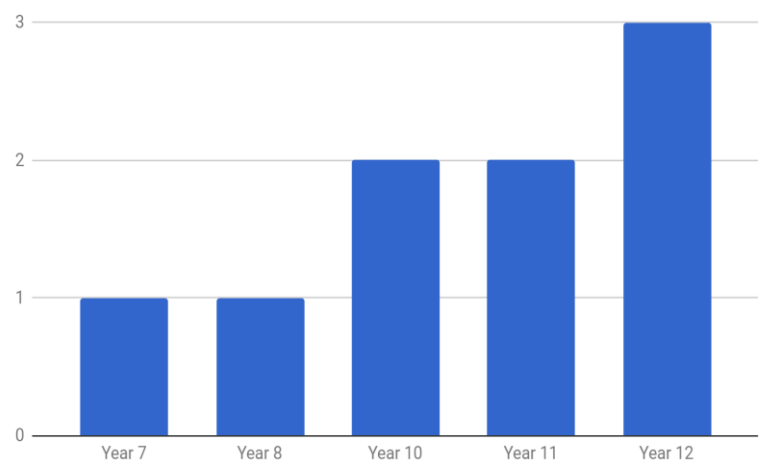


Fig. 1.4

I had expected some kind of downward trend as the years progressed, however, this seems to be quite the opposite. The year 7s, 8s, 9s and 11s have the lowest number of students who are "not stressed", meaning that most students in those years chose one of the 3 other options, all of which indicated higher amounts of stress. Contrasted with the number of Y12s reporting "not stressed", and considering that, academically speaking, this year is one of the most stressful of all the others, it is quite an anomaly. However, the number of students who chose this option within the different years are not according to proportion, for example there are 16 Y12s, 9 Year 9s and 7 Year 13s who participated in the survey. Therefore, perhaps a clearer trend line would appear if the survey was capped to allow the same number of participants across all years.

In Fig. 1.2, there is a more expected downward trend in the stress felt by students, and an upward trend in Fig. 1.3 and 1.4. This could most likely be because the students in the upper years feel more stressed academically which takes up a large part of their lives at that time, and the students in the lower years still do feel stressed, but to less of an extent as the upper years. This could be due to comparatively less time spent in school, which enables students to have more free time in their schedules to do their hobbies, for example.

Question 2: How stressed are you compared with last year?

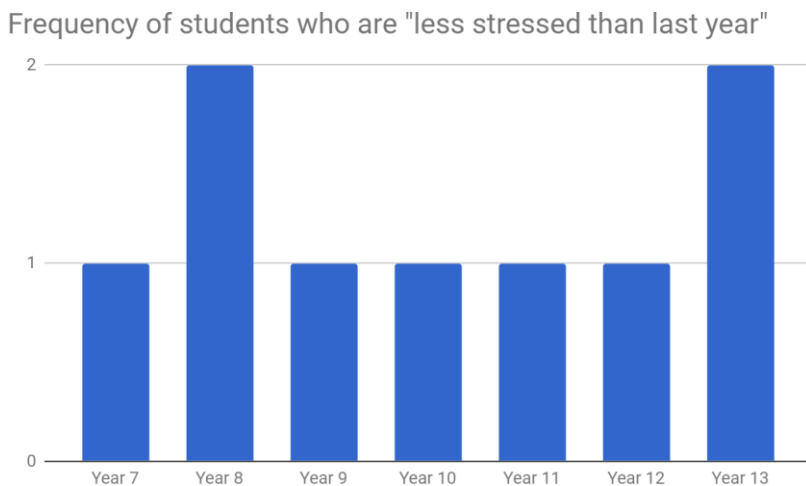


Fig. 2.1

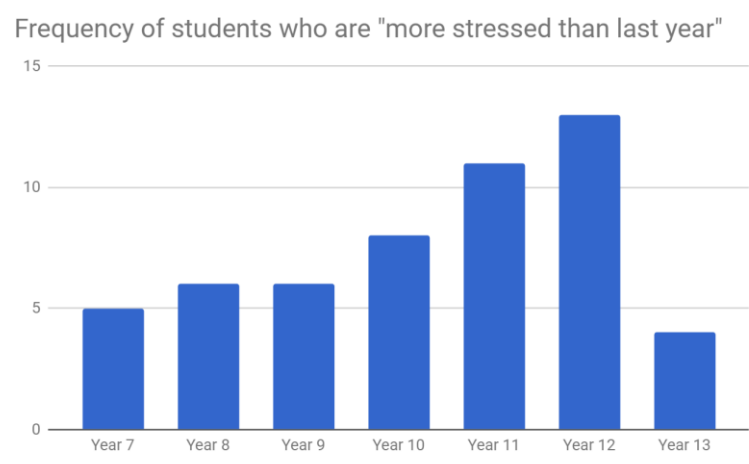


Fig. 2.2

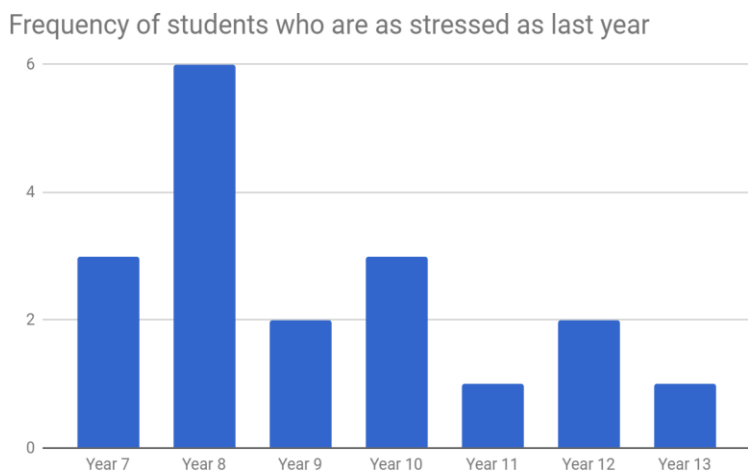


Fig. 2.3

There is a small difference between students who feel less stressed than last year in the different year groups. The notable changes are in Year 8 and Year 13, where some students in Y8 may have become better accustomed and adjusted to secondary life this year and thus felt less stress than last year, when it was their first year in secondary. As for the Y13s, it is their final year in the IB curriculum and besides two big tasks which are university applications and final exams, most of the IB is already done from the previous year in Year 12. This could account for the slightly higher number of Y13s being “less stressed than last year”.

This is a very clear indication of students' stress relating to academics over the years, with the highest peaks in Year 12 and 11 respectively. This is due to the high amount of stress Y12s face when dealing with the IB in their first year, when many students are still adjusting to the IB life with factors such as workload and extracurricular activities for CAS programmes. For the Y11s, this is their IGCSE exam year and the fact that this is likely the first public exam they will have to go through, and the high amounts of preparation they have to do before the exams, are most probably the source of stress they have.

The notable points in this graph are the high number of Year 8s reporting the same amount of stress as last year, and the low points from Y11 and 13. Since there are no drastic curriculum changes during Year 7 and Year 8, and workload does not differ by much, chances are that Year 8s think there is not much difference between this and the previous year. Not many

Y11 and 13 students chose this option as these are both exam years- one for IGCSE and one for IB. Year 9 and 12 do not show many students who report feeling as stressed as last year either, because in Year 9 students take on a load of different subjects, some of which they do not enjoy but still take, and the workload resulting from many classes also could add to stress. The same can be said with the Y12s about workload.

The next categories required students to rate each source of stress **from 1-5, with 5 being the highest**

Question 3: Workload

Year 7-----2.6
Year 8-----2.8
Year 9-----3.4
Year 10----3.3
Year 11----2.8
Year 12----3.6
Year 13----3.7

Here there is a steady increase in stress levels regarding workload and is explained by more homework and activities being added in each successive year, and difficulty in the classwork also increases.

Question 4: Grades/exams

Year 7-----3.2
Year 8-----3.2
Year 9-----3.9
Year 10----3.9
Year 11----3.8
Year 12----4.0
Year 13----4.4

Here there is also an increase in stress related to grades and exams, with the exception being Y11 which is unexpected, given the fact that they have the IGCSEs the same year. Then again, students can have very different perceptions on the same matter, and perhaps it could be due to small sample size, and the number might be higher if more students participated in the survey. The Y13 stress levels in this section are very high, which shows the importance they place on these exams that will eventually lead them to universities depending on their marks.

Question 5: Friends/family

Year 7-----3.0
Year 8-----2.0
Year 9-----2.0
Year 10----1.9
Year 11----2.7
Year 12----3.0
Year 13----2.0

There is not much difference between the years in terms of stress in terms of friends and family, and this is most likely due to the fact that each individual experiences unique relationships with different people, and have different factors that determine people's situations at school or at home which are impossible to be measure in this type of survey.

Question 6: Future plans (e.g university, moving school)

Year 7-----3.2
Year 8-----2.4
Year 9-----1.9
Year 10----3.0
Year 11----2.6
Year 12----4.0
Year 13----3.6

The year with the highest stress about future plans is Year 13, in which most students will be moving to a university with a new environment, and more importantly they are likely stressed about whether they will get in their first choice of university. The year with the lowest stress about future plans is Year 9, and normally, if thinking about changing schools, this would be a good time to do so before next year when the 2-year IGCSE course starts. The thought of changing schools could give students stress, however, in this survey not many indicated that they are stressed. It could be that those who are moving are stressed, but they are in the minority so that the majority of people who are not leaving would mask their number.

Question 7: How do you deal with stress, if any?

Eat-----29
Sleep-----33
Play video games-----21
Go out with friends-----39
Read (articles/books)----31
Watch TV shows/YouTube---52
Do sports/ go for a walk----44
Listen to music-----55
Avoiding the problem-----3
Calligraphy-----1
Tidy up/organise things-----1
Therapy-----1
Meditation/yoga-----1
Praying-----1
Crying-----1
Texting-----1

More than half of the students reported listening to music as their way of dealing with stress, and following that, many also chose to watch TV shows or youtube as one of their ways to relax. Perhaps more students would choose the latter options if they were included as checkboxes- the last 7 ways were included as “other” in which students could type in additional methods of dealing with stress.

Question 8: How organised are you?

When surveyed whether the students were organised, those who said “not at all” were a range of very, quite, somewhat, and not stressed with life in general. In addition, those who rated themselves as “mostly organised” also had varying stress levels in relation to their general life. Therefore, in this survey there is no clear link between being organised and an individual’s stress levels in general, which is contrary to the advice from many websites that say being organised decreases stress levels.

However, not everyone has the same perception of stress, and some people may be highly stressed about situations in life that are separate from academics. Therefore, perhaps it would be better to compare an individual’s organisation level with the stress they experience at school, in particular their workload and grades/exams. Comparing this between the “not at all organised” and the “mostly organised”, with the results being an average stress level of 3.25 and 3.25 for workload and grades/exams for the “not at all organised”, and 3.0 and 3.6 for the same with the “mostly organised”, still does not give much difference.

Perhaps the relationship between being organised and the stress level of the individual is based on a variety of other factors, such as the student’s own perception of stress, for example when someone is disorganised, which in theory should cause stress, does not experience much of it simply because they perceive it not to be a stress factor. Another factor could be due to age/year group in which different year groups have varying amounts of workload. This can stress students by the fact that even though they stay organised, the sheer amount of work can be overwhelming and cause stress for them.

Question 9: How many hours a day do you sleep on average?

The relationship between the number of hours of sleep and stress in this survey is quite strong.

(1 being the lowest possible score at least stressful; 5 being the highest possible score at most stressful)

Table showing the average amount of stress students experience across multiple factors when sleeping in varying amounts of hours

Hours of sleep	Workload	Grades/exams	Friends/family	Future plans
Less than 5	4.3	4.3	3.8	4.3
6-7	3.2	3.9	2.7	3.4
7-8	3.0	3.9	2.0	2.5
8-9	3.1	3.6	2.2	2.8
More than 9	2.4	3.0	1.7	2.3

By looking at the stress levels in students who slept from less than 5 hours a night, all the way to those who slept more than 9 hours, there seems to be a steady downward trend in numbers throughout all the respective stress level categories. This means the more hours students sleep each night, the less likely they experience

high-levels of stress. To further strengthen this relationship, none of the students who slept more than 9 hours chose “very stressed” when asked about their general stress in life, and half of the students sleeping less than 5 hours reported feeling “very stressed” in general. However, there were much fewer students sleeping less than 5 hours than those with more than 9 hours, so the figures could be disproportionate.

Question 10: How many hours of studying do you do per week?

Students who did less than 1 hour of studying per week had a stress average of 3.3 and 3.7 out of 5 in relation to workload and grades/exams respectively, while those who did more than 5 hours of studying were at 3.3 and 4.0 in the same category.

The former numbers from the “less than 1 hour a week” category sit near the middle of the stress range (from 1 to 5), and this could be due to some students feeling they do not need to study so hard, and therefore are not pushed and thus stressed to do so, while others in that same category may know of their need to study but so not do so and instead feel very stressed as a result, in which denial or study cramming could explain. Or in the serious case some students may be suffering from burnout, which the next question will cover more about.

The latter numbers 3.3 and 4.0 indicates that most students who study more than 5 hours a day are slightly more stressed about grades/exams. The small difference between the levels of students who study for less than 1 hour is unexpected, as we would think that more stress would be experienced with more hours of studying. The students who are stressed about workload and grades/exams could mean they have full schedules with not a lot of free time, which could lead to their physical and mental energy depleting and could potentially lead to burnout, from studying too hard with little effect. However, other students reported feeling little stress about workload and grades/exams, which could be due to them effectively managing their time and leisure activities, and spacing out their study times so they won’t tire themselves out. They could also be going through their study times productively, which will motivate them to study well the next time they do. This creates a positive study loop which in time gives students much less stress about their ability to study. Other ways in which stress can be reduced while working are to set reward systems, to stick to schedules and to stretch the study time over a long period instead of cramming.

An improvement that could be made in this question: because many students in the survey chose the “study more than 5 hours” category, it could have been more appropriate to further separate that into perhaps 5-7 hours of study, and then have another option for more than 7 hours per week. This way we can make possible trends or patterns clearer if they had existed.

Question 11: How many times a year do you get sick?

This question ties in to stress quite closely as it can be one of the physical signs of stress. Students who reported being sick less than 2 times a year had a mixture of not feeling stressed at all at one end of the spectrum, and very stressed at the other end, therefore there is no clear link between the students’ stress and sickness in the “less than twice a year” category. However, in the categories “7-10 times a year” and “more than 10 times a year” none of the students felt “not stressed” overall, so there might be a link, albeit weak, between stress and sickness.

Question 12: How often do you feel happy/positive?

This was the last question of the survey, and there was a correlation between the number of students who said they were “not stressed” and how often they felt happy. None of the students who were “rarely” happy/positive felt “not stressed”, and 1 person from “sometimes” happy/positive, 3 people from “quite often” and 8 people from “most of the time” happy/positive felt “not stressed”. Therefore, there is actually a link between how

positive people are and their stress levels. It is not to be said for sure, however, that one causes another, but that correlation still matters in terms of students' wellbeing and overall health.

In conclusion, there are many factors that affect students' stress and vice versa, such as academics, social life, physical and mental health, and no matter what, the main goal in school is to strive to achieve your best, but to also keep in mind that life is not all about studying and that we can de-stress once in a while and enjoy life.



The Pathways of a Psychology Degree

By Maxine den Hartog
Year 12



Psychology degrees provides a foundation for many careers and develops knowledge on the human mind and behaviour. It is the study of interactions, behaviour, thought and people and the way in which people interact. However, a common misconception is that psychology and psychiatry are the same. Psychology is the study of human behaviour whilst psychiatry is the study of diagnosis and management of mental disorders.

With a psychology degree, there are many career options available. Some link directly with the study for example a clinical therapist, whilst other are far-fetched, such as a detective. However, there are limits as to what profession you pursue based on your type of degree. There are generally four main fields of work that a psychology degree may take you; healthcare and therapy, education, research, and some less typical careers such as advertising.

Healthcare and Therapy:

This type of career encompasses chartered psychologist, psychotherapists, social worker and counsellor.

Chartered psychologist:

This is a highly specialised field as you work with people from various different backgrounds. It involves analysing the behaviour and emotions of your patients and your clients whilst also advising them how to approach certain situations and deal with these emotions. A chartered psychologist can also be more specialised, delving into sport psychology, mental health, educational and occupational. In order to become a chartered psychologist, it is highly

preferred to obtain a Psy.D or PhD in Psychology. A Master's degree and Bachelor's degree is also required, therefore accumulating to around 8 to 12 years of higher education.

Psychotherapist:

A psychotherapist will attend to various different clients and patients, for example couples, or groups. The purpose of a psychotherapist is to help groups of people overcome certain psychological issues that may be disturbing them. It involves the treatment of these patients using more psychological (relating to the mental state of the patient) than the medical treatment. In order to pursue this career, a Master's degree in psychology is typically required, or a social science degree. The completion of a post-graduate internship is also preferred. This will accumulate to around 5.5 years of higher education including internship minimum or a maximum of 8 years of higher education including internship.

Social worker:

The aim of a social worker is to alleviate the conditions of people in need or welfare. This surrounds patients such as children, elderly, victims of abuse or unlawful activity, or people with disabilities. Often, social workers will work inside of homes, schools or hospitals. In order to become a social worker a Bachelor's degree is required which usually takes around 3-4 years to complete. If you aim to provide therapy, it is highly advisable to also get a Master's degree which can take another 2-3 years to complete.

Counsellor:

A counsellor gives guidance related to and social, personal or psychological problems. A counsellor works with patients in a very confidential setting where you are required to listen attentively, sympathise and empathise with your clients. Counsellors can come in very many forms such as sports counsellor and career counsellor. This allows you to choose a specific field in which you feel more comfortable. A counsellor's role however is not to provide advice, more to analyse the situation and evaluate the best way in which to help the patient cope with it and involves a form of therapy rather than medical help. In order to become a counsellor, a Bachelor's degree and Master's degree is required, and depending on the program, a one-year internship. This can amount to around 6-8 years of higher level education.

Education:

In terms of education, there are two main areas of interest; educational psychologist or a teacher of psychology. The purpose of an educational psychologist is to analyse and help youth in educational settings particularly focusing on learning disabilities. A Bachelor's degree and a Master's degree, and it is again highly recommended to obtain a doctorate degree (This can be further specialised to obtain an Ed.S. or an Ed.D.). Therefore, in total, it will take around 6-8 years without a doctorate degree or 6-12 years with a doctorate degree.

Being a teacher of psychology, an additional teaching qualification is essential. To teach in universities or colleges, further qualifications such as a Master's or a PhD is required. This career path can take around 6-12 years to reach.

Research:

Psychology careers in relation to research are often situated in research agencies, universities, or public and private organisations. This career will not only involve research, but elements of teaching can often be incorporated within it. Pursuing a research career allows you to approach different elements of research, may it be for government research or a non-profit organisation. A PhD is often required however a Psy.D is accepted by some organisations. This will therefore add up to around 8-12 years of higher education excluding internships.

Less Typical Careers:

These types of careers can include business administration or media psychologist. It doesn't involve any clinical practices of psychology, yet uses knowledge and understanding of how people behave

in groups or react to certain things into account. A Master's degree is preferable however some organisations will employ those with a Bachelor's thus amounting to around 4-8 years of higher education.

These are only some of the many different career paths one might take when studying psychology in university. In order to include more job opportunities, below is a list of some other jobs that haven't been mentioned before depending on academic attainment courtesy of careersinpsychology.org

Bachelor's Degree:

- Case manager
- Rehabilitation specialist
- Psychiatric technician
- Human Resource manager
- Business administration
- Top - or mid-level management
- School Counsellor
- Marketing or advertising manager
- Laboratory assistant
- Law enforcement and corrections
- Career Counsellor

Doctorate Degree:

- Clinical psychologist
- Counsellor
- Private practice
- Engineering psychologist
- Industrial psychologist
- Administrative hospital psychologist
- Neuropsychologist
- Forensic psychologist
- School psychologist
- Researcher/Experimental psychologist
- University professor
- Applied psychologist
- Cognitive psychologist
- Psychotherapist

Master's Degree:

- Executive coach
- Media psychologist
- Counsellor aide
- Psychology professor
- Behaviour analyst
- Psychological associate
- Addictions psychologist
- Residential youth counsellor
- Residential youth counsellor
- Human service worker
- Hospital patient service representative
- Legal psychologist
- Statistical assistant
- Community recreation worker
- State agency counsellor
- Victims advocate
- Director of volunteer services
- Child care worker
- Diversity manager
- Juvenile justice detention officer
- Correctional field officer
- Employment counsellor
- Special education teacher
- Behavioural therapist
- Court consultant
- Marketing or advertising manager
- Behaviour health psychiatric nurse
- Psychologist supervisor
- Social service director
- Media buyer
- Director of fundraising



