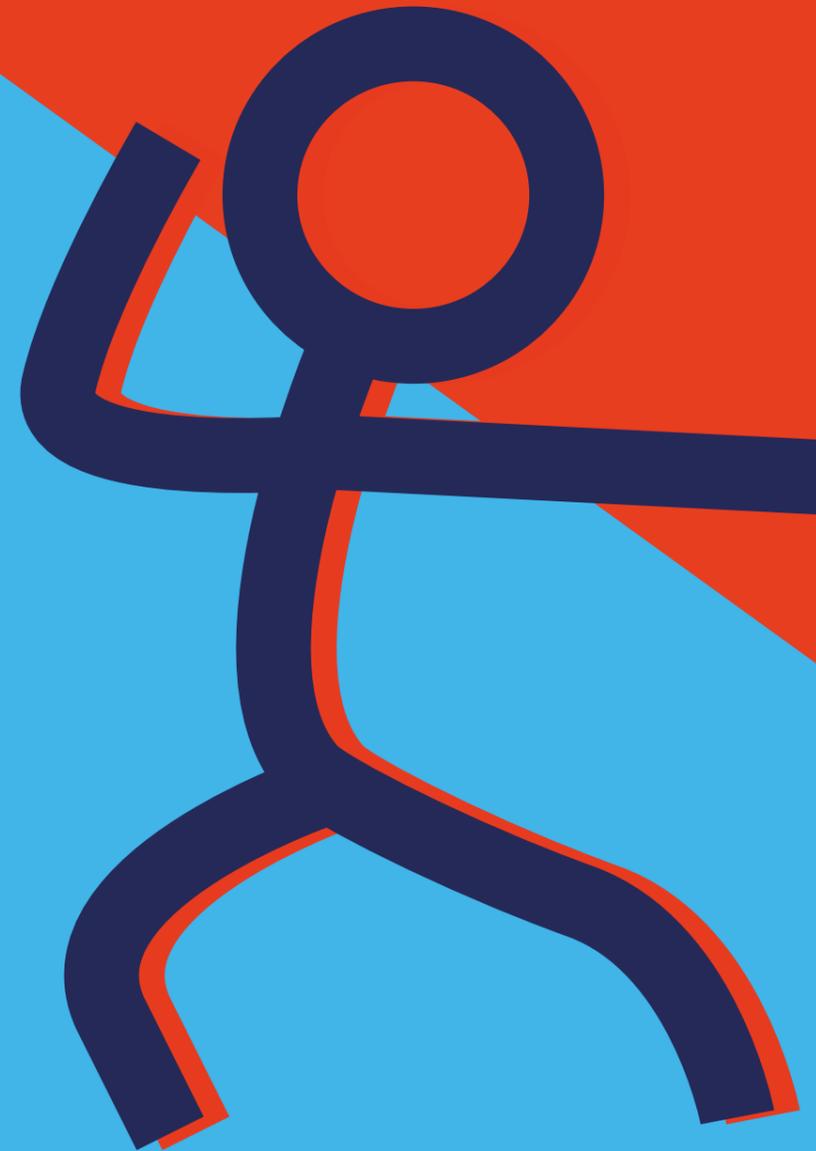


**BETHANY FITT**

**DG3S41**

**RESEARCH PROJECT**

**INVESTIGATION**



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# FRAMING MY QUESTION

The first stage of this research project was to choose a topic for investigation that I wanted to develop my understanding of. It was crucial I chose a topic whereby I could critically select specific areas of investigation and devise a measurable plan to help me gather data and experiences which I could compare to explore for any emerging trends .

I started off with an initial mind map branching of from 7 topics I had identified such as students and sports and wrote down any thoughts and ideas I had relating to those topics. After analysing each topic I decided that the link between mental health and physical activity would be the most fitting topic for me to challenge and investigate further. Hence I came to the decision that my initial research question would be **“how can design be used to better understand the link between physical exercise and mental health”**





It was paramount at this stage of the project I kept my question open with the potential to adapt further down the line based on the results from any research completed. I felt that this was the most appropriate topic for me to investigate because it's a relatable and personally interesting subject for me. I haven't always been interested and engaged with the issues of physical exercise and mental health but within the last few years I have become personally involved with these topics so I wanted to investigate them further. Whilst I know a lot about my own personal experiences within these areas it's the experiences of others I know little about and that's something I want to explore further and develop my knowledge on.

**“HOW CAN DESIGN BE USED TO BETTER UNDERSTAND THE LINK BETWEEN PHYSICAL EXERCISE AND MENTAL HEALTH”**

# **FRAMING MY QUESTION**

I ultimately want to better understand the link between exercise and mental health. This might lead me to some interesting discoveries which will help me transition smoothly into part 2 of this investigation project. I feel that there is a problem to be solved within this topic; millions of people all over the country experience mental health problems, additionally many people are inactive and overweight. Similarly there are millions of people who don't struggle with their mental health and millions who exercise and keep active. I want to examine each of these areas to see whether there is any correlation between them and to see how close the connection between the mind and body is to ultimately understand how I could potentially solve any problems I come across within this area.

# AIMS AND OBJECTIVES

Next I set out a list of aims and objectives which helped build the structure for my project. I precisely planned out exactly what I wanted to gain from the project and followed it closely to ensure my work would flow well and it would be easy for someone reading my report to easily identify the true meaning of my work.

**Aim 1: To gain a deeper understanding of the impacts physical activity can have on your mental health**

**Objectives:**

**1): critically research existing articles and sources of information as well as gaining insights into personal experiences by interviewing people or asking them to complete surveys in order to gather data to accurately determine whether physical activity has any influence on your mental health**



# AIMS AND OBJECTIVES

**Aim 2: Learn how I can encourage more people to partake in physical activity to better improve their physical and mental wellbeing**

**Objectives:**

**To strictly examine and inspect existing journals, reports and websites to congregate material around the subject to improve my knowledge in engaging people in physical activity**

**Aim 3: Break the stigma with mental health and get people to talk about their feelings**

**Objectives:**

**To conduct my investigation sensitively to which people will feel encouraged to speak out and share their feelings in a safe and confidential environment**

**Aim 4: To investigate the topics in a fun and engaging way**

**Objectives:**

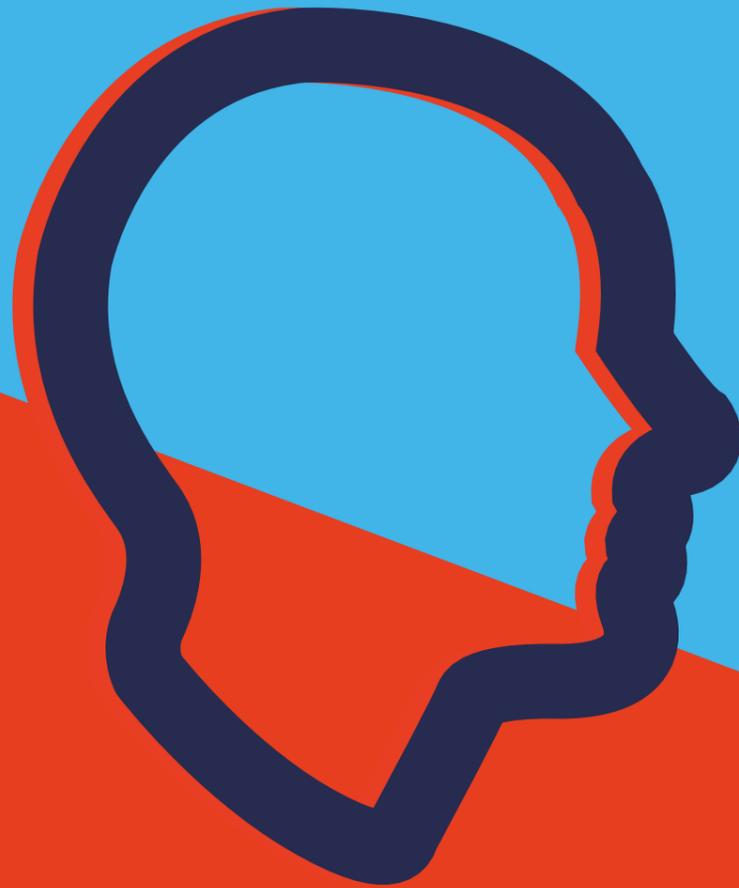
**Cautiously explore the subject of mental health struggles and physical wellbeing including people who experience these issues**



**Whilst I believe there may be some connection between the two topics It's important to investigate each separately to understand them totally before I begin to investigate the link between the two and the degree in to which it exists.**

# MENTAL HEALTH RESEARCH

It's a relevant but often taboo subject in today's society but there's no denying that mental health issues do exist. **McManus, S., Meltzer, H., Brugha, T. S., Bebbington, P. E., & Jenkins, R. (2009) as cited in MIND(2017) states that 1 in 4 people in the UK will experience a mental health problem each year.** This equates to nearly 17 million people, this is a staggering amount which continues to rise year on year. There are more than 200 classified forms of mental illness as MHA(n.d) states. This can range from anxiety disorders, eating disorders to depression and personality disorders all which can affect how we think, feel and act. Mental health issues can arise from a number of sources such as financial worries, relationship strains and substance abuse. Due to the multiple potential origins of mental health issues it can be a complex subject to understand. Many people who suffer with mental health issues often suffer with accompanying symptoms which may stop or prevent them from keeping active.



Moving slowly, having aches and pains, constant fatigue along with fluctuating weight can make it difficult or sometimes dangerous to participate in exercise. However, the severity of symptoms vary immensely between each person making each case of mental health issues extremely unique. Currently there are a number of services and solutions to help people manage their symptoms such as medication and cognitive behavioural therapy but many aren't readily available. People seeking help with their mental health are being kept on "hidden waiting lists", with more than 122,000 patients waiting more than eight weeks to see a doctor again after their first appointment as Gregory(2019) illustrates. This makes it hard for people to assess what problems they might have and consequently find the method best suited to help them manage their struggles should they need it.

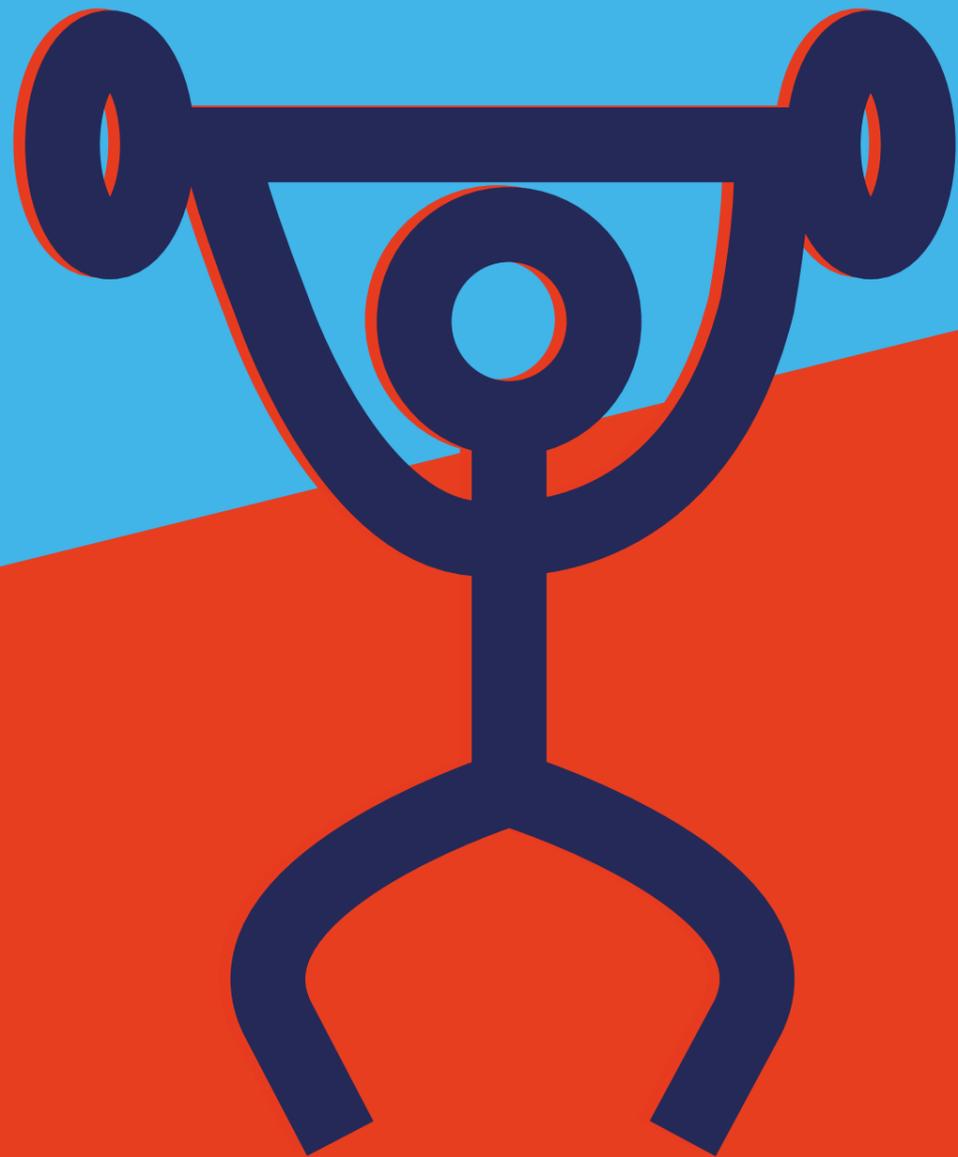
A number of current treatment methods however have been found to have some negative effects. **Antipsychotic medication...have not been effective in treating primary negative symptoms, such as apathy, lack of emotion, and poor social functioning as Brauser(2017) explains. Notably MHFA England(2019) states 70-75% of people with diagnosable mental illness receive no treatment at all.** Having such a lack of help and support can make it extremely difficult for people to lead normal lives despite any obstacles they might be facing. Unfortunately mental health is still a taboo subject in today's society and not enough people talk openly about it. Social and self stigma around mental health is a strong contributing factor to increased stress, anxiety and discrimination when seeking treatment and often worsens the outlook of some conditions. This shame that people often face can make it challenging for people to be aware of what they can use to correctly manage their issues whether it would be from simply opening up to a friend, using exercise to clear the mind or getting professional help in the form of therapy or medication.

# MENTAL HEALTH RESEARCH



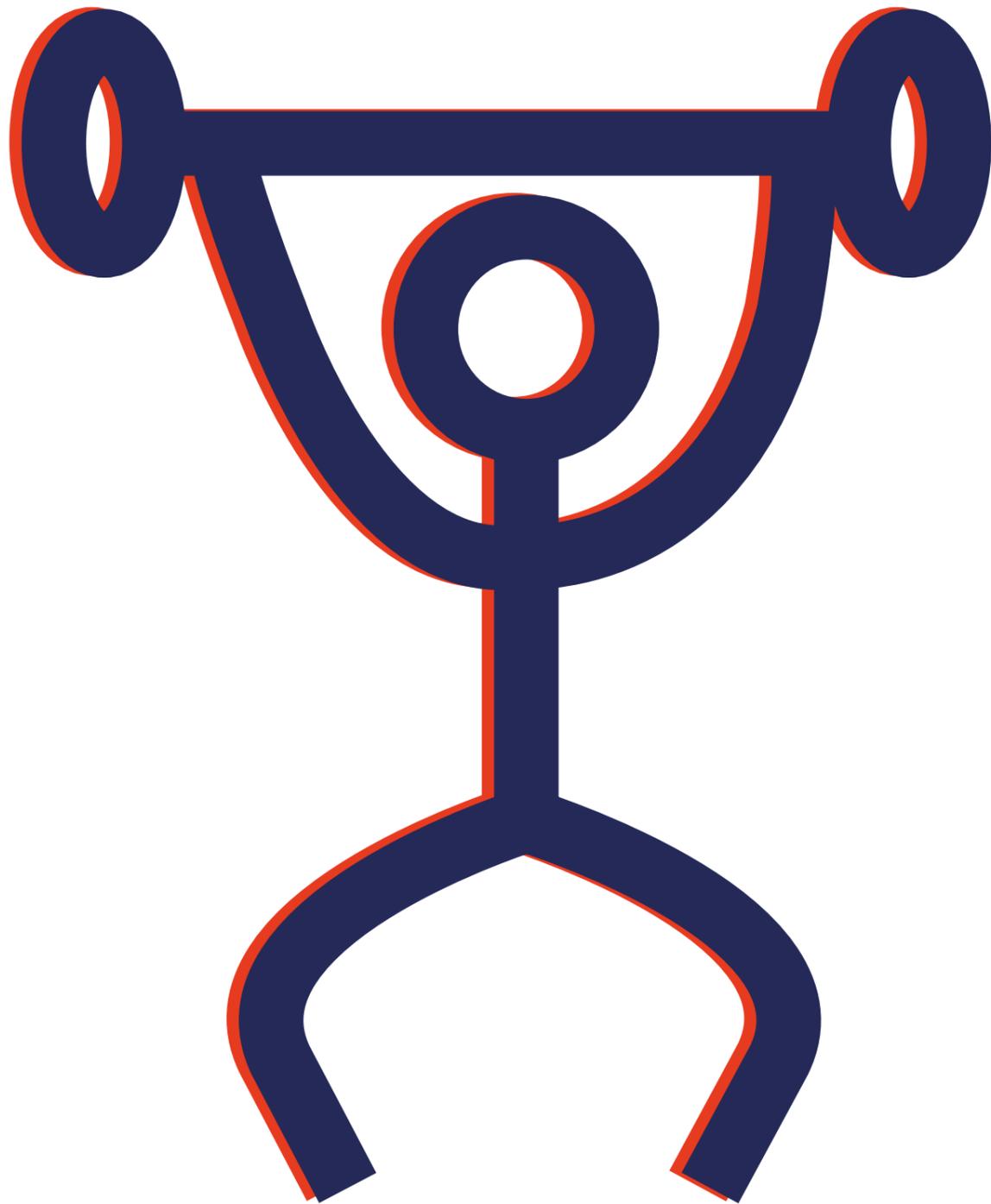
# PHYSICAL EXERCISE

Physical exercise is the act of performing an activity with the aim to improve or maintain physical fitness and overall health. In a recent article **David Lange(2019) Illustrates that around 8.9 million people take part in fitness activities for at least 150 minutes per week.** That's just under an 8th of the population that keep active on a weekly basis, however that means there's still almost 58 million people who are not getting enough physical exercise incorporated into their lifestyle. Physical exercise has always always had a plethora of positive benefits including reduced risk of heart disease, stronger bones and stronger muscles.



Despite the range of positive impacts **Lancet Global Health(2018) reveals that over 1 in 4 people worldwide live a physically inactive life.** Physically inactive lifestyles can increase the risk of mental illnesses and physical diseases which can make it hard for people to participate in exercise. It then turns into a vicious cycle where it is difficult to participate in physical activity due to your physical and mental health being so poor. There are often a variety of reasons why people may not participate in physical exercise such as mental health struggles, limited time and no money. People aren't seeing exercise as a priority and are preferring to do other things in their free time.

# PHYSICAL EXERCISE

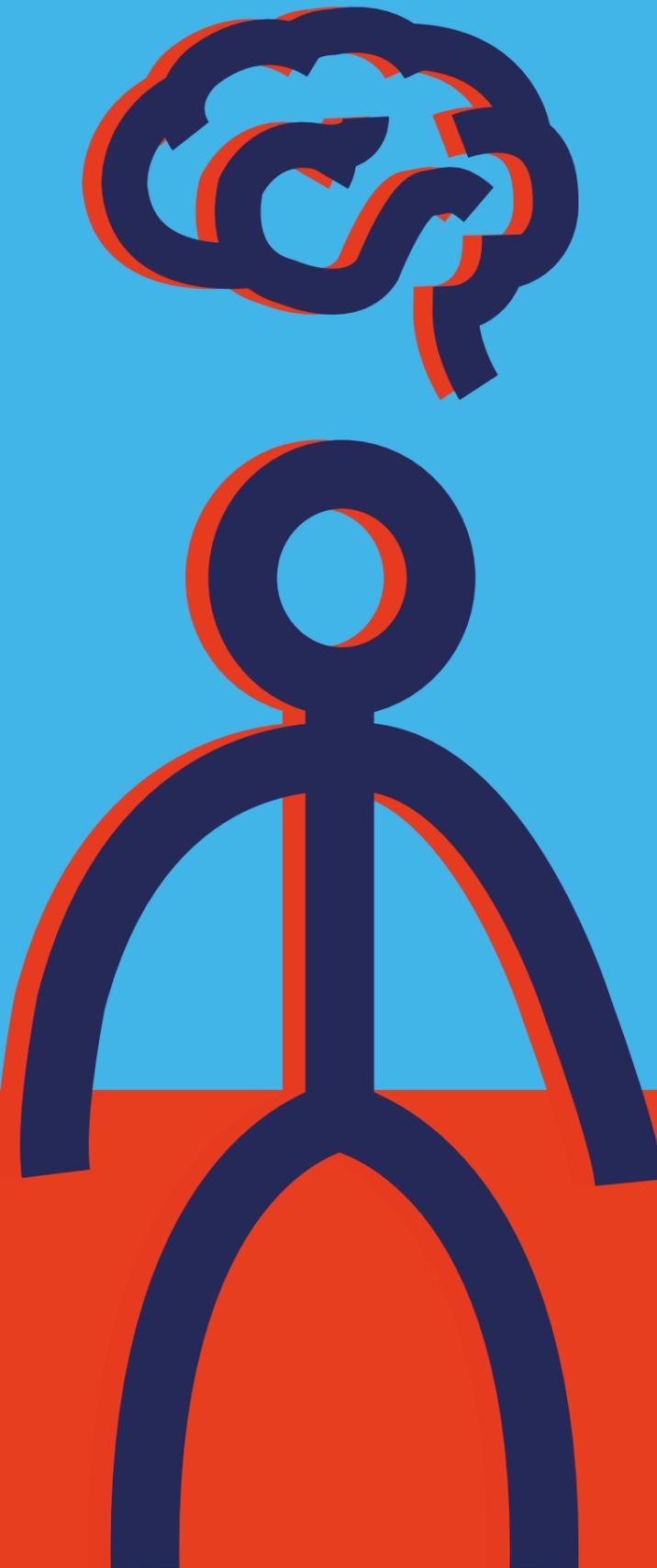


There are 10 types of physical activity branching off into a number of different sports and styles of fitness. It is speculated that there are over 8000 sports across the globe and several more fitness disciplines. People can become overwhelmed and intimidated looking at the various fitness options out there but it is simply about finding what is right for you. Every individual has different preferences and needs so only certain methods will work for them. Physical exercise particularly bodyweight exercises are extremely adaptable making them suitable for anybody regardless of their current health and fitness experience levels and are often best suited for those who are just starting out with working out as is it just based upon your own bodyweight. Additionally these types of exercises can be done without a gym membership, from home in the comfort of your own room and some efficient workouts can take as little as 10 minutes.

# MIND AND BODY

Moreover these 2 subjects do often come into play together with a number of sources claiming how great physical health can improve your mental health and vice versa. **According to Active Norfolk(2020) some of the most common benefits of exercise include improved mood, increased concentration, better sleep, self confidence and reduced risk of stress and depression.** All benefits which help with improving mental wellbeing. Scientifically the claim that there is a profound link between physical exercise and better mental health can also be proven.

HealthDirect(2019) illustrates that exercise pumps blood to the brain, which can help you to think more clearly. It also increases the size of the hippocampus, the part of the brain responsible for memory. Additionally it increases the connections between the nerve cells in the brain. This improves your memory and helps protect your brain against injury and disease. Insufficient physical wellbeing can lead to an heightened risk of establishing mental health issues.



Research strongly illustrates that emotional distress makes you more vulnerable to physical illness by impacting your immune system emphasizing that working on your mental resilience is just as important as your physical wellbeing. **Higher self-esteem...Your thoughts, feelings, and experiences influence the way you feel about yourself. Good emotional health helps you see the best in yourself despite challenges...[as well as having] More energy. Having a positive outlook makes you feel more energized and helps you focus and think more clearly, whereas poor emotional health depletes your mental resources and leads to exhaustion as Lamothe(2019) explains.** The link between mind and body in terms of physical activity can however be a dangerous territory. For those who suffer with mental health issues such as anorexia, bulimia or body dysmorphia exercise and physical appearance is often the reason for their mental health struggles.

# MIND AND BODY



**1 in 50 people struggle with BDD as ADA(2018) illustrates. Living with dangerous illnesses like this can mean that there is a severe apprehension with physical exercise participation or exercising might be used extremely without the right intentions. BDD often concerned with other existing mental health issues like depression is commonly perceived to be caused by exercising and gym addictions. Rosenfeld(n.d) however disputes this and says that it's often due to genetic predispositions that lead to the disorder and those with a predisposition it is possible that beginning a fitness program [and] spending significant time focusing on appearance/shape may contribute to the emergence of symptoms of the disorder however those who practise regular fitness don't develop BDD. Those within such industries like bodybuilding and competitive sports often develop these dangerous conditions. A sub type of BDD, muscle dysmorphia occurs within these types of people, they personally believe that they are too small and the obsession with building muscle and size overtakes their life and wellbeing. People with these physical appearance disorders have an unhealthy relationship with exercise and their mental health participating in practises and habits which are damaging their physical and mental health. Research shows that getting the balance between good physical and mental health is the key as both can so strongly influence each other. Recognising upsetting emotions as they arise, learning how to deal with them along with finding the right coping strategies is the combination for success when wanting to lead a happy and healthy life.**

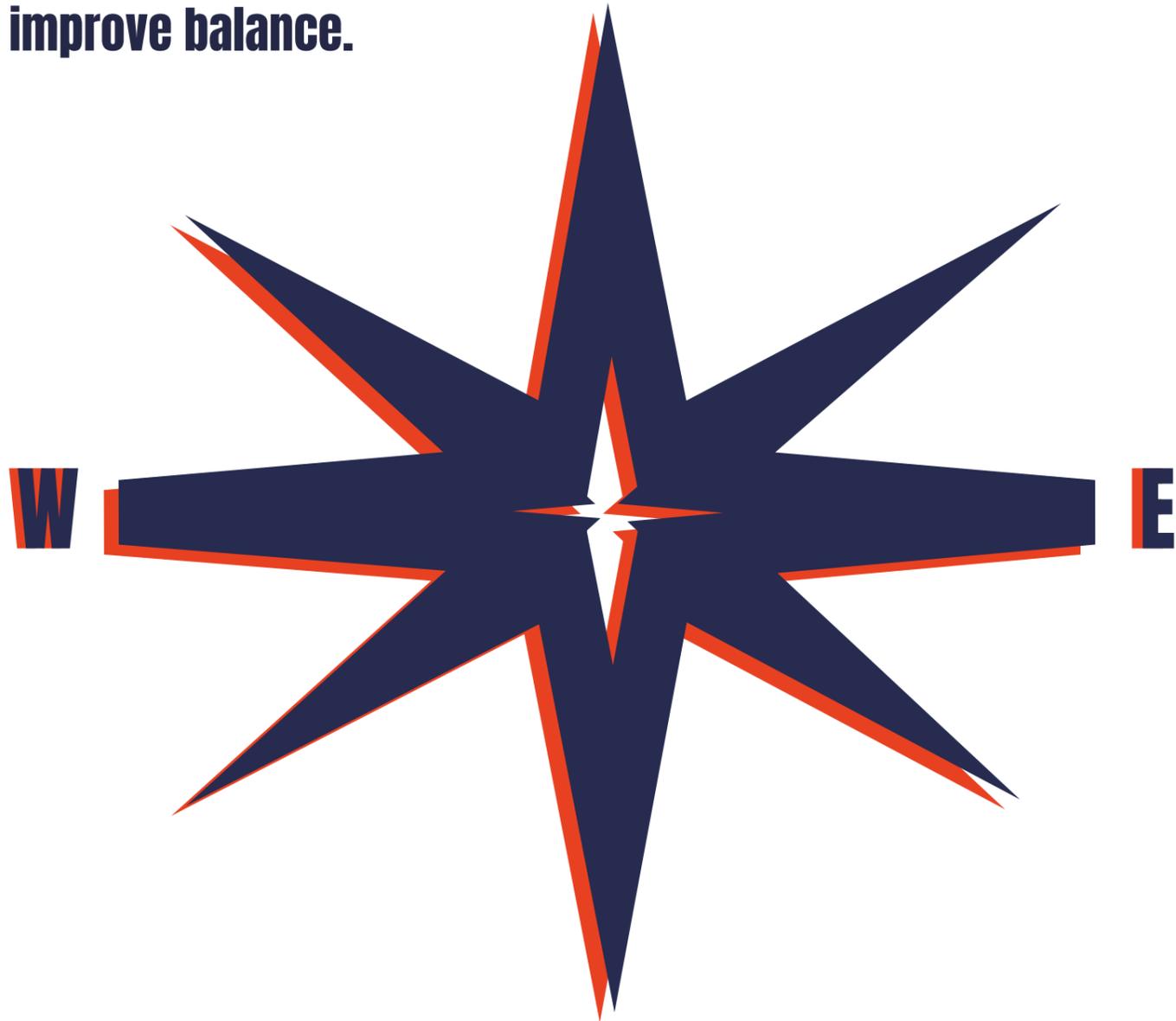
# EASTERN VS WESTERN STYLES

Traditionally western styles of fitness like weightlifting focus primarily on physical appearance and performance rather than how you feel inside. This is often the problem which leads people to developing mental disorders, physical diseases or generally feeling more self conscious due to existing mental health struggles. Western styles of fitness focus strongly on the use of a gym, something which millions of people around the world do. However for some the environment of a gym isn't the most comfortable or encouraging environment. Since a gym is open to people of mixed abilities, people might feel pressured to keep up with someone else's pace, some of the equipment might seem intimidating and it is often hard to know what to use it for. Roberts(n.d) states that over a third of young people say they feel too self-conscious to start working out at the gym. Exercises originating from eastern cultures can offer just as many physical and psychological benefits as western methods if not more whilst providing people with a fitness style which is a lot less prone to causing people injuries and mental health conditions. Eastern exercises also often include meditation which can significantly reduce stress levels which helps with disease prevention being much more beneficial to mental health. Kane(2018) also states a number of additional positive benefits such as increased life span, increased strength, flexibility and boosted cognitive function. Specific exercises like the self defence method of tai chi can help build muscle as well as reduce arthritis and improve balance. Additionally eastern styles have the potential to be used in conjunction with western styles if this best suits the individual. Red delta project(2011) educates that the eastern style of fitness is more unified and helps to provide a more realistic and practical way to fit diet and fitness into your lifestyle. Eastern styles are becoming increasingly popular with recreational fitness lovers along with professional athletes. Between 2012 and 2016 the number of Americans doing yoga grew by 50% as The Good Body(2018) explains whilst PTDirect(n.d)adds that gym attendance has been decreasing over time showing that western styles of fitness are losing popularity.

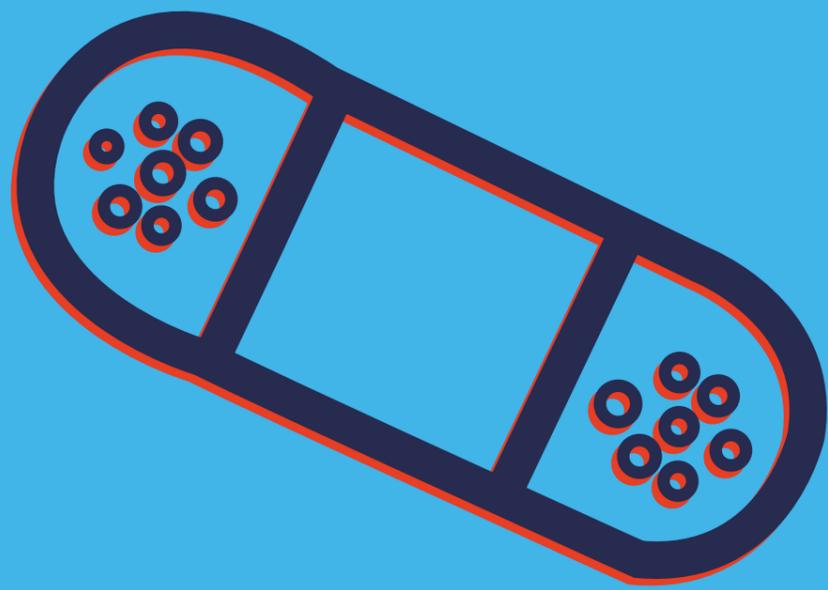


# **EASTERN VS WESTERN STYLES**

**Exercises originating from eastern cultures can offer just as many physical and psychological benefits as western methods if not more whilst providing people with a fitness style which is a lot less prone to causing people injuries and mental health conditions. Eastern exercises also often include meditation which can significantly reduce stress levels which helps with disease prevention being much more beneficial to mental health. Kane(2018) also states a number of additional positive benefits such as increased life span, increased strength, flexibility and boosted cognitive function. Specific exercises like the self defence method of tai chi can help build muscle as well as reduce arthritis and improve balance.**



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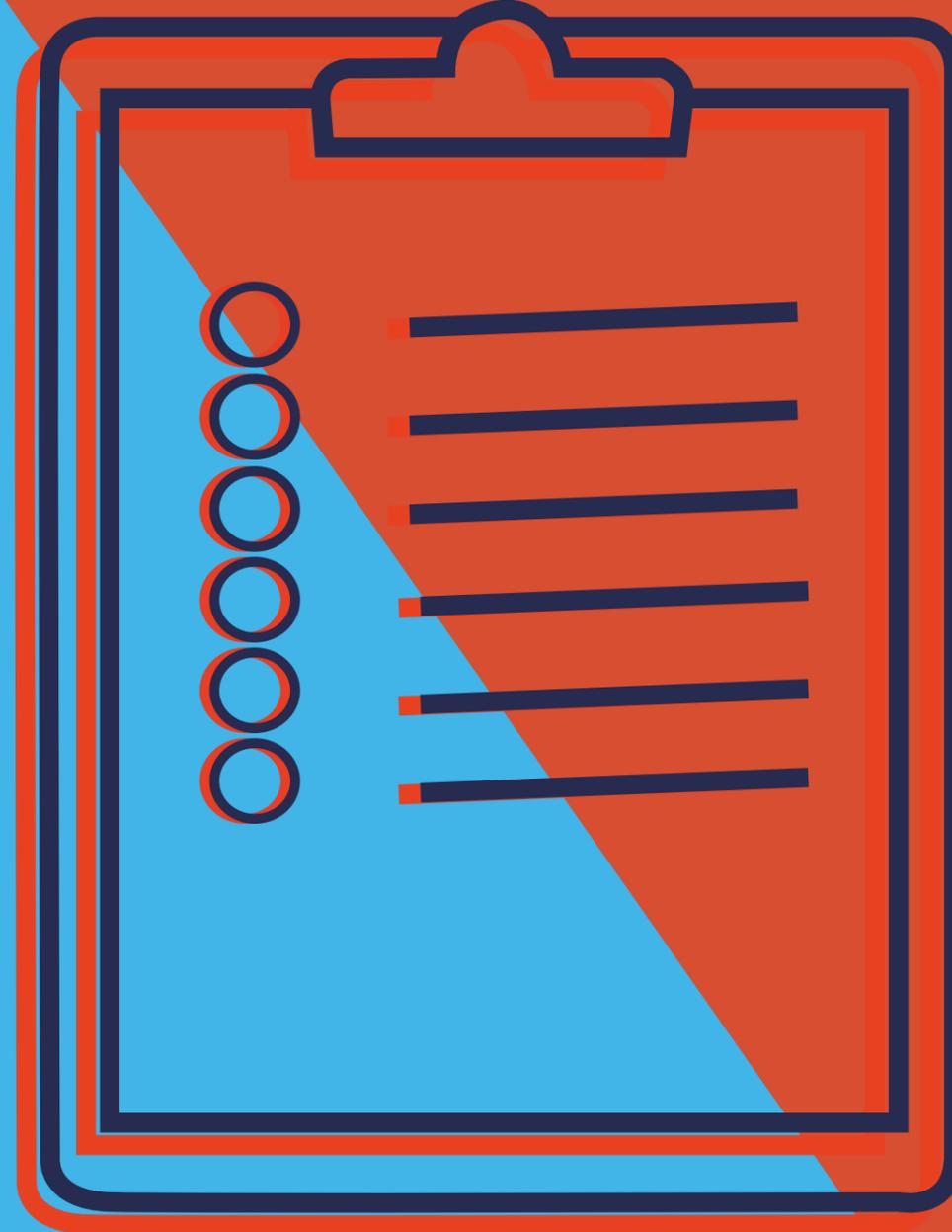
# QUICK FIXES VS LONG TERM HABITS

In regards to both mental health and physical wellbeing taking steps to improve either can be a daunting task but are extremely beneficial in the long run.

Once you start working to improve one they will often both work together in tandem. You can't get rid of all your mental health worries nor lose a significant amount of weight overnight but setting a strong measurable plan with healthy and achievable goals can help worries and struggles improve over time. Fad diets for example don't work. Laskey(2020) states that This happens because most fad diets don't address permanent changes, such as healthy food choices and regular exercise, that are necessary to keep pounds off. Without a foundation of healthy habits, you're likely to return to your starting weight. Similarly with your mental health if you're not setting long term goals or realistic expectations for yourself to help implement positive and permanent changes into your lifestyles then it's unlikely to see any long term positive changes. Forming long term habits are a lot more effective than quick fixes.

# SUMMARY OF RESEARCH

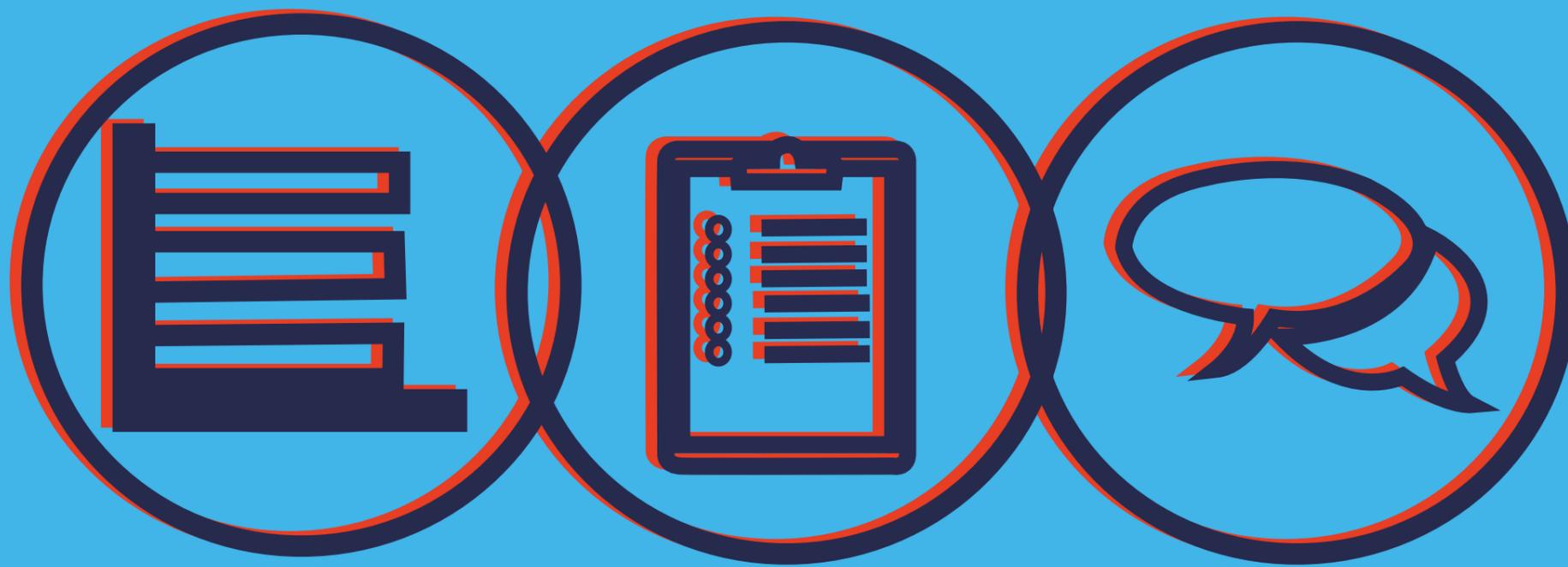
**I found that there was a legitimacy issue with the information and data found on the link between physical exercise and mental health. Each topic separately is well explained and is data/information rich but despite some positive claims there's not a lot of evidence to back up whether people experience the benefits. Additionally current existing methods of treatment for patients with mental health issues aren't easily attainable and by making people wait for diagnosis or treatment is going to make the situation worse, exercise could help this. I feel I have found a problem within these 2 areas and want to use my knowledge and design thinking skills to encourage people to engage in physical activity improving their physical and mental health simultaneously. I would like to continue my research to better understand whether the claims about the positive benefits of exercise on mental health are true. This will ultimately lead me to believe whether this is the avenue I want to continue going down.**



# PROJECT PRESUMPTIONS

**From primary research as well as the research methods yet to be carried out my hypothesis and initial prediction is that I will be able to confirm that regular exercise leads to better mental health and people are willing to use exercise as a means to helping their physical and mental wellbeing. Additionally I will be able to find out people's understanding, familiarity and experiences with eastern styles of fitness leading me to a more concise understanding as to what methods people would be willing to try.**



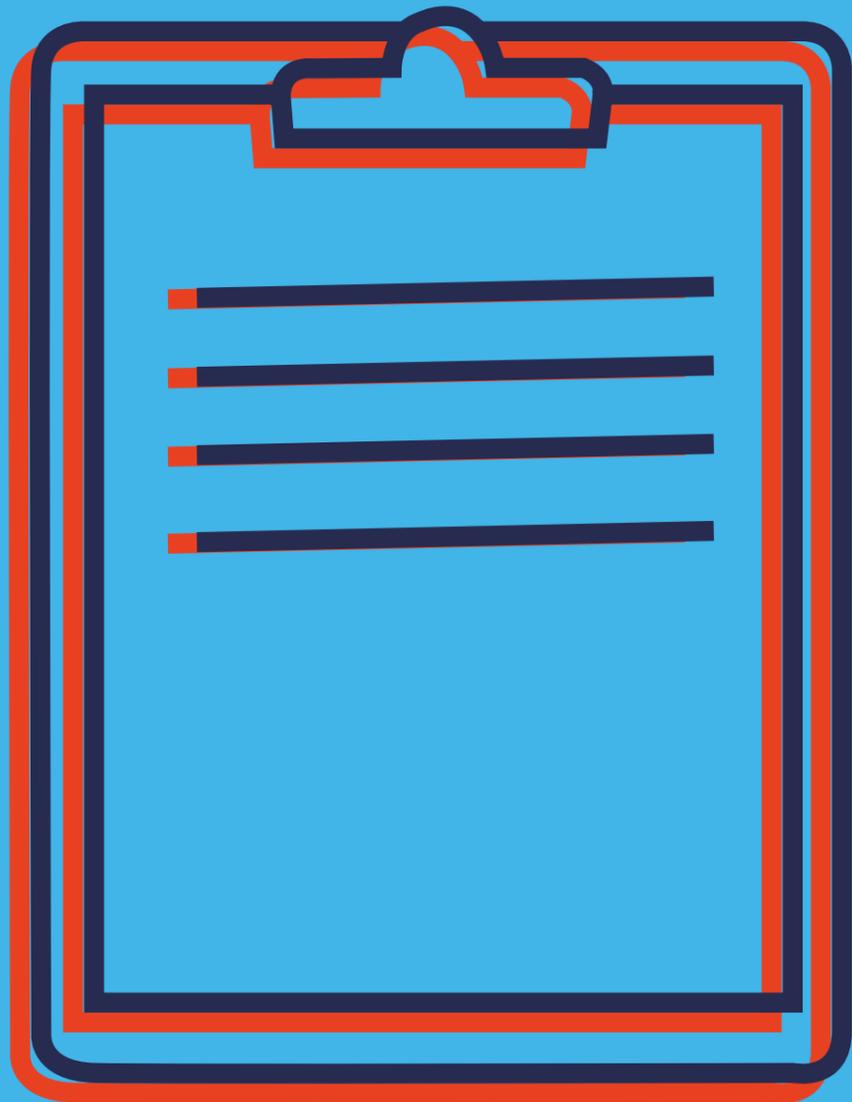


# RESEARCH METHODS

**From my primary research I decided I wanted to take a human centered approach and find out for those who exercise what positive and negative mental effects they experience as well as those who don't exercise why they don't and if they would consider physical exercise as a means to improving or maintaining their mental health. I decided initially I wanted to take a single method approach as there were a number of groups and varying demographics I wanted to target and an online survey seemed the most appropriate method. However upon completing the survey I found that I still wanted to delve deeper into whether people would consider eastern styles which predominantly work on mental wellbeing so I conducted some interviews targeting specific people in order to gain a deeper understanding into people's opinions and considerations.**

# **METHOD : 1**

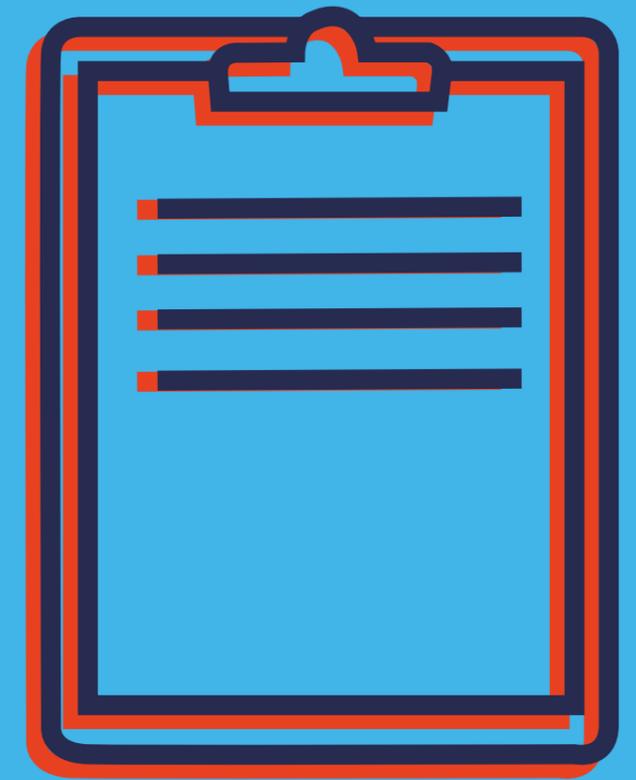
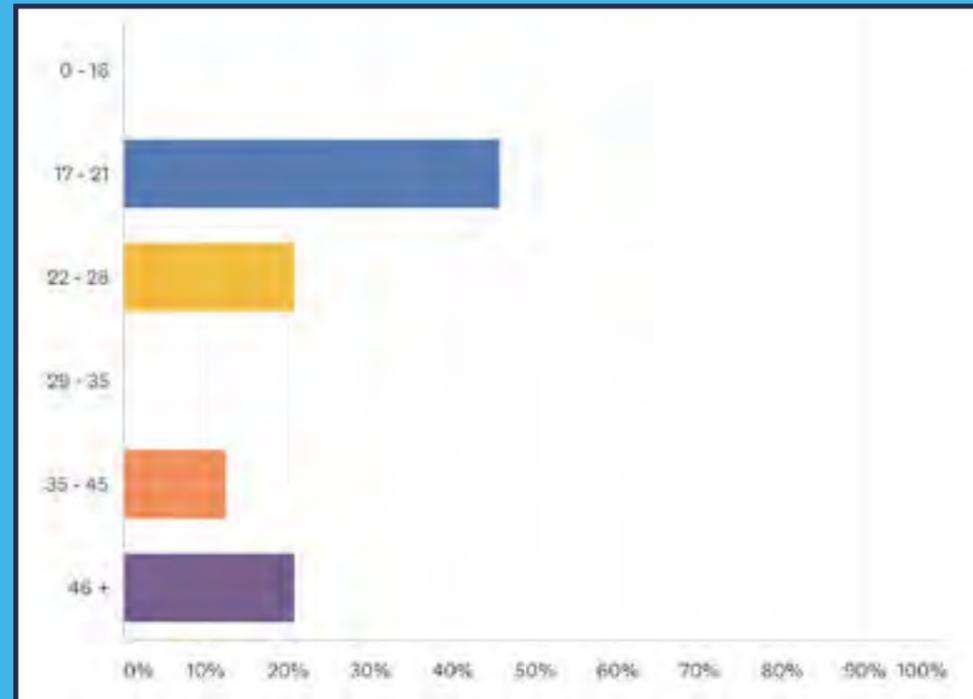
## **SURVEY**



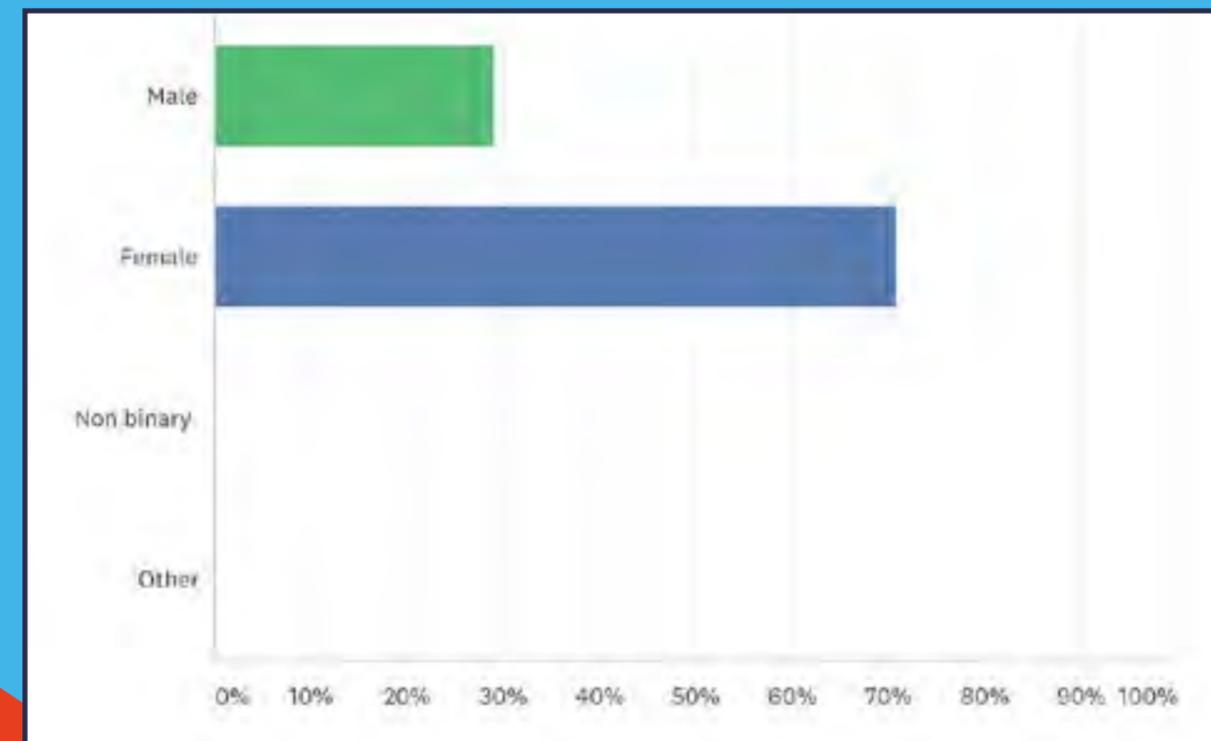
**I decided to go for a structured survey approach to gain quantitative data. I wanted to ensure all respondents had the same questions so answers could be analysed and turned into statistics which I would use to search for themes and trends. My survey consisted of 9 questions aimed at those who exercise and those who don't to find out their reasons for and against doing it. My questions ranged from asking the respondents age, fitness habits and opinions on said topic in order to gain the most well rounded set of answers I could use to help confirm and support my prior research helping me advance in the project. I was able to get a varied amount of responses answering multiple questions, some considered personal. By making the survey anonymous I was able to ensure confidentiality for all who participated and to get people to answer questions around a sensitive topic effectively achieving my third aim of breaking the stigma with mental health and getting people to talk about their feelings and experiences.**

# DISCUSSION (FINDINGS)

## SURVEY



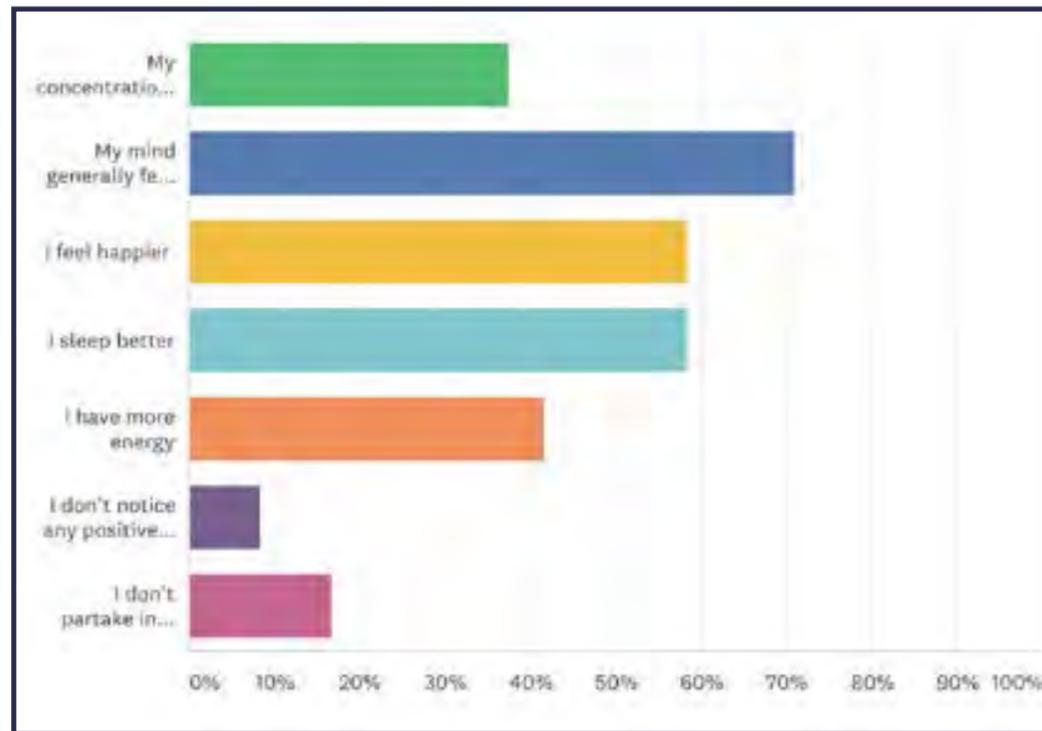
I sent my survey via facebook and gave a few days for the responses to come through. I found this method was extremely helpful and beneficial due to how quickly I was able to gather responses. Once I had responses from multiple demographics I had data I could compare to find trends and themes. Responses were all pointing in the same direction and collectively strongly supported my hypothesis. Additionally supporting my presumptions those who recorded they did regular exercise rated their mental health higher than those who didn't and this applied to each age group of participants who answered the survey. Whilst the 17 - 21 age category rated their mental health lowest on average it had the highest percentage gap between exercise/good mental health vs no exercise/bad mental health (12%).



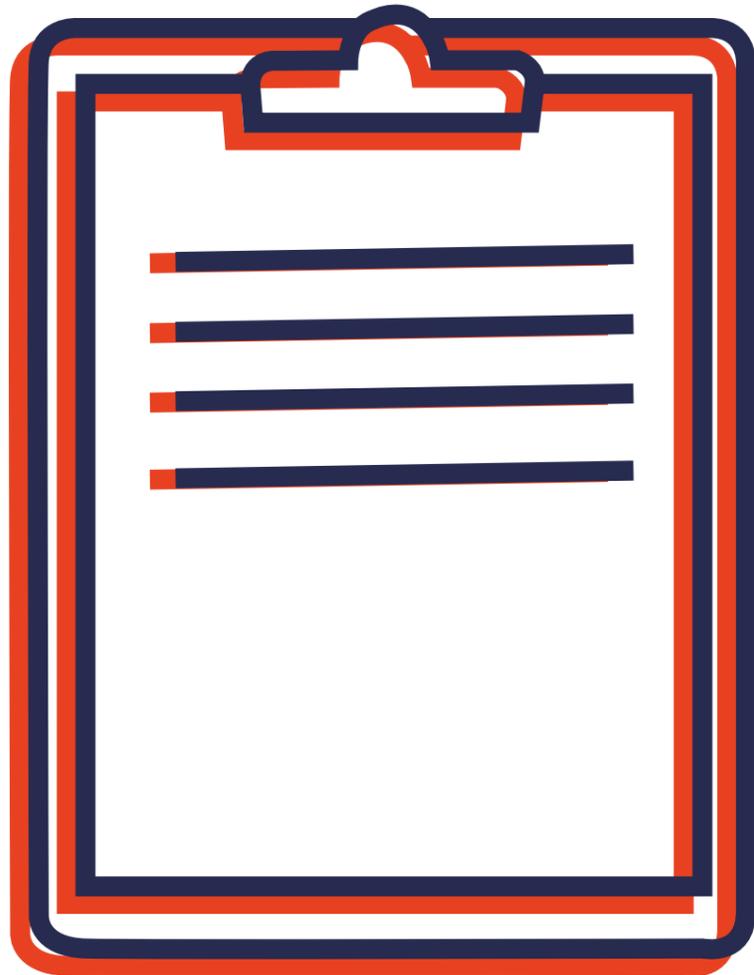
# DISCUSSION (FINDINGS)

## SURVEY

As the age categories increased I saw an increased rating in positive mental health but a smaller gap between ratings based on those who exercise and those who don't. This was an interesting insight for me and gave me the conclusion the most at need group for giving help and advice to was young adults. This group would also be most attainable for further questioning as I attend university with many people around that age so would be able to access this demographic quickly and easily. The majority of those recording they participated in regular exercise (70%) regardless of age said the most profoundly positive benefit has been the fact their head has felt clearer.



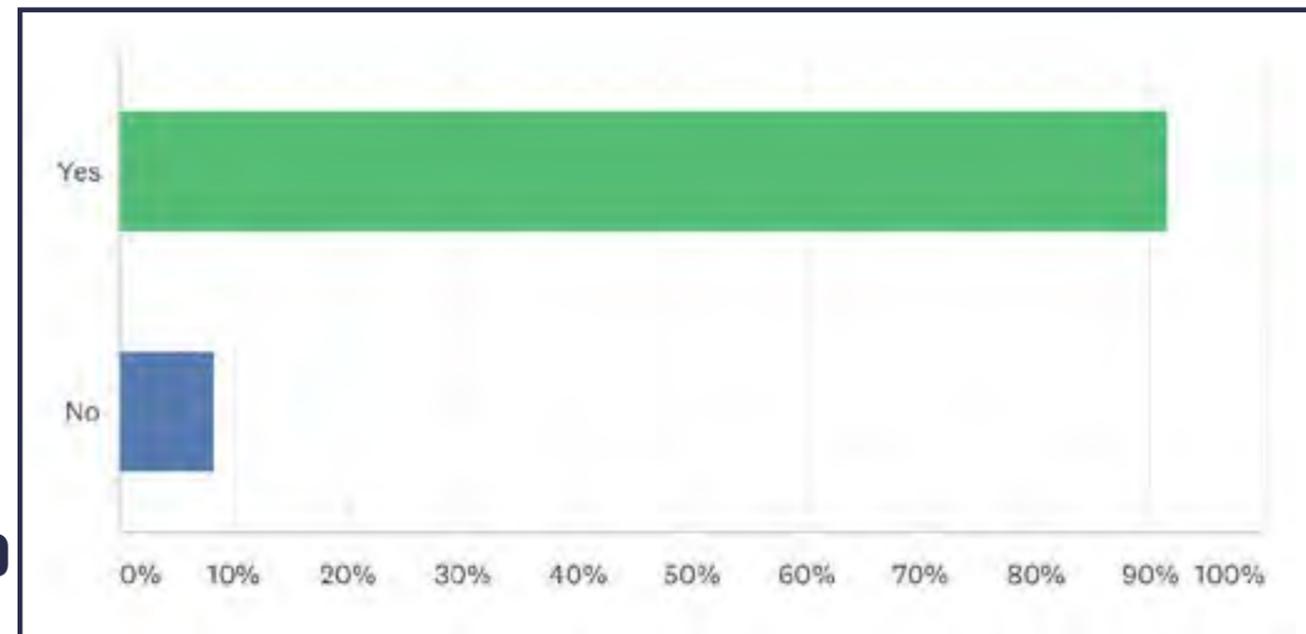
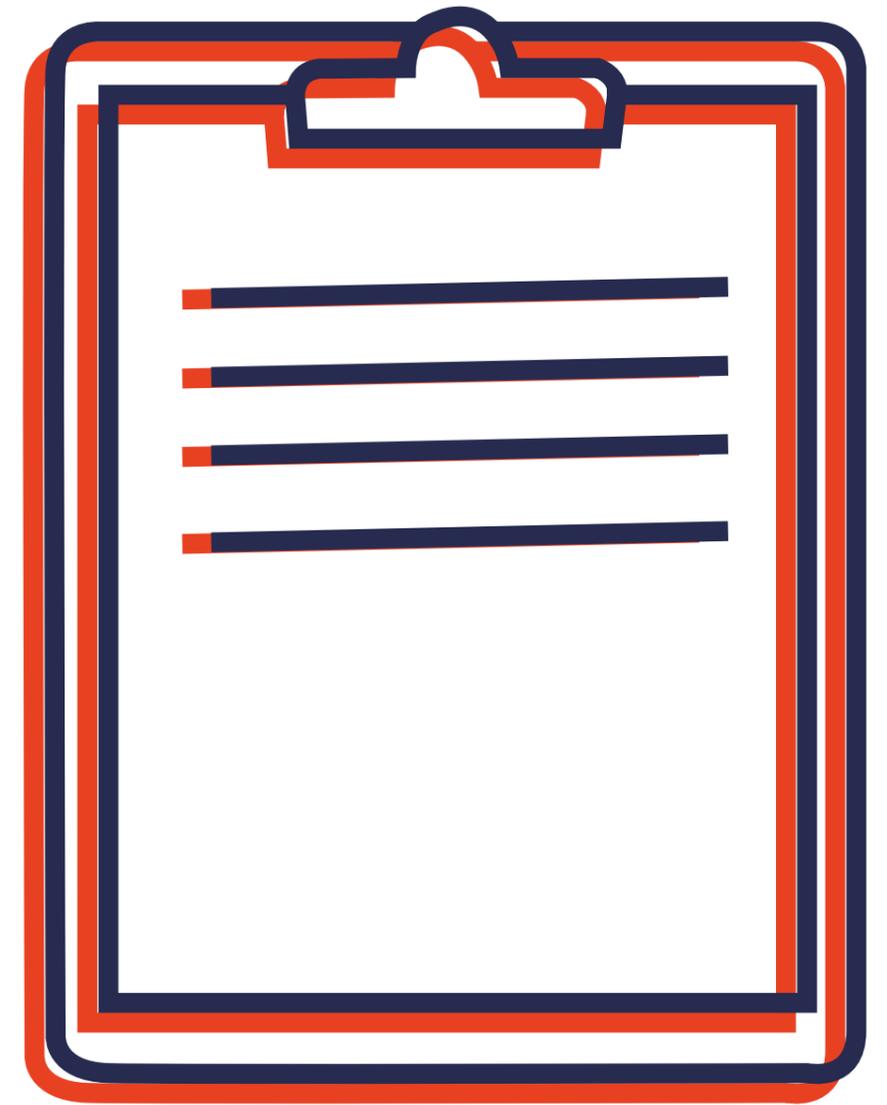
With the improvement of a clearer head concentration will be stronger, you will be more alert and aware of your surroundings. Passion and enthusiasm will be ramped up as Untapped genius(2018) states, along with increased clarity, better flow as you are able to focus, make connections and better understand the rhythm of our actions. Performance learning a particular skill would also be improved as senses are more in tune and we are able to concentrate and hone our skills. The second most popular response was people recording that they felt happier after exercising. This strongly supports my initial research and presumptions at the start of the project claiming the majority of those who exercise will see positive benefits. Almost 80% of which see no negative benefits from exercise proving it does more good than harm and if people suffer from mental health issues it likely isn't from exercise.



# DISCUSSION (FINDINGS)

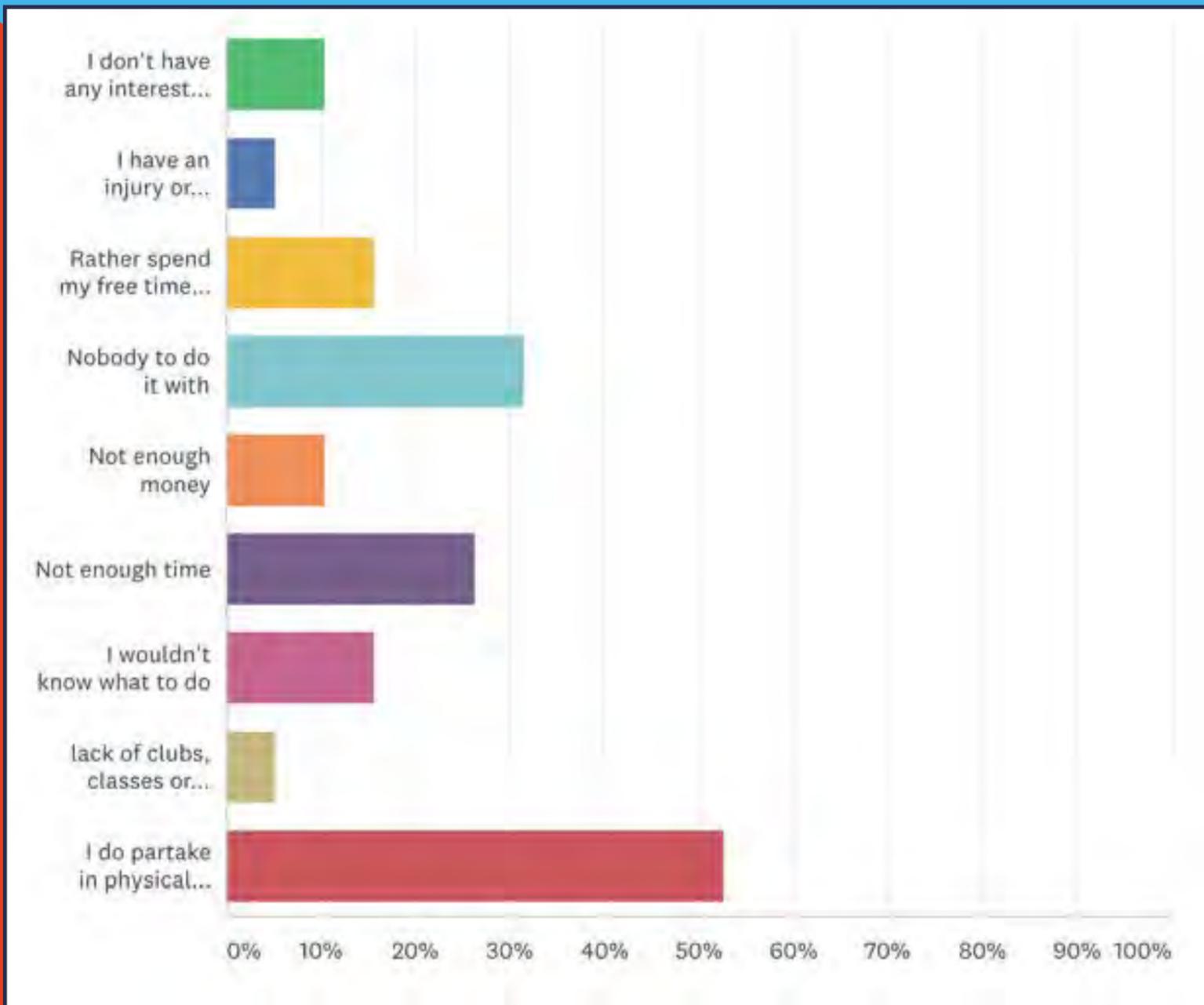
## SURVEY

Contrastingly those saying that they didn't participate in regular exercise recorded having nobody to go with and having no time as the top two reasons for not doing so. I found this an interesting discovery and made me think deeper into the possibilities of why people might feel this way. These respondents however had varied mental health ratings partially contradicting my research however this does not dismiss the claims that exercise can have positive benefits on your mental health rather that people might have a good mental health rating even though they might not exercise. Social anxiety can be a massive prevention for people to participate in exercise and many of these triggers can occur at the gym. This could be from concern with sweating, panic about whether you are using equipment properly or feeling daunted being around people in better shape than you. Not all environments are right for everybody, given their current circumstances and possible mental health struggles they might only be able to carry out certain exercises meaning certain environments or locations might be better suited to them. However I found from my survey that 91% of respondents regardless of their current mental health state or experience with exercise would consider exercise as a form of improving their mental health.



# DISCUSSION (FINDINGS)

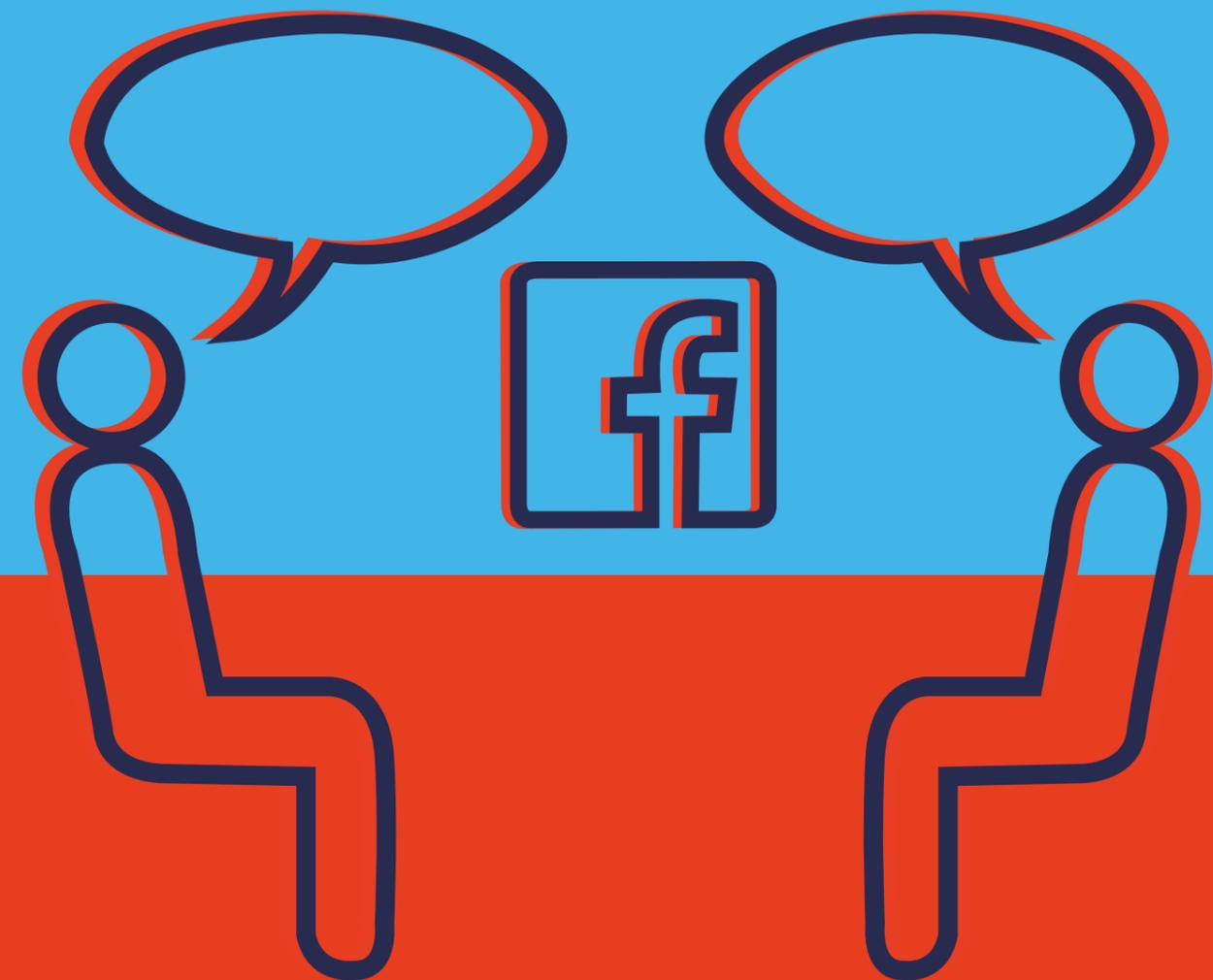
## SURVEY



This allows me to believe my initial statement is true. Whilst many felt they didn't have enough time for exercise I wanted to investigate this further. During busy lifestyles it is often difficult to find the time to fit in a workout. However preparation before a workout such as hydration, stretching and warming up is just as important as the workout itself. Though it's simpler than people think and even small changes can help those with a busy lifestyle to see some healthy and positive improvements quickly. Dossantos(2016) adds that simple changes like taking the stairs, cleaning around the house and getting off the train one stop earlier can encourage you to become more active and schedule exercise into a busy lifestyle. This gives me a stronger insight into my initial aim of wanting to learn how to encourage people to participate in fitness to help their mental health. Results from my survey clearly showed that people are open to using exercise but it's about finding the most appropriate method for them. I believe based on my research the eastern style of fitness could help those with busy lifestyles such as students to become more active, manage stress and generally improve their mental health. To find out whether people would be willing to take on these fitness styles I interviewed some students and young people to find more about their opinions.

**I decided to conduct a few interviews to follow up the survey to gain a deeper understanding into peoples possible considerations with eastern styles of fitness. I targeted younger people as they were the group who rated their mental health the lowest in my survey so I felt they were the most appropriate demographic to focus on additionally I would be able to target them quickly and efficiently. I took a semi structured approach to my interview as the aim with this method was more focused on gathering opinions rather than measurable data. I had 4 questions asking people if they regularly exercised, whether they would consider eastern styles, why and whether they would prefer eastern, western styles of both. These set of questions helped me to productively determine whether people would consider eastern styles of fitness. In order to conduct the interviews professionally and in a sensitive manner given the topics I would be asking questions about I decided to keep anonymity on them just by taking their first name and not taking any photographs of them.**

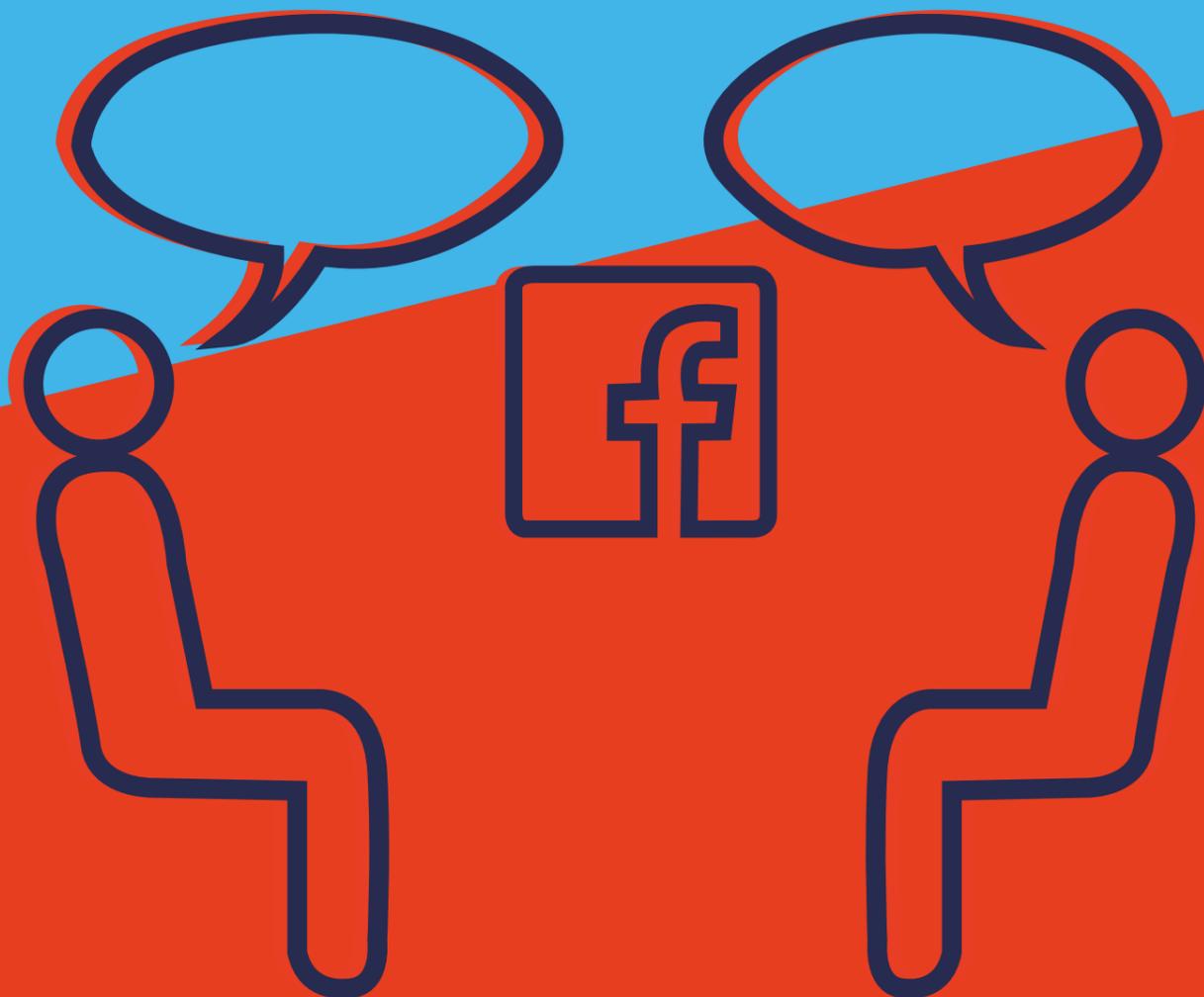
# **METHOD 2 :** **INTERVIEWS**



# DISCUSSION (FINDINGS)

## INTERVIEWS

Due to time constraints and limitations I conducted my interviews online over facebook. This meant I was able to conduct them quicker leaving me with more time to analyse the answers. I was able to gather answers from those who regularly exercise and those who dont giving me some interesting and valuable insights into multiple demographics. I particularly wanted to target these groups and therefore selected 7 different people I knew who had vastly different lifestyles and interviewed them from my preferred age group. I was able to collect my responses very quickly and only needed a few hours for the responses to come through so I could analyse them all together.

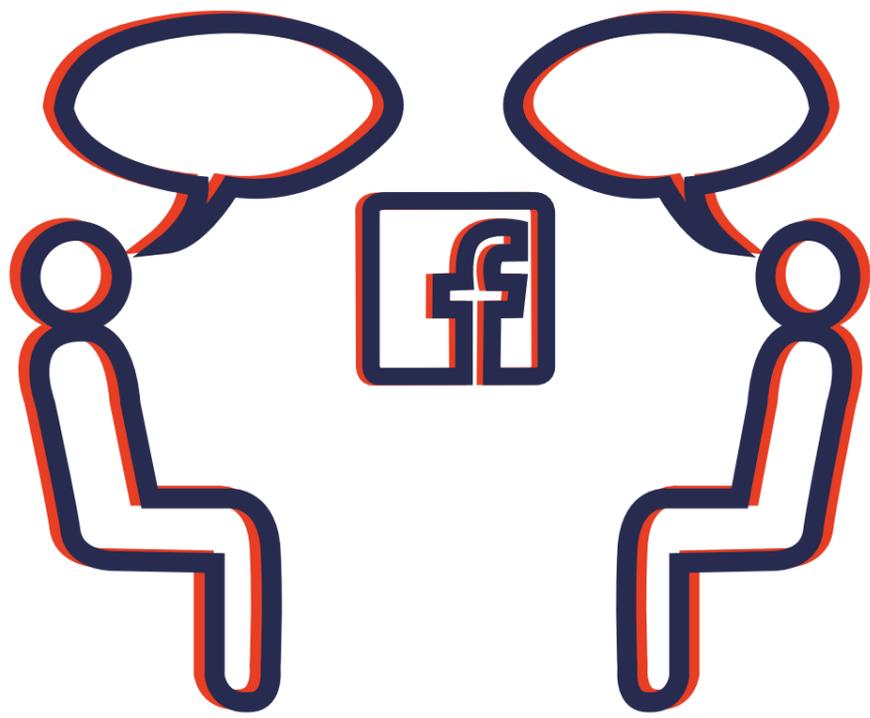


Guys can you all do me a massive favour and answers a few more questions for my project please! I'll need the answers by the end of the day please

Can just send a message with responses on here

1. Do you regularly exercise?
2. Would you consider eastern styles of exercise like tai chi which include meditation to help with your physical and mental health?
3. And why?
4. Would you prefer participating in western styles of fitness?(going to the gym) or eastern styles to improve your mental health? (Martial arts like Tai chi which are predominately meditation based) or both?

Thanks!



# DISCUSSION (FINDINGS)

## INTERVIEWS

1 yes 2 probably not 3 doesn't interest me and lack of knowledge 4 western as it's what I know



**KARL**

**EMILY**

1) twice a week  
2) not really  
3) I'm not good at meditation but I would be open to trying it if friends would come with me  
4) I prefer exercise rather than meditation but not necessarily in the gym, rather in dance/fitness classes



**REECE**

1 No  
2. no.  
3. One of the main reasons is that I work varied hours so I could not do it at a consistent basis due work. As I believe there is none within the local area which means that the closest would probably be 45 minutes to an hour (if lucky).  
4. I would more likely prefer the western style of fitness because I find they have easy access in the local area. Plus doing it with friends could add a bit of competition or even help with techniques. I also find that you could be more social with the western because you could talk will bring on the treadmill or doing reps on a machine



1. Do you regularly exercise?

Yes

2. Would you consider eastern styles of exercise like tai chi which include meditation to help with your physical and mental health?

100% if I was in the position to afford it !

3. And why?

Help with mental health - if those type of classes are included in a gym membership that was affordable that would be amazing but the help to mental health is the biggest benefit in my eyes

4. Would you prefer participating in western styles of fitness?(going to the gym) or eastern styles to improve your mental health? (Martial arts like Tai chi which are predominately meditation based) or both?

Both - personal taste as I would love to do tai chi as it's more a group and more peaceful form of exercise - but I also love lifting weights and going in a treadmill too so if a gym were to offer tai chi and other classes like that would be the best of both worlds

**MEGAN**



# DISCUSSION (FINDINGS)

## INTERVIEWS

### CATHERINE



1. No. 2. Possibly yes. 3. Mental health links a lot with physical health and although I personally may not do tai chi, but I do know that for people who use it, they see a difference in their temperament.  
4. Both

### JIM

1. Yes



2. Yh I would consider it and open to the idea

3. I know family members who do it and it seems it works for them. I have taken some yoga and meditation classes before and I liked it



4. Western style probably

1. No

2. No

3. Because they are intimidating and difficult to find in Cardiff. And expensive.

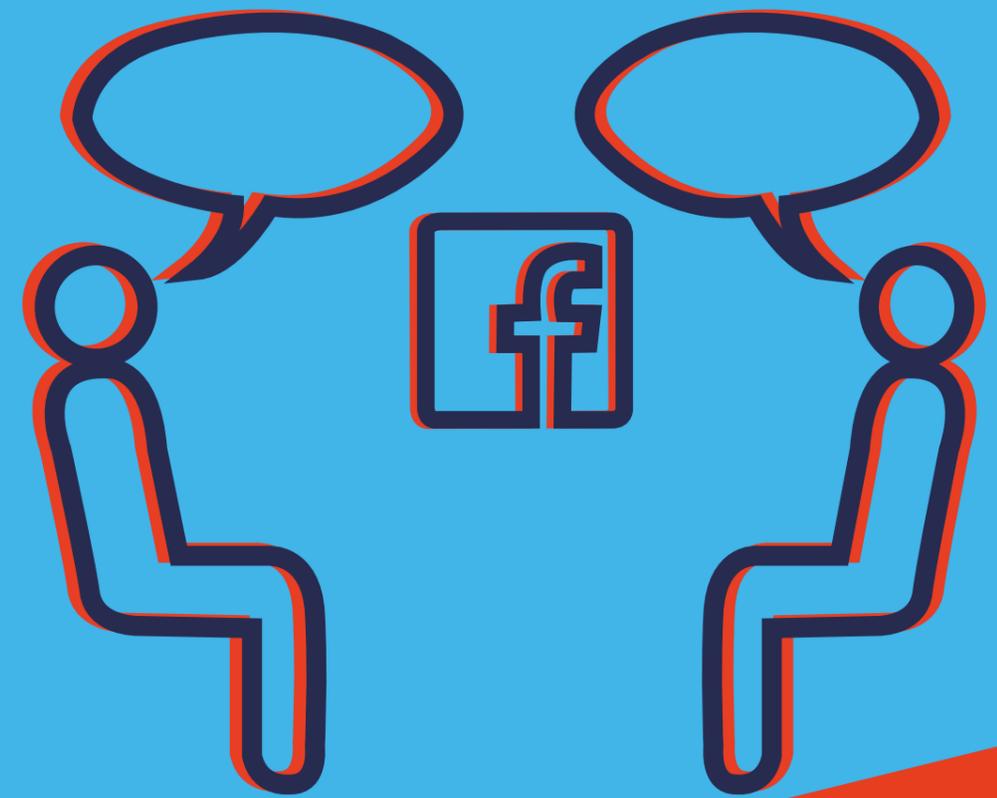
4. Both

### ESTHER

# DISCUSSION (FINDINGS)

## INTERVIEWS

The responses I gathered gave me a number of valuable insights and helped me to achieve my goal of gathering further knowledge into peoples considerations with exercise. Those who noted they didn't regularly exercise were more likely to consider eastern styles than those who already exercise. This was predominantly due to people being comfortable and familiar with the existing methods they were using. However I found that regardless of current fitness levels 3 out of 7 would be open to the idea, however 2 were unsure and 2 distinctively said no. Those who said they would do this is because they were aware of the positive benefits and some noted how they even knew some people who had benefited from it confirming in their minds that it is beneficial. This leads me to believe that the more people are aware of the benefits and the more they are exposed to confirmation of positive benefits the more likely they are to try it. Those who either said they wouldnt do it or weren't sure was because of a variety of reasons, all which can be solved. Both Reece and Esther explained how eastern styles of fitness aren't readily available in their area and such classes are therefore very hard to find. Reece added that even if he was able to find a suitable class it would be challenging to keep up a consistent routine due to the fact that he has varied hours at work. Emily noted how she doesn't feel she is good at meditation style exercises but would still be open to trying it due to the social interaction with friends should they consider going with her.



# DISCUSSION (FINDINGS)

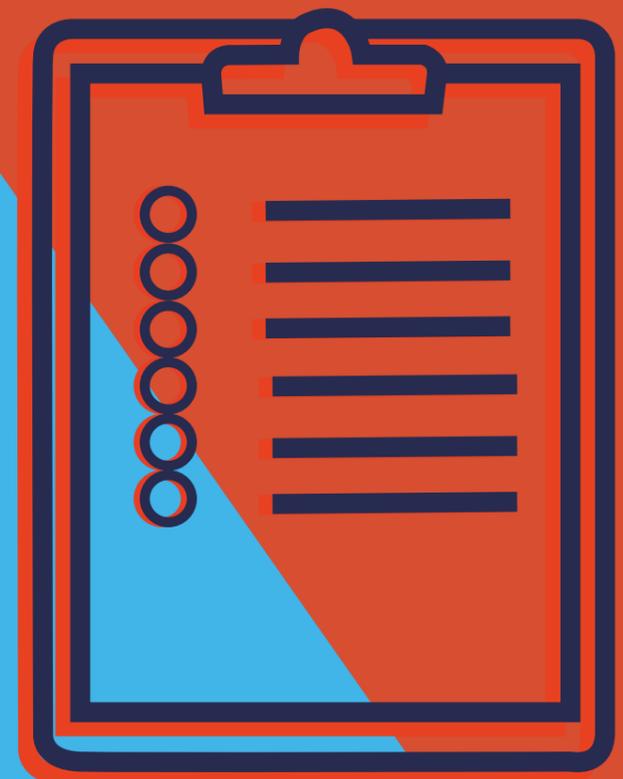
## INTERVIEWS

All 3 respondents however were aware of the positive benefits but were unlikely to choose this style due to practicality issues out of their control. I finally asked all respondents whether they would prefer western or eastern styles of exercise with the consideration that some people might like to both together in order to receive multiple benefits. 3 respondents said they would rather both together whilst the remaining 4 preferred to partake in western styles only. This is again due to practicality issues and difficulties with finding such methods of fitness which they could easily fit into their lifestyles. I felt that I gathered all the information I set out to gather and achieved my aim of comprehending whether people would consider eastern styles of fitness. In conclusion around half of respondents would whilst the other half wouldn't due to factors generally out of their control. It was clear from the respondents I interviewed that they were aware of the benefits eastern styles of fitness could have on their physical and mental health however wouldn't be able to participate due to busy lifestyles and lack of classes near them. This leads me to believe that should people like my interviewees with busy lifestyles be introduced to methods and styles of fitness with profound mental benefits fitting for their individual lifestyles they would be down to try it.

This finally leads me to the decision of revising my research question to **“How can design be used to encourage those with busy lifestyles to use eastern styles of fitness to improve their physical and mental wellbeing”**

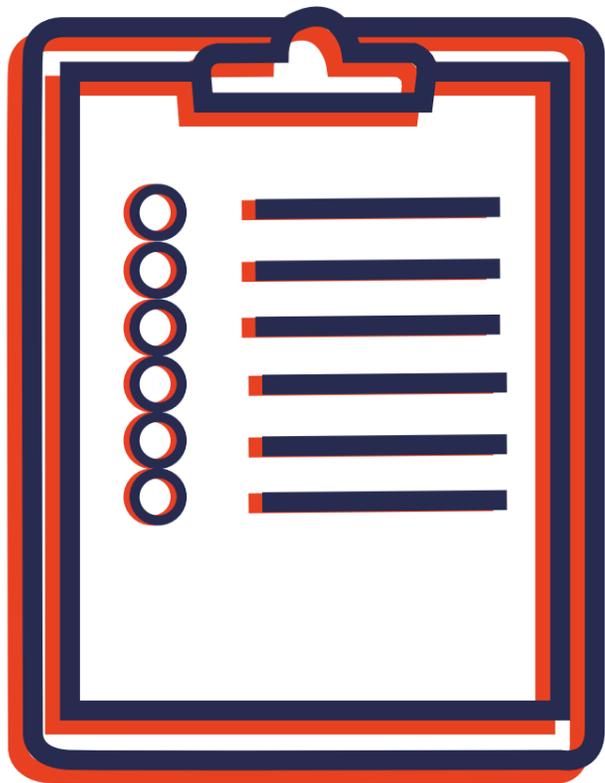
# PROJECT SUMMARY

**This research project has been extremely beneficial and eye opening into developing my knowledge on the link between physical exercise and mental health. I feel I effectively achieved all my aims and objectives set out at the start of the project. I've found a number of exciting and valuable insights into how participation in physical exercise can affect your mental health and what types of exercise people would consider. I discovered participation in regular exercise has the potential to improve your mental wellbeing by making your mind clearer, improving your concentration and helping you sleep better along with a number of other benefits. This was confirmed through survey results and interview answers where I gained a deeper insight into people's experiences. Throughout this project it occurred to me how strong the relationship between the mind and body is. Working out can have profound improvements on your physical health which subsequently improve your mental health and vice versa. Though having a strong mental health or strong fitness levels to start off with can better improve your mental health and make you feel more inclined to participate in exercise anyway. I also found about the impacts of mental disorders such as BDD and anorexia and how they can make the relationship with exercise an extremely dangerous one. These people have an extremely unhealthy relationship between their mental health and exercise. It shocked me how common these disorders are with 1 in 50 people reporting to have BDD.**



# PROJECT SUMMARY

My presumptions prior to research and my assumptions after completing research closely match with each other. I presumed my initial statement of exercise improving mental health was true and with my assumptions that I was able to make after research and survey results directly compared with that. I was also able to gain a deeper understanding into the variety of fitness options that are on offer and the differences between them. I found it fascinating how much the eastern way of working out not only improves your physical strength but also your mental wellbeing at the same time sometimes providing more benefits than western styles. They don't require a gym membership or access to a class and can be completed under time constraints. They incorporate meditation which makes them an extremely beneficial and popular method for mental resilience. Popular eastern fitness disciplines like pilates and chai chi dont put the joints under immense pressure however still offer a challenging workout which can be completed within just a few short minutes meaning you can see benefits with less chance of becoming injured. My revised research question is about how design can be used to encourage those with a busy lifestyle to use eastern styles of fitness to improve their mental health. I've decided to change my research question to this because I feel I have identified a key problem and target audience in which I can use design to solve the issue. It was identified with my research and confirmed with my surveys and interviews that people with busy lifestyles don't see exercise as a priority to them. These people were more likely to rate their mental health lower too. Exercise as a whole has huge potential to improve people's mental health and this has been scientifically proven. Eastern styles of fitness in particular can be completed at home, within a few minutes and have a lower injury rate meaning it is a fool proof method for people with busy lifestyles to keep active. I want to use my knowledge of these fitness disciplines along with my design thinking skills to promote these methods to people with busy lifestyles to help them improve their physical and mental health.



# REFERENCE

## LIST

My Achilles, L. (n.d.). 2 friends practising meditation. [image] Available at: [https://www.google.com/search?q=eastern+vs+western+fitness&sxsrf=ACYBGNSoreG3H\\_FxSb2rKsJ3DVfEnic3kw:1581081933169&source=lnms&tbn=isch&sa=X&ved=2ahUKEwiuw\\_KXxb\\_nAhVfShUIHXDkCdoQ\\_AUoAXoECA0QAw&biw=1440&bih=821#imgrc=mkUx4gF5DcKmHM](https://www.google.com/search?q=eastern+vs+western+fitness&sxsrf=ACYBGNSoreG3H_FxSb2rKsJ3DVfEnic3kw:1581081933169&source=lnms&tbn=isch&sa=X&ved=2ahUKEwiuw_KXxb_nAhVfShUIHXDkCdoQ_AUoAXoECA0QAw&biw=1440&bih=821#imgrc=mkUx4gF5DcKmHM) [Accessed 19 Feb. 2020].

Active Norfolk. (2016). The mental benefits of sport. [online] Available at: <https://www.activenorfolk.org/news/2016/05/the-mental-benefits-of-sports> [Accessed 19 Feb. 2020].

Adaa.org. (2018). Body Dysmorphic Disorder (BDD) | Anxiety and Depression Association of America, ADAA. [online] Available at: <https://adaa.org/understanding-anxiety/related-illnesses/other-related-conditions/body-dysmorphic-disorder-bdd> [Accessed 19 Feb. 2020].

Bodybuilding.com (n.d.). Man squatting with barbell. [image] Available at: [https://www.google.com/search?q=weightlifting+in+gym&tbn=isch&ved=2ahUKEwj2yvVBxr\\_nAhVPiRoKHU7nDt4Q2-cCegQIABAA&oq=weightlifting+in+gym&gs\\_l=img.3..0.2257.3060..3467...0.0..1.141.611.5j2.....0....1..gws-wiz-img.....0i67j0i24.YdFAL9kDgiA&ei=sWY9XrauMs-Sas70u\\_AN&bih=821&biw=1440#imgrc=SVBNYLAoDzq6IM](https://www.google.com/search?q=weightlifting+in+gym&tbn=isch&ved=2ahUKEwj2yvVBxr_nAhVPiRoKHU7nDt4Q2-cCegQIABAA&oq=weightlifting+in+gym&gs_l=img.3..0.2257.3060..3467...0.0..1.141.611.5j2.....0....1..gws-wiz-img.....0i67j0i24.YdFAL9kDgiA&ei=sWY9XrauMs-Sas70u_AN&bih=821&biw=1440#imgrc=SVBNYLAoDzq6IM) [Accessed 19 Feb. 2020].

Brauser, D. (2017). New Treatments for Negative Schizophrenia Symptoms Stir Debate. [online] Medscape. Available at: <https://www.medscape.com/viewarticle/884847> [Accessed 19 Feb. 2020].

Diet Show (2020). Women lunging in a park. [image] Available at: [https://www.google.com/search?q=exercise-outside-woman-stock-today-150427-tease\\_72497df9c4ab67a1d1a016b22206a5af.social+share+1200x630+center.jpg&sxsrf=ACYBGNRzH24R-cUMfleihv\\_koFfI0qHw0WA:1582118030778&source=lnms&tbn=isch&sa=X&ved=2ahUKEwiEj9752N3nAhWDIFwKHdyzB10Q\\_AUoAXoE-CAcQAw&biw=1440&bih=821#imgrc=VfDiAplWddVacM](https://www.google.com/search?q=exercise-outside-woman-stock-today-150427-tease_72497df9c4ab67a1d1a016b22206a5af.social+share+1200x630+center.jpg&sxsrf=ACYBGNRzH24R-cUMfleihv_koFfI0qHw0WA:1582118030778&source=lnms&tbn=isch&sa=X&ved=2ahUKEwiEj9752N3nAhWDIFwKHdyzB10Q_AUoAXoE-CAcQAw&biw=1440&bih=821#imgrc=VfDiAplWddVacM) [Accessed 19 Feb. 2020].

Dossantos, N. (2016). 8 Ways to Exercise on a Busy Schedule. [online] The Active Times. Available at: <https://www.theactive-times.com/fitness/your-first-time/8-ways-exercise-busy-schedule> [Accessed 19 Feb. 2020].

# REFERENCE

## LIST

Getty Images (n.d.). Running for mental health - Newcastle Frontrunners. [image] Available at: [https://www.google.com/search?q=mental+health&sxsrf=ACYBGNTQSKtN1BzQqJ0nxElUUhssIBYTxA:1580915383572&source=lnms&tbn=isch&sa=X&ved=2a-hUKEwj8h07e2LrnAhWJUBUIHepzBxYQ\\_AUoAnoECBIQBA&biw=1440&bih=821#imgrc=qjGKweC5v49-xM](https://www.google.com/search?q=mental+health&sxsrf=ACYBGNTQSKtN1BzQqJ0nxElUUhssIBYTxA:1580915383572&source=lnms&tbn=isch&sa=X&ved=2a-hUKEwj8h07e2LrnAhWJUBUIHepzBxYQ_AUoAnoECBIQBA&biw=1440&bih=821#imgrc=qjGKweC5v49-xM) [Accessed 19 Feb. 2020].

Gregory, A. (2019). More than 120,000 NHS patients kept on 'hidden waiting lists' for mental health appointments. [online] The Independent. Available at: <https://www.independent.co.uk/news/health/nhs-mental-health-treatment-therapy-waiting-list-appointment-a9079541.html> [Accessed 19 Feb. 2020].

Healthdirect.gov.au. (2019). Exercise and mental health. [online] Available at: <https://www.healthdirect.gov.au/exercise-and-mental-health> [Accessed 19 Feb. 2020].

Kane, S. (2018). 10 Benefits of Tai Chi for Better Overall Health, Well-Being and Living Longer. [online] Psych Central. Available at: <https://psychcentral.com/lib/10-benefits-of-tai-chi-for-better-overall-health-well-being-and-living-longer/> [Accessed 21 Feb. 2020].

Lange, D. (2019). Topic: Fitness industry in the United Kingdom (UK). [online] www.statista.com. Available at: <https://www.statista.com/topics/3411/fitness-industry-in-the-united-kingdom-uk/> [Accessed 19 Feb. 2020].

Laskey, J. (2020). 4 Reasons New Year's Resolution Fad Diets Don't Work – and What to Do Instead. [online] EverydayHealth.com. Available at: <https://www.everydayhealth.com/diet-nutrition/reasons-new-years-resolution-fad-diets-dont-work-what-instead/> [Accessed 19 Feb. 2020].

Legg, T. (2019). Emotional Health: Why It's as Important as Physical Health. [online] Healthline. Available at: <https://www.healthline.com/health/emotional-health#improvement> [Accessed 19 Feb. 2020].

Man holding fingers to his brain. (n.d.). [image] Available at: <https://content.thriveglobal.com/wp-content/uploads/2019/05/C9D784E0-799F-4DE1-86F2-A62943907C21.jpeg?w=1550> [Accessed 19 Feb. 2020].

# REFERENCE

## LIST

Mental Health Association in Forsyth County. (n.d.). What is Mental Illness? - Mental Health Association in Forsyth County. [online] Available at: <https://www.triadmentalhealth.org/what-is-mental-illness/> [Accessed 19 Feb. 2020].

MHFA Portal. (2019). Mental health statistics. [online] Available at: <https://mhfaengland.org/mhfa-centre/research-and-evaluation/mental-health-statistics/> [Accessed 19 Feb. 2020].

Mind.org.uk. (2017). How common are mental health problems?. [online] Available at: <https://www.mind.org.uk/information-support/types-of-mental-health-problems/statistics-and-facts-about-mental-health/how-common-are-mental-health-problems/> [Accessed 19 Feb. 2020].

Pinto, S. (2020). Body Dysmorphia from a Gym Addiction | Timberline Knolls. [online] Timberline Knolls. Available at: <https://www.timberlineknolls.com/eating-disorder/body-dysmorphia/how-it-impacts-women/> [Accessed 19 Feb. 2020].

Popularity, Y. (2018). Yoga Statistics: Staggering Growth Shows Ever-increasing Popularity. [online] The Good Body. Available at: <https://www.thegoodbody.com/yoga-statistics/> [Accessed 21 Feb. 2020].

ptdirect. (2020). Attendance, Adherence, Drop out and Retention. [online] Available at: <https://www.ptdirect.com/training-design/exercise-behaviour-and-adherence/attendance-adherence-drop-out-and-retention-patterns-of-gym-members> [Accessed 21 Feb. 2020].

Roberts, A. (2019). Self-conscious at the gym? Here are three ways around that | JOE.co.uk. [online] JOE.co.uk. Available at: <https://www.joe.co.uk/fitness-health/self-conscious-gym-tips-214868> [Accessed 20 Feb. 2020].

Screenshot 2020-02-07 at 13.51.21 (Survey title)

Screenshot 2020-02-14 at 16.39.05 (Male vs Female graph)

Screenshot 2020-02-14 at 16.39.24 (Ages)

Screenshot 2020-02-14 at 16.39.51 (participation in regular fitness)

Screenshot 2020-02-14 at 16.40.00 (Mental health rating)

# REFERENCE LIST

Screenshot 2020-02-14 at 16.40.12 (Positive benefits of exercise)  
Screenshot 2020-02-14 at 16.41.15 (Reasons against exercising)  
Screenshot 2020-02-14 at 16.41.23 (Do you see any negative effects when exercising)  
Screenshot 2020-02-14 at 16.41.33 (Negative effects of exercise)  
Screenshot 2020-02-14 at 16.41.41 (Would you consider eastern styles)  
Screenshot 2020-02-19 at 10.09.00 (Interview questions)  
Screenshot 2020-02-19 at 10.11.05 (Karls answers)  
Screenshot 2020-02-19 at 10.15.21 (Megan's answers)  
Screenshot 2020-02-19 at 10.16.22 (Esther's answers)  
Screenshot 2020-02-19 at 10.17.22 (Catherines answers)  
Screenshot 2020-02-19 at 10.18.20 (Jims answers)  
Screenshot 2020-02-19 at 11.15.55 (Reeces answers)  
Screenshot 2020-02-19 at 11.16.46 (Emily's answers)

SurveyMonkey (n.d.). Surveymonkey logo. [image] Available at: [https://www.google.com/search?q=survey+monkey&sxsrf=ACYBGN-QkWS3gfjEUCFR0ZdjEG1BGE3zmVA:1581083273147&source=Inms&tbm=isch&sa=X&ved=2ahUKEwig-t-yWyr\\_nAhUEilwKHbI0C-OQ\\_AUoAXoE-CAOQAaw&biw=1440&bih=821#imgrc=jUdgKOC8Th1CzM](https://www.google.com/search?q=survey+monkey&sxsrf=ACYBGN-QkWS3gfjEUCFR0ZdjEG1BGE3zmVA:1581083273147&source=Inms&tbm=isch&sa=X&ved=2ahUKEwig-t-yWyr_nAhUEilwKHbI0C-OQ_AUoAXoE-CAOQAaw&biw=1440&bih=821#imgrc=jUdgKOC8Th1CzM) [Accessed 19 Feb. 2020].

The Red Delta Project. (2011). Eastern vs. Western Fitness Philosophies - The Red Delta Project. [online] Available at: <https://red-deltaproject.com/eastern-vs-western-fitness-philosophies/> [Accessed 19 Feb. 2020].

Untappedgenius.com. (2018). 10 benefits of a clear mind. [online] Available at: <https://untappedgenius.com/10-benefits-of-a-clear-mind/> [Accessed 19 Feb. 2020].

Wain, R. (n.d.). Body Dysmorphic Disorder. [image] Available at: [https://www.google.com/search?q=body+dysmorphia&sxsrf=ACY-BGNSSiCFaM1JqDXUWb\\_4Bje1JKDArQ:1581082454697&source=Inms&tbm=isch&sa=X&ved=2ahUKEwj4m8qQx7\\_nAhUDnVwKHSxODWUQ\\_AUoAXoECA4QAaw&biw=1440&bih=821#imgrc=9VMN3y2T2CAMPm](https://www.google.com/search?q=body+dysmorphia&sxsrf=ACY-BGNSSiCFaM1JqDXUWb_4Bje1JKDArQ:1581082454697&source=Inms&tbm=isch&sa=X&ved=2ahUKEwj4m8qQx7_nAhUDnVwKHSxODWUQ_AUoAXoECA4QAaw&biw=1440&bih=821#imgrc=9VMN3y2T2CAMPm) [Accessed 19 Feb. 2020].

Who.int. (2020). WHO | Physical Inactivity: A Global Public Health Problem. [online] Available at: [https://www.who.int/dietphysicalactivity/factsheet\\_inactivity/en/](https://www.who.int/dietphysicalactivity/factsheet_inactivity/en/) [Accessed 19 Feb. 2020].

# BIBLIOGRAPHY

- A Phillips, MD, K. (2020). Who Gets BDD? - BDD. [online] BDD. Available at: <https://bdd.iocdf.org/about-bdd/who-gets/> [Accessed 19 Feb. 2020].
- Achilles, L. (n.d.). 2 friends practising meditation. [image] Available at: [https://www.google.com/search?q=eastern+vs+western+fitness&sxsrf=ACYBGNSoreG3H\\_FxSb2rKsJ3DVfEnic3kw:1581081933169&source=lnms&tbm=isch&sa=X&ved=2ahUKEwiuw\\_KXxb\\_nAhVfShUIHXDKCdoQ\\_AUoAXoECAOQA-w&biw=1440&bih=821#imgrc=mkUx4gF5DcKmHM](https://www.google.com/search?q=eastern+vs+western+fitness&sxsrf=ACYBGNSoreG3H_FxSb2rKsJ3DVfEnic3kw:1581081933169&source=lnms&tbm=isch&sa=X&ved=2ahUKEwiuw_KXxb_nAhVfShUIHXDKCdoQ_AUoAXoECAOQA-w&biw=1440&bih=821#imgrc=mkUx4gF5DcKmHM) [Accessed 19 Feb. 2020].
- Active Norfolk. (2016). The mental benefits of sport. [online] Available at: <https://www.activenorfolk.org/news/2016/05/the-mental-benefits-of-sports> [Accessed 19 Feb. 2020].
- Adaa.org. (2018). Body Dysmorphic Disorder (BDD) | Anxiety and Depression Association of America, ADAA. [online] Available at: <https://adaa.org/understanding-anxiety/related-illnesses/other-related-conditions/body-dysmorphic-disorder-bdd> [Accessed 19 Feb. 2020].
- Allan, P. (2014). The Most Common Exercise Injuries (and How You Can Avoid Them). [online] Lifehacker. Available at: <https://lifehacker.com/the-most-common-exercise-injuries-and-how-you-can-avoi-1659615551> [Accessed 19 Feb. 2020].
- Anon, (2017). [online] Available at: <https://www.quora.com/How-many-football-clubs-are-there-in-England> [Accessed 19 Feb. 2020].
- ASAE. (2019). Qualitative Interview Pros and Cons. [online] Available at: [https://www.asaecenter.org/resources/articles/an\\_plus/2016/january/qualitative-interview-pros-and-cons](https://www.asaecenter.org/resources/articles/an_plus/2016/january/qualitative-interview-pros-and-cons) [Accessed 19 Feb. 2020].
- BBC News. (2016). Sports activity drops since London 2012. [online] Available at: <https://www.bbc.co.uk/news/uk-england-36540017> [Accessed 19 Feb. 2020].
- BBC Sport. (2013). Wimbledon 2013: The state of grassroots & elite tennis in Britain. [online] Available at: <https://www.bbc.co.uk/sport/tennis/22912754> [Accessed 19 Feb. 2020].
- Betterhealth.vic.gov.au. (2020). Cricket - health benefits. [online] Available at: <https://www.betterhealth.vic.gov.au/health/HealthyLiving/cricket-health-benefits> [Accessed 19 Feb. 2020].

# BIBLIOGRAPHY

Betterhealth.vic.gov.au. (2020). Swimming - health benefits. [online] Available at: <https://www.betterhealth.vic.gov.au/health/healthyliving/swimming-health-benefits> [Accessed 19 Feb. 2020].

Betterhealth.vic.gov.au. (2020). Tennis - health benefits. [online] Available at: <https://www.betterhealth.vic.gov.au/health/healthyliving/tennis-health-benefits> [Accessed 19 Feb. 2020].

Bodybuilding.com (n.d.). Man squatting with barbell. [image] Available at: [https://www.google.com/search?q=weightlifting+in+gym&tbm=isch&ved=2ahUKEwj2yvBxr\\_nAhVPiRoKHU7nDt4Q2-cCegQIABAA&oq=weightlifting+in+gym&gs\\_l=img.3..0.2257.3060..3467...0.0..1.141.611.5j2.....0....1..gws-wiz-img.....0i67j0i24.YdFAL9kDgiA&ei=sWY9XrauMs-Sas70u\\_AN&bih=821&biw=1440#imgsrc=SVBNYLAoDzq6IM](https://www.google.com/search?q=weightlifting+in+gym&tbm=isch&ved=2ahUKEwj2yvBxr_nAhVPiRoKHU7nDt4Q2-cCegQIABAA&oq=weightlifting+in+gym&gs_l=img.3..0.2257.3060..3467...0.0..1.141.611.5j2.....0....1..gws-wiz-img.....0i67j0i24.YdFAL9kDgiA&ei=sWY9XrauMs-Sas70u_AN&bih=821&biw=1440#imgsrc=SVBNYLAoDzq6IM) [Accessed 19 Feb. 2020].

Brauser, D. (2017). New Treatments for Negative Schizophrenia Symptoms Stir Debate. [online] Medscape. Available at: <https://www.medscape.com/viewarticle/884847> [Accessed 19 Feb. 2020].

British Rowing. (2020). About us - British Rowing. [online] Available at: <https://www.britishrowing.org/about-us/> [Accessed 19 Feb. 2020].

Cuncic, A. (2020). How to Cope With Social Anxiety at the Gym. [online] Verywell Mind. Available at: <https://www.verywellmind.com/cope-with-social-anxiety-at-the-gym-4125214> [Accessed 19 Feb. 2020].

Didcot Netball Club. (2018). Didcot Netball Club. [online] Available at: <http://didcotnetballclub.co.uk/netball-and-its-benefits> [Accessed 19 Feb. 2020].

Diet Show (2020). Women lunging in a park. [image] Available at: [https://www.google.com/search?q=exercise-outside-woman-stock-to-day-150427-tease\\_72497df9c4ab67a1d1a016b22206a5af.social+share+1200x630+center.jpg&sxsrf=ACYBGNRzH24RcUMfleIHv\\_koFfI0qH-w0wA:1582118030778&source=lnms&tbm=isch&sa=X&ved=2ahUKEwiEj9752N3nAhWDIFwKHdyzB10Q\\_AUoAXoECACQAw&biw=1440&bih=821#imgsrc=ViDi-AplWddVacM](https://www.google.com/search?q=exercise-outside-woman-stock-to-day-150427-tease_72497df9c4ab67a1d1a016b22206a5af.social+share+1200x630+center.jpg&sxsrf=ACYBGNRzH24RcUMfleIHv_koFfI0qH-w0wA:1582118030778&source=lnms&tbm=isch&sa=X&ved=2ahUKEwiEj9752N3nAhWDIFwKHdyzB10Q_AUoAXoECACQAw&biw=1440&bih=821#imgsrc=ViDi-AplWddVacM) [Accessed 19 Feb. 2020].

Dossantos, N. (2016). 8 Ways to Exercise on a Busy Schedule. [online] The Active Times. Available at: <https://www.theactivetimes.com/fitness/your-first-time/8-ways-exercise-busy-schedule> [Accessed 19 Feb. 2020].

# BIBLIOGRAPHY

Edmunds, D., Biggs, H. and Goldie, I. (2013). Get Physical - The impact of physical activity on wellbeing. [ebook] Mental health foundation. Available at: <https://www.mentalhealth.org.uk/sites/default/files/lets-get-physical-report.pdf> [Accessed 19 Feb. 2020].

En.wikipedia.org. (2019). Swim England. [online] Available at: [https://en.wikipedia.org/wiki/Swim\\_England](https://en.wikipedia.org/wiki/Swim_England) [Accessed 19 Feb. 2020].

Fsem.ac.uk. (n.d). The Role of Physical Activity and Sport in Mental Health. [online] Available at: [https://www.fsem.ac.uk/position\\_statement/the-role-of-physical-activity-and-sport-in-mental-health/](https://www.fsem.ac.uk/position_statement/the-role-of-physical-activity-and-sport-in-mental-health/) [Accessed 19 Feb. 2020].

Getty Images (n.d.). Running for mental health - Newcastle Frontrunners. [image] Available at: [https://www.google.com/search?q=mental+health&sxsrf=ACYBGNTQSKtN1BzQqJOnxEInUhssIBYTxA:1580915383572&source=lnms&tbn=isch&sa=X&ved=2ahUKEwj8h07e2LrnAhWJUBUIHepzBx-YQ\\_AUoAnoECBIQBA&biw=1440&bih=821#imgrc=qjGKweC5v49-xM](https://www.google.com/search?q=mental+health&sxsrf=ACYBGNTQSKtN1BzQqJOnxEInUhssIBYTxA:1580915383572&source=lnms&tbn=isch&sa=X&ved=2ahUKEwj8h07e2LrnAhWJUBUIHepzBx-YQ_AUoAnoECBIQBA&biw=1440&bih=821#imgrc=qjGKweC5v49-xM) [Accessed 19 Feb. 2020].

Google.com. (n.d). journey mapping cons - Google Search. [online] Available at: [https://www.google.com/search?q=journey+mapping+cons&sxsrf=ACYBGNSX3xIph-dkuPBuAtt8tQtEGgiyDw:1580146526517&source=lnms&sa=X&ved=0ahUKEwjzp\\_DqKTnAhVDtnEKHdtWD5AQ\\_AUIDSgA&biw=1440&bih=821&dpr=2](https://www.google.com/search?q=journey+mapping+cons&sxsrf=ACYBGNSX3xIph-dkuPBuAtt8tQtEGgiyDw:1580146526517&source=lnms&sa=X&ved=0ahUKEwjzp_DqKTnAhVDtnEKHdtWD5AQ_AUIDSgA&biw=1440&bih=821&dpr=2) [Accessed 19 Feb. 2020].

Google.com. (n.d). semiotics pros and cons - Google Search. [online] Available at: [https://www.google.com/search?sxsrf=ACYBGNT4EByH7hi-jy-ONdQ\\_skdybwF4KQA%3A1580144698653&ei=0hgvXsfMJ8u08gLVsbzoBA&q=semiotics+pros+and+cons&oq=semiotics+pro&gs\\_l=psy-ab.3.0.0i7j0i22i30i3.5867.8069..9845...1.2..0.75.346.5.....0....1..gws-wiz.....0i71j0i131i20i263j0i67.f8UQG0blGug](https://www.google.com/search?sxsrf=ACYBGNT4EByH7hi-jy-ONdQ_skdybwF4KQA%3A1580144698653&ei=0hgvXsfMJ8u08gLVsbzoBA&q=semiotics+pros+and+cons&oq=semiotics+pro&gs_l=psy-ab.3.0.0i7j0i22i30i3.5867.8069..9845...1.2..0.75.346.5.....0....1..gws-wiz.....0i71j0i131i20i263j0i67.f8UQG0blGug) [Accessed 19 Feb. 2020].

Google.com. (n.d). surveys pros and cons - Google Search. [online] Available at: <https://www.google.com/search?q=surveys+pros+and+cons&oq=surveys+&aqs=chrome.2.69i57j0i17.3936j0j7&sourceid=chrome&ie=UTF-8> [Accessed 19 Feb. 2020].

Gregory, A. (2019). More than 120,000 NHS patients kept on 'hidden waiting lists' for mental health appointments. [online] The Independent. Available at: <https://www.independent.co.uk/news/health/nhs-mental-health-treatment-therapy-waiting-list-appointment-a9079541.html> [Accessed 19 Feb. 2020].

Haddad, P. and Haddad, I. (2015). Mental Health Stigma | Articles. [online] Bap.org.uk. Available at: <https://www.bap.org.uk/articles/mental-health-stigma/> [Accessed 19 Feb. 2020].

# BIBLIOGRAPHY

Harold Compton, M. and Atkinson, A. (2020). 7 Good Reasons Teenagers Should Play Sports. [online] Marine Military Academy Blog. Available at: <https://www.mma-tx.org/blog/13308/7-good-reasons-teenagers-should-play-sports/> [Accessed 19 Feb. 2020].

HCPNow.com. (2018). Difference In Exercise Practices: Eastern and Western Cultures - HCPNow.com. [online] Available at: <https://hcpnow.com/exercise-east-to-west-how-much-difference-could-there-be/> [Accessed 19 Feb. 2020].

health, M. (n.d). Mental health | Sport England. [online] Sportengland.org. Available at: <https://www.sportengland.org/our-work/mental-health/why-we-invest-in-mental-health/> [Accessed 19 Feb. 2020].

Healthdirect.gov.au. (2019). Exercise and mental health. [online] Available at: <https://www.healthdirect.gov.au/exercise-and-mental-health> [Accessed 19 Feb. 2020].

Healthline. (2016). The Top Mental Benefits of Sports. [online] Available at: <https://www.healthline.com/health/mental-benefits-sports> [Accessed 19 Feb. 2020].

Horton, L. (2017). How does mental illness impact our physical body?. [online] MQ: Transforming Mental Health. Available at: <https://www.mq-mentalhealth.org/posts/4-ways-our-physical-health-could-be-impacted-by-our-mental-health> [Accessed 19 Feb. 2020].

Insights In Marketing. (2020). Ethnographic Research: The Pros, Cons & Modern Solutions. [online] Available at: <https://www.insightsinmarketing.com/resources/blog/ethnographies-the-pros-cons-and-modern-solutions> [Accessed 19 Feb. 2020].

Kane, S. (2018). 10 Benefits of Tai Chi for Better Overall Health, Well-Being and Living Longer. [online] Psych Central. Available at: <https://psych-central.com/lib/10-benefits-of-tai-chi-for-better-overall-health-well-being-and-living-longer/> [Accessed 21 Feb. 2020].

Khan, J. (2019). Bodybuilders go to extremes to compete, and it can take a serious toll on their health. [online] ABC News. Available at: <https://www.abc.net.au/news/health/2019-05-01/bodybuilding-health-effects-dehydration-starvation-hormones/10971608> [Accessed 19 Feb. 2020].

# BIBLIOGRAPHY

Lange, D. (2019). Topic: Fitness industry in the United Kingdom (UK). [online] [www.statista.com](https://www.statista.com). Available at: <https://www.statista.com/topics/3411/fitness-industry-in-the-united-kingdom-uk/> [Accessed 19 Feb. 2020].

Laskey, J. (2020). 4 Reasons New Year's Resolution Fad Diets Don't Work – and What to Do Instead. [online] [EverydayHealth.com](https://www.everydayhealth.com). Available at: <https://www.everydayhealth.com/diet-nutrition/reasons-new-years-resolution-fad-diets-dont-work-what-instead/> [Accessed 19 Feb. 2020].

Legg, T. (2019). Emotional Health: Why It's as Important as Physical Health. [online] [Healthline](https://www.healthline.com). Available at: <https://www.healthline.com/health/emotional-health#improvement> [Accessed 19 Feb. 2020].

[Londonandsoutheastnetball.co.uk](https://www.londonandsoutheastnetball.co.uk). (2020). Clubs - London and South East Netball. [online] Available at: <https://www.londonandsoutheastnetball.co.uk/play-netball/clubs> [Accessed 19 Feb. 2020].

Man holding fingers to his brain. (n.d.). [image] Available at: <https://content.thriveglobal.com/wp-content/uploads/2019/05/C9D784E0-799F-4DE1-86F2-A62943907C21.jpeg?w=1550> [Accessed 19 Feb. 2020].

Mental Health America. (2020). Mental Health Treatments. [online] Available at: <https://www.mhanational.org/mental-health-treatments> [Accessed 19 Feb. 2020].

Mental Health Association in Forsyth County. (n.d.). What is Mental Illness? - Mental Health Association in Forsyth County. [online] Available at: <https://www.triadmentalhealth.org/what-is-mental-illness/> [Accessed 19 Feb. 2020].

Mental Health Foundation. (2016). Physical health and mental health. [online] Available at: <https://www.mentalhealth.org.uk/a-to-z/p/physical-health-and-mental-health> [Accessed 19 Feb. 2020].

MHFA Portal. (2019). Mental health statistics. [online] Available at: <https://mhfaengland.org/mhfa-centre/research-and-evaluation/mental-health-statistics/> [Accessed 19 Feb. 2020].

Mind.org.uk. (2017). How common are mental health problems?. [online] Available at: <https://www.mind.org.uk/information-support/types-of-mental-health-problems/statistics-and-facts-about-mental-health/how-common-are-mental-health-problems/> [Accessed 19 Feb. 2020].

# BIBLIOGRAPHY

**Mind.org.uk. (2020). Types of mental health problems. [online] Available at: <https://www.mind.org.uk/information-support/types-of-mental-health-problems/> [Accessed 19 Feb. 2020].**

**Morris, N. (2019). We need to talk about the psychological effects of sports injuries | Metro News. [online] Metro.co.uk. Available at: <https://metro.co.uk/2019/01/18/need-talk-psychological-effects-suffering-sports-injury-8352193/> [Accessed 19 Feb. 2020].**

**NEO PRIME SPORT. (2019). Top 10 Most Popular Sports in the United Kingdom. [online] Available at: <https://neoprimesport.com/top-10-most-popular-sports-in-the-united-kingdom/> [Accessed 19 Feb. 2020].**

**nhs.uk. (2020). 5 steps to mental wellbeing. [online] Available at: <https://www.nhs.uk/conditions/stress-anxiety-depression/improve-mental-wellbeing/> [Accessed 19 Feb. 2020].**

**NIH News in Health. (2018). Creating Healthy Habits. [online] Available at: <https://newsinhealth.nih.gov/2018/03/creating-healthy-habits> [Accessed 19 Feb. 2020].**

**Ohrnberger, J., Fichera, E. and Sutton, M. (2017). The relationship between physical and mental health: A mediation analysis. *Social Science & Medicine*, 195, pp.42-49.**

**Onfit Training College. (n.d.). The effect of environment on a workout. [online] Available at: <https://onfit.edu.au/health-fitness-blog/the-effect-of-environment-on-a-workout/> [Accessed 19 Feb. 2020].**

**Overstock.com. (2019). Overstock.com: Online Shopping - Bedding, Furniture, Electronics, Jewelry, Clothing & more. [online] Available at: <https://www.overstock.com/guides/top-10-benefits-of-using-a-rowing-machine> [Accessed 19 Feb. 2020].**

**Pinto, S. (2020). Body Dysmorphia from a Gym Addiction | Timberline Knolls. [online] Timberline Knolls. Available at: <https://www.timberline-knolls.com/eating-disorder/body-dysmorphia/how-it-impacts-women/> [Accessed 19 Feb. 2020].**

**Popularity, Y. (2018). Yoga Statistics: Staggering Growth Shows Ever-increasing Popularity. [online] The Good Body. Available at: <https://www.thegoodbody.com/yoga-statistics/> [Accessed 21 Feb. 2020].**

# BIBLIOGRAPHY

**Quesnel, C. (2018). 2018 STATE OF THE UK FITNESS INDUSTRY REPORT - OUT NOW – The Leisure Database Company. [online] The Leisure Database Company. Available at: <https://www.leisuredb.com/blogs/2018/5/16/2018-state-of-the-uk-fitness-industry-report-out-now> [Accessed 19 Feb. 2020].**

**Reid, T. (2014). The Right Way to Warm Up for Your Workout. [online] Lifehacker. Available at: <https://lifehacker.com/the-right-way-to-warm-up-for-your-workout-1642879389> [Accessed 19 Feb. 2020].**

**Richardson, A. (2017). 7 Strategies to Make Healthy Habits Stick. [online] Huffpost.com. Available at: [https://www.huffpost.com/entry/7-strategies-to-make-healthy-habits-stick\\_b\\_10220356?guccounter=1&guce\\_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLnNvbS8&guce\\_referrer\\_sig=AQA-AACu-a8DpxY8Yqz\\_ZrqPJ3F9ckhlc\\_a0\\_fyFMTtEN5cZpTiCyqSkIPPQ5BZJd6DTIfEukrEV5dHPOpjWj2gUhkUbd5Gyot7v8Nn9bfuj5uSoyDpLA8XxRvLplyjqaE-meOn2uBhZ8iuguSBLpdQy59IBDrx-4BicLTIwXNY-CFfac5](https://www.huffpost.com/entry/7-strategies-to-make-healthy-habits-stick_b_10220356?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLnNvbS8&guce_referrer_sig=AQA-AACu-a8DpxY8Yqz_ZrqPJ3F9ckhlc_a0_fyFMTtEN5cZpTiCyqSkIPPQ5BZJd6DTIfEukrEV5dHPOpjWj2gUhkUbd5Gyot7v8Nn9bfuj5uSoyDpLA8XxRvLplyjqaE-meOn2uBhZ8iuguSBLpdQy59IBDrx-4BicLTIwXNY-CFfac5) [Accessed 19 Feb. 2020].**

**Roberts, A. (2019). Self-conscious at the gym? Here are three ways around that | JOE.co.uk. [online] JOE.co.uk. Available at: <https://www.joe.co.uk/fitness-health/self-conscious-gym-tips-214868> [Accessed 20 Feb. 2020].**

**Sahealth.sa.gov.au. (2019). The risk of inactivity :: SA Health. [online] Available at: <https://www.sahealth.sa.gov.au/wps/wcm/connect/public-content/sa+health+internet/healthy+living/is+your+health+at+risk/the+risk+of+inactivity> [Accessed 19 Feb. 2020].**

**Screenshot 2020-02-07 at 13.51.21 (Survey title)**

**Screenshot 2020-02-14 at 16.39.05 (Male vs Female graph)**

**Screenshot 2020-02-14 at 16.39.24 (Ages)**

**Screenshot 2020-02-14 at 16.39.51 (participation in regular fitness)**

**Screenshot 2020-02-14 at 16.40.00 (Mental health rating)**

**Screenshot 2020-02-14 at 16.40.12 (Positive benefits of exercise)**

**Screenshot 2020-02-14 at 16.41.15 (Reasons against exercising)**

**Screenshot 2020-02-14 at 16.41.23 (Do you see any negative effects when exercising)**

**Screenshot 2020-02-14 at 16.41.33 (Negative effects of exercise)**

**Screenshot 2020-02-14 at 16.41.41 (Would you consider eastern styles)**

**Screenshot 2020-02-19 at 10.09.00 (Interview questions)**

**Screenshot 2020-02-19 at 10.11.05 (Karls answers)**

# BIBLIOGRAPHY

Screenshot 2020-02-19 at 10.15.21 (Megan's answers)

Screenshot 2020-02-19 at 10.16.22 (Esther's answers)

Screenshot 2020-02-19 at 10.17.22 (Catherines answers)

Screenshot 2020-02-19 at 10.18.20 (Jims answers)

Screenshot 2020-02-19 at 11.15.55 (Reeces answers)

Screenshot 2020-02-19 at 11.16.46 (Emily's answers)

Scully, E. (2019). 21 Day Habit Timeline: How to Form a Habit in 21 Days (Day by Day!). [online] Medium. Available at: <https://medium.com/swlh/21-day-habit-timeline-how-to-form-a-habit-in-21-days-day-by-day-92298446bf6b> [Accessed 19 Feb. 2020].

Semeco, A. (2017). The Top 10 Benefits of Regular Exercise. [online] Healthline. Available at: <https://www.healthline.com/nutrition/10-benefits-of-exercise> [Accessed 19 Feb. 2020].

Sharecare. (2020). Finding Your Place on the Mat. [online] Available at: <https://www.sharecare.com/health/mind-body-exercise/article/tai-chi-yoga> [Accessed 19 Feb. 2020].

Statista. (2016). Reasons for not participating in sports by gender in Wales 2014 | Statistic | Statista. [online] Available at: <https://www.statista.com/statistics/581410/reasons-for-not-participating-in-sports-by-gender-in-wales/> [Accessed 19 Feb. 2020].

SurveyMonkey (n.d.). Surveymonkey logo. [image] Available at: [https://www.google.com/search?q=survey+monkey&sxsrf=ACYBGNQkwS3g-fjEUCFROZdjEG1BGE3zmVA:1581083273147&source=lnms&tbm=isch&sa=X&ved=2ahUKEwigt-yWyr\\_nAhUEilwKHblOC-OQ\\_AUoAXoECAOQAw&biw=1440&bih=821#imgrc=jUdgKOC8Th1CzM](https://www.google.com/search?q=survey+monkey&sxsrf=ACYBGNQkwS3g-fjEUCFROZdjEG1BGE3zmVA:1581083273147&source=lnms&tbm=isch&sa=X&ved=2ahUKEwigt-yWyr_nAhUEilwKHblOC-OQ_AUoAXoECAOQAw&biw=1440&bih=821#imgrc=jUdgKOC8Th1CzM) [Accessed 19 Feb. 2020].

Tarro, E. (2015). What really stops people from sports participation?. [online] The Sportlyzer Blog. Available at: <https://blog.sportlyzer.com/en/sports-participation-europe/> [Accessed 19 Feb. 2020].

The Red Delta Project. (2011). Eastern vs. Western Fitness Philosophies - The Red Delta Project. [online] Available at: <https://reddeltaproject.com/eastern-vs-western-fitness-philosophies/> [Accessed 19 Feb. 2020].

# BIBLIOGRAPHY

**The stigma of mental illness - end of the story?. (2020). [ebook] Springer. Available at: [https://books.google.co.uk/books?id=IFrSDAAAQBAJ&print-sec=frontcover&dq=mental+health+taboo+subject&hl=en&sa=X&ved=0ahUKEwjXm\\_yYmr\\_nAhVJT8AKHS-gAyAQ6AEIKTAA#v=onepage&q=mental%20health%20taboo%20subject&f=false](https://books.google.co.uk/books?id=IFrSDAAAQBAJ&print-sec=frontcover&dq=mental+health+taboo+subject&hl=en&sa=X&ved=0ahUKEwjXm_yYmr_nAhVJT8AKHS-gAyAQ6AEIKTAA#v=onepage&q=mental%20health%20taboo%20subject&f=false) [Accessed 19 Feb. 2020].**

**The UKs best running club. (n.d.). [ebook] p.1. Available at: <http://www.southcheshireharriers.org.uk/membership/bestclubentry09.pdf> [Accessed 19 Feb. 2020].**

**Time To Change. (2020). | Time To Change. [online] Available at: <https://www.time-to-change.org.uk/category/blog/talking-about-mental-health> [Accessed 19 Feb. 2020].**

**Untappedgenius.com. (2018). 10 benefits of a clear mind. [online] Available at: <https://untappedgenius.com/10-benefits-of-a-clear-mind/> [Accessed 19 Feb. 2020].**

**Wain, R. (n.d.). Body Dysmorphic Disorder. [image] Available at: [https://www.google.com/search?q=body+dysmorphia&sxsrf=ACYBGNSSiCFaM-1JqDXUWb\\_4Bje1JKDARQ:1581082454697&source=lnms&tbn=isch&sa=X&ved=2ahUKEwj4m8qQx7\\_nAhUDnVwKHSxODWUQ\\_AUoAXoECA4QAw&biw=1440&bih=821#imgrc=9VMN3y2T2GAMPM](https://www.google.com/search?q=body+dysmorphia&sxsrf=ACYBGNSSiCFaM-1JqDXUWb_4Bje1JKDARQ:1581082454697&source=lnms&tbn=isch&sa=X&ved=2ahUKEwj4m8qQx7_nAhUDnVwKHSxODWUQ_AUoAXoECA4QAw&biw=1440&bih=821#imgrc=9VMN3y2T2GAMPM) [Accessed 19 Feb. 2020].**

**WebMD. (2020). Causes of Mental Illness. [online] Available at: <https://www.webmd.com/mental-health/mental-health-causes-mental-illness#1> [Accessed 19 Feb. 2020].**

**Who.int. (2020). WHO | Mental disorders affect one in four people. [online] Available at: [https://www.who.int/whr/2001/media\\_centre/press\\_release/en/](https://www.who.int/whr/2001/media_centre/press_release/en/) [Accessed 19 Feb. 2020].**

**Who.int. (2020). WHO | Physical Inactivity: A Global Public Health Problem. [online] Available at: [https://www.who.int/dietphysicalactivity/fact-sheet\\_inactivity/en/](https://www.who.int/dietphysicalactivity/fact-sheet_inactivity/en/) [Accessed 19 Feb. 2020].**

**Widrich, L. (2014). What Happens To Our Brains When We Exercise And How It Makes Us Happier. [online] Fast Company. Available at: <https://www.fastcompany.com/3025957/what-happens-to-our-brains-when-we-exercise-and-how-it-makes-us-happier> [Accessed 19 Feb. 2020].**