

Freewheel by Ride For Freedom



An impact study on the physical and mental health benefits of providing survivors of modern slavery with bicycles, accessories and cycling proficiency training

“The more I cycle, the happier I am. It gives me freedom” Participant VCL

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Foreword

In late 2020, Unseen was approached by Gordon Miller, Founder & Team Leader at Ride for Freedom CIC and a friend of Unseen. Gordon leads on delivering cycling initiatives and personally undertaking challenges, setting two Guinness World Records along the way, to raise awareness, educate and forge partnerships to end the scourge of modern slavery on society today.

Unseen works directly with survivors of modern slavery by providing safe house accommodation, support and outreach services in the community. Many of our 'clients' struggle with their mental and physical health due to the trauma they've experienced.

Gordon knows well the benefits that cycling can contribute to a person's wellbeing. So, when he approached Unseen with his idea of creating the project *Freewheel by Ride For Freedom* to harness pedal power to increase the physical and emotional wellness of the survivors Unseen works with, we were keen to take part in the pilot.

Run throughout 2021, despite the complications wrought by Covid, it's been a successful pilot. Even though comprehensive data has been difficult to obtain (due to the challenges our client group face), the evaluation has shown the benefits cycling provides – increased mobility, independence, confidence and self-reliance.

Unseen has watched with delight as survivors have cycled off, following their proficiency training delivered by Life Cycle, with donated bikes, helmets, lights and locks. We look forward to working in collaboration in the future.

A handwritten signature in black ink, reading "Andrew Wallis", on a white rectangular background.

Andrew Wallis OBE
CEO, Unseen

List of Definitions

Modern Slavery

“The recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs;” (Palermo Protocol, 2000).

Active

Within the context of this survey, active refers to the amount of physical activity the participants generally partake in, whether for enjoyment or to improve their mental and physical health.

Transport Independence

Within the context of this survey, transport independence refers to how much the participants rely on others for transport to go about their daily life.

Mobility

Within the context of this survey, mobility refers to the participants ability to go where they want, when they want to.

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Executive Summary

This report studied the impact of *Freewheel by Ride For Freedom* programme on survivors of modern slavery. The programme provided the survivors with a bicycle, accessories, training, and support, in order to see that there would be improvement in their physical and mental health, as well as sense of independence and mobility. The participants answered survey questions before and after the programme, and the report analysed and compared these answers in order to find levels of improvement amongst mental health, physical health and general cycling ability.

Findings

The report concludes that *Freewheel by Ride For Freedom* successfully improved the mental health of the survivors of modern slavery that participated in the programme. On average, across the participants, mental health was the category that was improved on the most, in particular, a sense of independence surrounding the participants' transport. Access to bikes improved the participants' sense of mobility and ability to travel without dependence on others.

The case studies showed that for participants IKM and VCL who had ridden bikes before the pilot, *Freewheel by Ride For Freedom* still had a positive impact on their mental health, and left them feeling as though they have more independence in terms of their transport and ability to get around.

“The more I cycle, the happier I am. It gives me freedom”

Freewheel Participant VCL – survey

Participants also felt an increase in their sense of general fitness, and an overwhelming improvement in terms of their mental health and how they feel about their ability to be ‘transport independent’. The participants in this particular group did not feel an improvement in terms of their cycling ability, as most felt confident to begin with and thus did not feel they needed to improve, but rather gain confidence and access to a bike.

Conclusions

When asked about their ability to get around and how they usually get around, many participants commented on their inability to get around due to money and the cost of public transport.

Most participants commented on the use of train as transportation, which is an ever-increasing cost, and with trains being cancelled and reduced as a consequence of the pandemic, they are becoming a difficult method of transportation to use.

The ‘Going places: Journeys to recovery’ study (Rights Lab, University of Nottingham; Romanac Consulting et al (2020) noted survivors currently have to cover all transport costs upfront and can claim back costs for some journeys but not all; this is particularly challenging if they are in the NRM when their subsistence support remains very low.

The sense of mobility gained by the participants was clear to see within the data collated from the surveys. A sense of independence is very important to the survivors, and the ability for them to have cheap, reliable transport is essential to this sense of independence.

Participants also commented on the sense of happiness they felt when riding the bikes, which certainly contributed towards the improvement seen within the mental health of the survivors.

Overall, according to the data, *Freewheel by Ride For Freedom* improved the mental health and sense of transport independence of survivors of modern slavery, as well as having an improvement on their general health. All participants felt as though the programme gave them a sense of freedom and happiness by providing them with bikes, accessories, training, and support.

Learnings

For the future development of *Freewheel by Ride For Freedom*, there are learnings that can be taken from this research report which will help to improve any future research and the programme.

Firstly, there was a need to assess the quality and roadworthiness of the bikes before they were donated. One of the bikes donated was deemed unsafe to use, and a second one had to have some work done on the morning of the training session before it was deemed useable.

Additionally, it became apparent that impact studies create questionnaire fatigue amongst the participants and caseworkers. They are often asked to fill out questionnaires and surveys, and therefore their responses tended to be closed and rushed as a consequence. An alternative was suggested that if the survey was made available too online, using a platform such as survey monkey, the caseworkers could be circumvented, and the survivors could complete the questionnaire at their own convenience. This would also prevent some of the repeated, uninformative responses that were seen in the long-form response boxes.

Communication between the research team and the charity was stretched at times, primarily due to resource challenges of the latter. In order to meet future requirements, expectations around the completion of participants' questionnaires, timeliness and communication would be necessary in order to ensure the success of the programme.

Section One: Introduction

1.1 Hypothesis

This study was conducted to test the hypothesis that: if one provides survivors of modern slavery with a bicycle, accessories, training and support, there will be an improvement in their physical and mental health, sense of independence and mobility.

This study aims to examine the impact on survivors of modern slavery before and after the *Freewheel by Ride For Freedom* cycling programme which provides them with bikes, accessories, and training, to see whether their physical and mental health improve, as well as their sense of independence and ability to get around (mobility).

These variables will help to improve quality of life for the survivors enabling them to rehabilitate and rebuild their lives easier, by increasing their ability to move around and therefore their opportunities, as well as giving them a mental and physical stimulus.

1.2 Why Cycling?

The benefits of cycling amongst adults is well documented, in terms of physical fitness as well as mental health. Oja et al. describe the health benefits of cycling in adults, especially in terms of cardiovascular health and cognitive function: 'Recent research on physical activity and health provides continuing, consistent, and increasingly specific evidence to support the importance of physical activity for public health.' (Oja et al., 2011:1). Studies such as those from Gordon-Larsen

et al. (2009), and Bassett et al. (2008) prove that a combination of walking and cycling, what Oja et al. (2011) refer to as ‘active commuting’ has a highly positive impact on physical health, including reducing the risk of cardiac events amongst others.

By giving the survivors access to ‘active commuting’ their general health and fitness can be massively improved whilst allowing for an overall improvement in their sense of independence and freedom.

1.2 Purpose

This report investigates the impact of *Freewheel by Ride For Freedom* cycling programme on survivors of modern slavery, delivered in partnership within Unseen.

The programme aims to improve the day to day lives of the survivors, by providing them with the facilities to cycle, and training them in cycling proficiency and road safety. Through this, the programme aims to increase the survivors’ general ability to cycle, physical and mental health, as well as independence and mobility.

This study has been undertaken to evidence the need and ongoing demand for the Freewheel provision and service. Post-report, the aim by *Ride For Freedom*, working in partnership with the third sector and commercial organisations, is to initially rollout the programme in a series of ‘Freewheel Hubs’ in cities and regions nationally and globally in the future.

This report uses surveys given to the survivors before and after the programme in order to assess these criteria and understand the impact that the programme had on the survivors. Through using this method of data collection and a range

of question methods and converting this into the Likert Scale this report assesses the difference between the surveys to see whether there is significant change between the criteria of general ability, physical health, and mental health (including independence).

The improvement within the participants is assessed within this report based on the formula:

$$\text{Average Score After} - \text{Average Score Before} = \text{Average Improvement}$$

This is then utilised across many different methods of analysis, including by criteria, hypothesis, individual participants and questions.

The report is also informed by the case studies of two particular participants who displayed a significant improvement in their mental health and sense of independence as a result of *Freewheel by Ride For Freedom*, despite already being able to cycle. The case studies represent that the facilitation of cycling is just as important in terms of being able to travel and have more mobility/freedom for the survivors.

This report thus assesses through a range of methods, the impact of *Freewheel by Ride For Freedom*, a cycling programme designed to empower survivors of modern slavery. The research concludes that *Freewheel by Ride For Freedom* has had a positive impact on survivors mental health, mobility and physical health, regardless of their cycling ability.

Section Two: Methodology

2.1 Introduction

This project is informed by both a quantitative and a qualitative methodological approach. To evaluate the impact of the *Freewheel by Ride For Freedom* cycling programme on the survivors of modern slavery, the research is informed by three primary assessment criteria: cycling ability, physical health, and mental health. These criteria have been chosen to measure the impact of the programme on the participants from all the relevant aspects that the programme aims to improve. By assessing these three criteria, a specific methodological approach must be taken. Therefore, the research design of this project is based on a before-and-after model, as it is the most appropriate method for structuring the project whilst considering its potential limitations. “Adopting the same process as a cross-sectional study except that it comprises two cross-sectional data sets, the second being undertaken after a certain period.” (Kumar, 2011:107). So, in practice, the data is taken from the participants once before the programme, and once after, analysing the difference between the two.

Additionally, the report also benefits from case studies as a qualitative approach, as this aids a more in-depth view of the impact of the programme and to show the improvement of individuals. Grinnell argues that a case study method “is characterized by a very flexible and open-ended technique of data collection and analysis.” (1981: 302), its flexibility meaning that it can be used in combination with a before-and-after method, to selectively examine particular participants within the programme and their progress. This method allows for measuring the abstract criterion and addressing the hypothesis. Although measurable to some

degree, physical and mental health concepts such as mobility, physical fitness, and independence can be understood as qualitative as well as quantitative.

The main instrument for the before-and-after research design in this case is a questionnaire. There are many advantages and disadvantages to this instrument, Kumar (2011) argues that there is good anonymity which works for the survivors, but there is also an issue of self-serving bias. I will address these limitations later in the methodology.

Therefore, the combination of a quantitative before-and-after research design and qualitative case studies using the instrument of a questionnaire, is arguably the most suitable approach therefore, for evaluating the three primary assessment criteria of the cycling ability, physical health, and mental health of the participants. Additionally, this project does recognise limitations, which are addressed by this research method, and will be discussed within this methodology to demonstrate the boundaries of this project.

2.2 Methodological Limitations

To sufficiently analyse the data and understand the impact of the cycling programmes on the victims, it is important to consider the boundaries and limitations which might inhibit any data collection. First and foremost, for many of the participants, English is not their first language, and therefore a language barrier is something that is carefully considered throughout the development of the data collection method. Secondly, it is also important to consider that many of the participants are easily overwhelmed due to their traumas, and the disorientation of having to encounter questions that are not necessarily in their native language would also contribute to this. If the participant is overwhelmed it is also possible that their responses will be incoherent, shortened, or unable to

be used for analysis later. Research highlights that short, clear, and concise questions are more likely to gain useable and effective responses (Kumar, 2011:146).

Additional limitations were also placed upon the programme due to the COVID-19 pandemic, which limited social contact on and off throughout the creation and delivery of the programme. The project was ultimately able to take place as social contact was not limited at the time when the cycling training was delivered. The UK Government's 'work from home when possible' directive did not encumber the research as the analysis is blind from the participants – therefore any bias that may have incurred from the data being anything other than anonymous was eliminated.

2.3 Choice of Method

The questionnaire benefits from a mixture of open ended and closed questions. Open ended questions often do not garner responses from the participants (Kumar, 2011), and in the case of the survivors, more nervous or easily overwhelmed participants might feel the need to skip these questions. However, when these questions are answered, they give a clearer and more in-depth indication of the participants' feelings towards the issue. Closed questions are more likely to gain a response but do not offer much in terms of information about the participants' feelings and can suffer from researcher bias. By combining the types of questions by first asking for a closed answer, and then allowing for the participant to expand on this answer, the questionnaire benefits from both types of question. In order to properly counter the issue of researcher bias, the questions also avoid leading the participant and will offer a large range of response options.

2.4 Creating the Survey

The structure of the questionnaire was built through subheadings of the three criteria: cycling ability, physical health, mental health, and a fourth subheading of final thoughts so that the participants were able to mention anything they felt relevant that wasn't previously discussed in the survey. The questions styles ranged from 1-10 rankings, multiple choice and open answer boxes in order to give variation to the types of analysis that can be done on the responses. It was key in this instance that only one question was asked at a time, in order for the questionnaire to be as simple as possible for the participants who could be easily overwhelmed or have language barriers.

Developments made to the survey were abundant, including the addition of emoticon faces for responses to mental health questions, which were followed by an answer box so that, if possible, the participants could expand on their answers. This meant that the participants with a language barrier had an easier time answering the questions. A welcome was suggested, introducing the survey, but this was later abandoned due to language barriers, overwhelming the participants and also potentially creating bias. A 1-10 scale on particular questions was also criticised, for example "how would you rank your cycling ability" as it was viewed as too binary. From this, the survey developed tick lists in which the participant could select from a range of answers, any of which were relevant. A very important development was defining terms at the start of each subsection, so that the caseworkers had an easier time discussing the survey with participants. The black and white format changed to green, for readability purposes, and because green is a neutral colour. Various wordings also changed, such as the term

‘scared’ which was viewed as potentially being misinterpreted by participants who had endured a lot as survivors. Additionally, there was also the idea of specifying ‘independence’ into ‘transport independence’ as the term independence was too vague and broad for the questions that were being asked.

2.5 Participant Selection

Unseen invited all its safe house residents and clients living in community housing to register their interest to join the programme. The invitations were made on a one-to-one basis by case workers and posters were placed in the communal areas of the safe houses.

2.6 Conclusion

The report uses both qualitative and quantitative research methods, benefiting from both a before-and-after research design and case study analysis. The instrument of collection is a survey, which uses three subheadings of the criteria: cycling ability, physical health and mental health. The questionnaire takes into consideration English language barriers as well as easily overwhelmed and anxious participants, by using plain language, emoticons and not having a welcome or introduction. There is a mixture of open ended and closed questions throughout the survey, and developments have been made in order to ensure it is as effective as possible at collecting useable data from these particular participants. The questionnaire and its previous iterations can be viewed in Appendix 1a, 1b, and 1c.

Section Three: Data Analysis

3.1 Data Analysis Method

To analyse the responses to the questionnaire, the responses were given a numerical value based on the Likert Scale. “The summated rating scale, more commonly known as the Likert scale, is based upon the assumption that each statement/item on the scale has equal attitudinal value, ‘importance’ or ‘weight’ in terms of reflecting an attitude towards the issue in question.” (Kumar, 2011:159).

| VALUE: | 5 | 4 | 3 | 2 | 1 | 0 | -1 | -2 | -3 | -4 | -5 |
|---|----|---|---|--------|----------|----------------|-------------|----------------|--------|---------|------|
| Have you ever ridden a bike before? | | | | | YES | | NO | | | | |
| How does cycling make you feel? | | | | | HAPPY | OK | NO | | | | |
| How do you feel about cycling? Tick all that apply: | | | | LOVE | OK | | DON'T ENJOY | DON'T KNOW HOW | | | |
| How often do you cycle? | | | | | OFTEN | DON'T KNOW HOW | NEVER | | | | |
| Do you feel active? Tick all that apply: | | | | VERY | MODERATE | | WISH | NOT | | | |
| Which best describes how you feel towards being active? | | | | | HAPPY | OK | SAD | | | | |
| Would you like to be more active? | | | | | HAPPY | OK | SAD | | | | |
| What affect does cycling have on your mental wellbeing? | | | | | YES | | OK | | | | |
| How independent do you feel, in terms of transport? | | | | | HAPPY | OK | SAD | | | | |
| How do you feel about your transport independence? | 10 | 9 | 8 | 7 | 6 | | 5 | 4 | 3 | 2 | 1 |
| Tick the statements that best fit how you feel about your transport independ. | | | | | HAPPY | OK | SAD | | | | |
| Do you think that cycling could improve your level of transport independence | | | | PLENTY | WISH | | LIMITED | MONEY | TRYING | NERVOUS | NONE |
| Considering your answers to the questionnaire, how do you feel? | | | | | YES | MAYBE | NO | | | | |

Fig. 1

As shown in *Fig. 1*, each response was given a value so that they can be assessed quantitatively and compared. By creating this scale, the data is given a numerical value, the differences between which can then be calculated as improvement through the formula of:

$$\text{Total Score After} - \text{Total Score Before} = \text{Rate of Improvement}$$

This rate of improvement can be calculated by participant, by question and by criteria. Additionally, average improvement formulae help to see the rate of

improvement over the participants, questions, and categories to understand which had the most impact.

$$\text{Average Response After} - \text{Average Response Before} = \text{Average Rate of Improvement}$$

This formula can then be filtered by participants, questions and categories. In the case of the criteria the formula used is:

$$\text{TOTAL: Average Response to Questions After} - \text{TOTAL: Average Response to Questions Before} = \text{Average Improvement by Criteria}$$

The benefit of this approach is that there is a numerical value on the participants improvement across the programme. It means that the data can also point out which participants improved the most, or a department in which the participants generally improved more.

There were a few anomalous responses from the participants which had to be accounted for within the data sets. In terms of the overview, the data sets were corrected to the last answer that the participant gave. For example, one participant stated that they had never ridden a bike before, but then also stated that they rode a bike often and that they loved cycling. To combat this issue, the following formula was used, (the value of yes in this case being 1, and the value of no being -1):

$$(\text{Total including anomaly} - \text{anomaly}) + 2 = \text{Total without anomaly}$$

Although it is important to emphasise that the data was not corrected unless it was obviously an anomaly. All anomalies are listed under appendix 2.

3.2 Data Findings

Using the completed data and the formulae stated above, several graphs were produced in order to compare the rate of improvement. The first of these was to compare the rate of improvement by the criteria of the questions: cycling ability, physical health, mental health, final thoughts, as well as overall improvement.

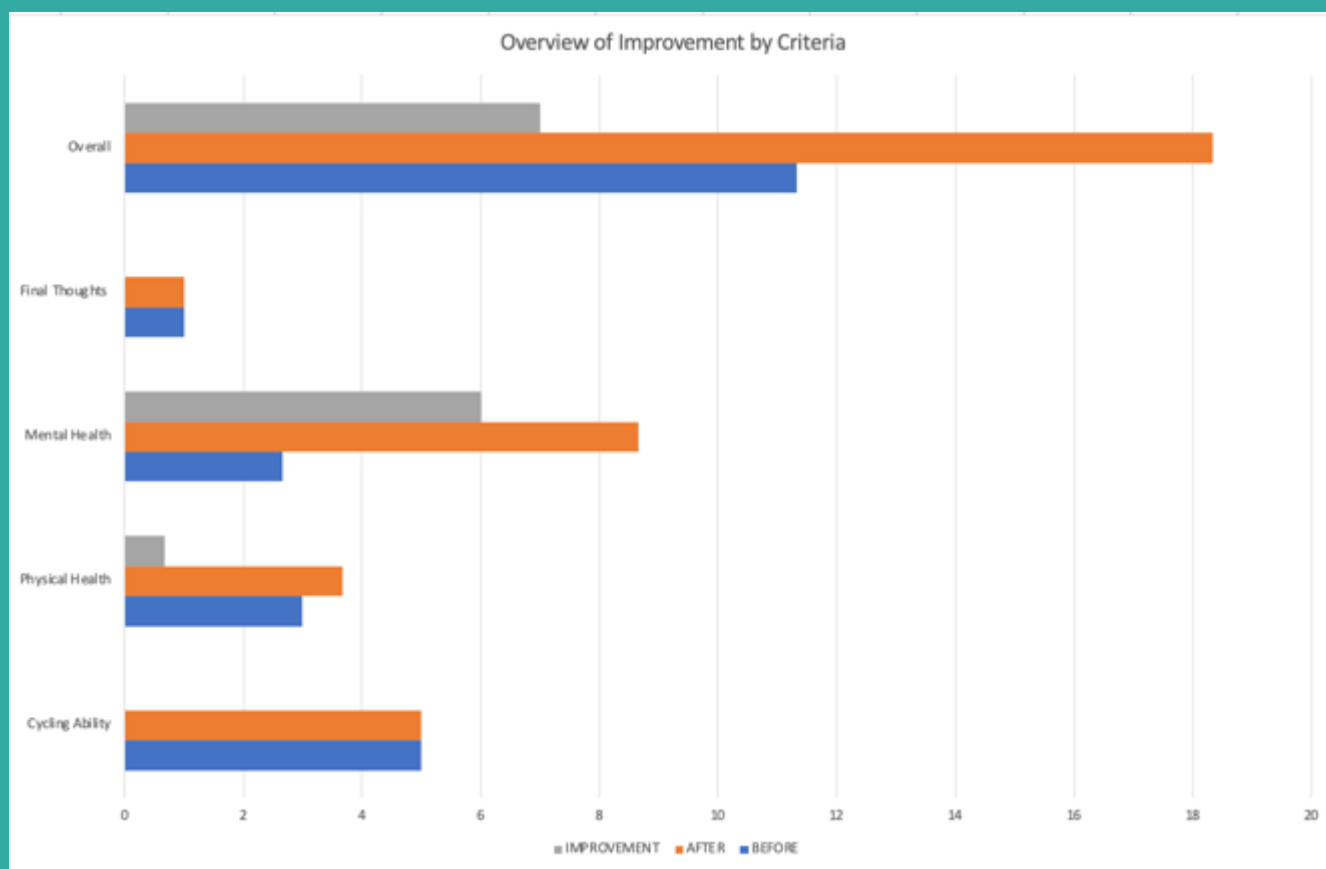


Fig. 2

Fig. 2 above shows an overview of the improved categorised by the question criteria. In blue, the bars show the answer to the questions before, orange shows

after, and grey represents overall. This graph allows us to see that although within these particular participants there has not been an improvement within their cycling ability or their feelings after completing the survey, the participants showed clear improvement in their physical and mental health.

The graph in *Fig. 3* below demonstrates the average improvement categorised by the question criteria: mental health, physical health, cycling ability, and final thoughts. The graph shows clearly that the improvements made were with regards to mental and physical health.

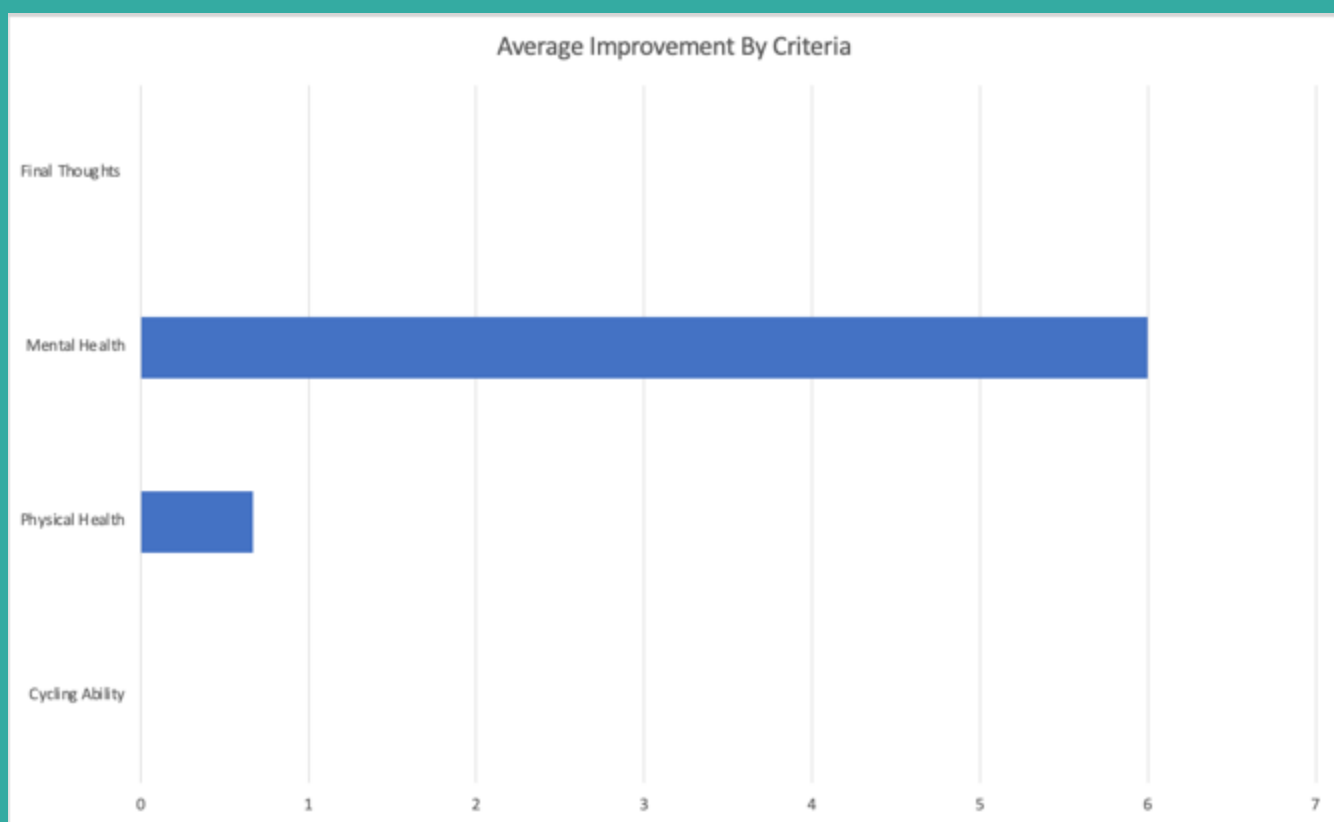


Fig. 3

It is clear from this graph that the most improvement made by the participants from *Freewheel by Ride For Freedom*, is in their mental health. The Likert Scale has helped to demonstrate on average, the participants experienced an

improvement in the mental health of 6 points. Additionally, participants responses to the questions reflected an average improvement of 0.6 points within their mental health.

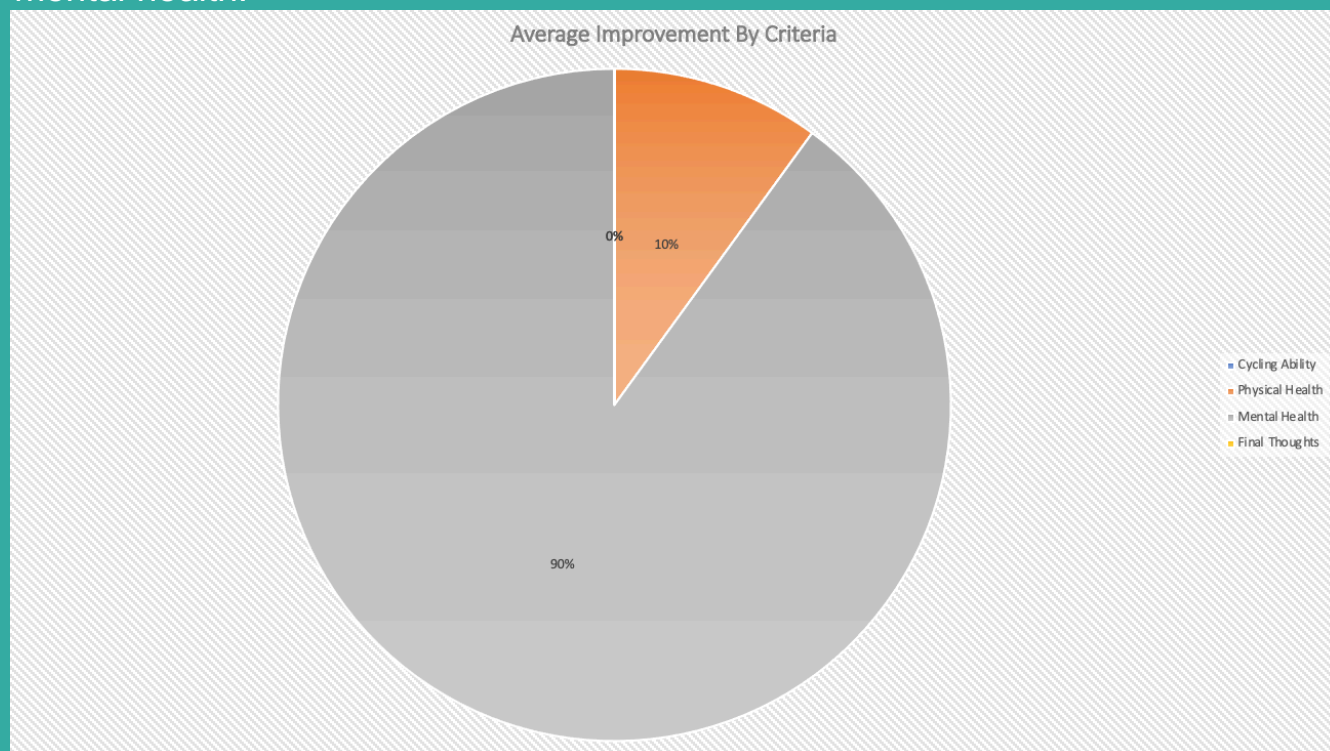


Fig. 4

The pie chart above in *Fig. 4* demonstrates that 90% of the improvement made by the participants was in regard to their mental health, and 10% with regards to their physical health. This can be explained by the fact that the survivors that took part in this trial had already felt that they were proficient at cycling, and therefore although there is little improvement in terms of physical health overall, it is still clear that the participants felt that both physically and mentally, they benefited from the *Freewheel by Ride For Freedom* programme.

This can be seen by analysing the questions individually and where the specific improvements for each question are made. The graph below in *Fig. 5* understands more detail within this regard, displaying the overview of

improvement by question: orange represents their responses before, blue after, and grey their improvement. It is important to note that no improvement was made with regards to the participants feelings towards cycling, their ability to cycle, how often they cycle or their levels of activity. The specific responses to these questions can be viewed in appendix 3a (I and II), 3b (I and II), and 3c (I and II).

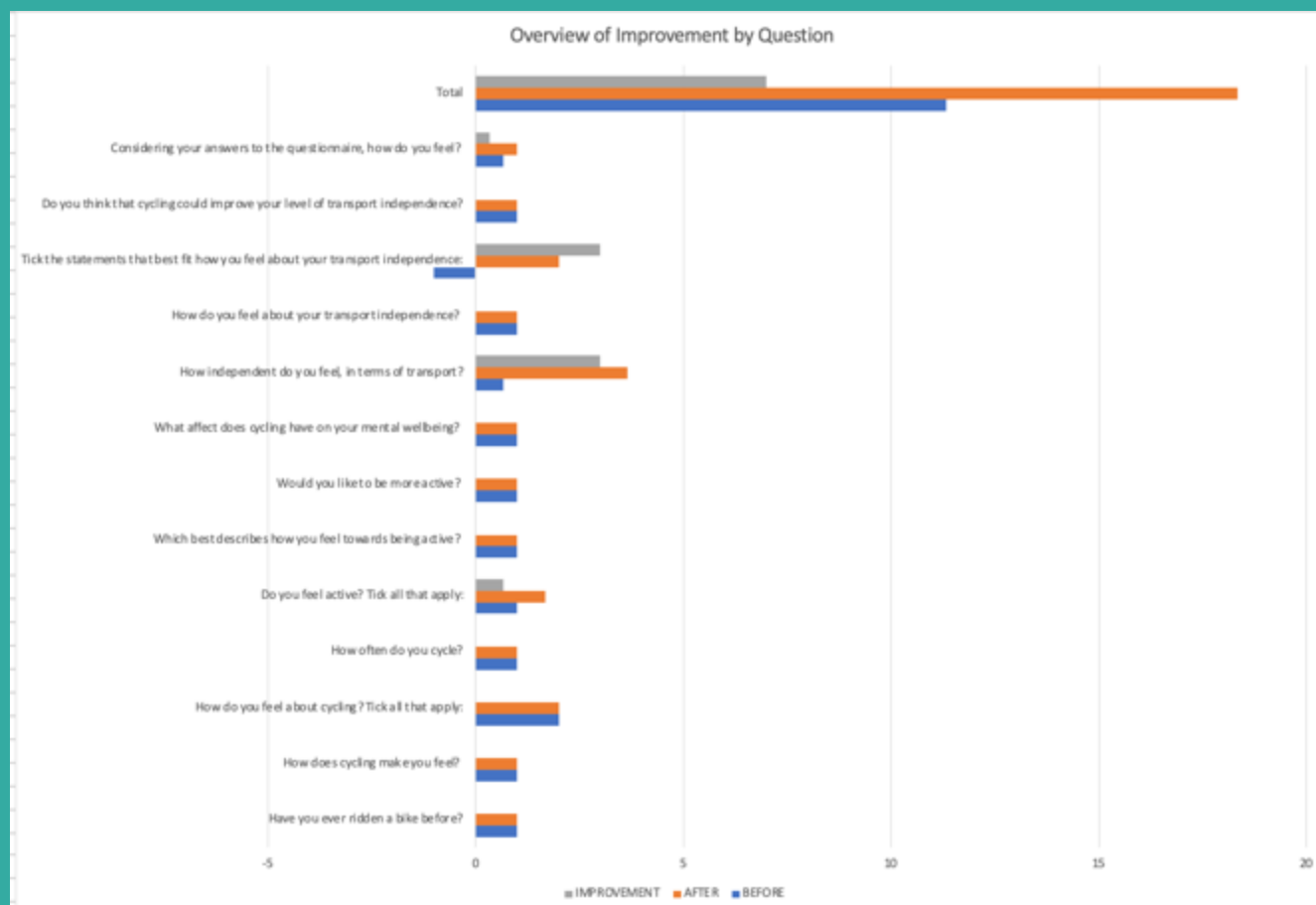


Fig. 5

Fig. 5 demonstrates that the highest scoring questions after the *Freewheel by Ride For Freedom* programme had taken place were 'how independent do you feel, in terms of transport' and 'tick the statements that best fit how you feel about your transport independence', which were both categorised under 'mental health'. It is also interesting to note that before *Freewheel by Ride For Freedom* took

place, the score from 'tick the statements that best fit how you feel about your transport independence' was -1, and after it was 2.

To better demonstrate the improvement in these areas, *Fig. 6* below displays the average improvement by question, displaying clearer that although the areas in which the survivors already felt adept did not change, there was a general improvement across a few key questions

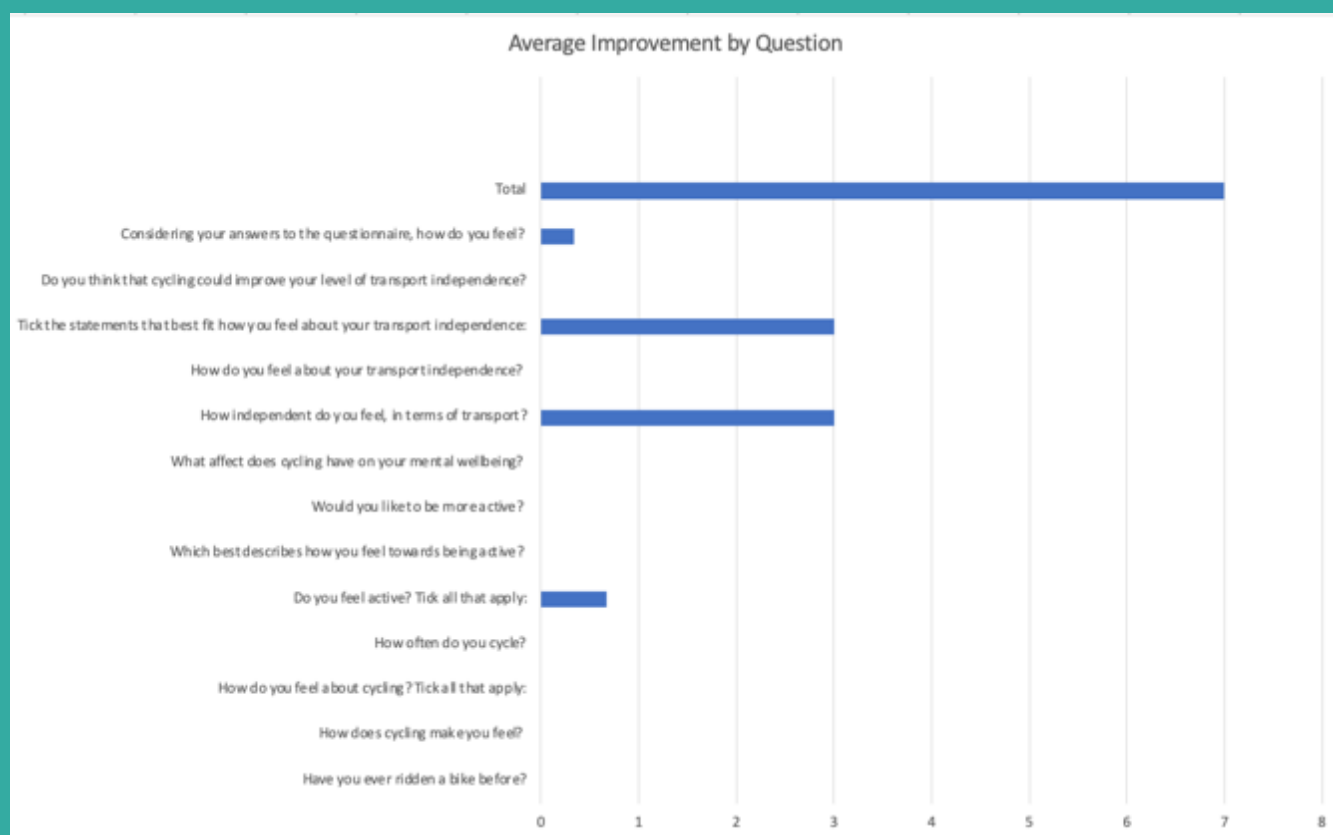


Fig. 6

The graph in *Fig. 6* allows us to see that in response to the questions 'tick the statements that best fit how you feel about your transport independence' and 'how independent you feel, in terms of your transport' the participants improved, on average, by 3 points. Additionally, it can be seen that the participants improved by 0.6 points in response to the question 'do you feel active? Tick all that apply'.

This clearly displays that the mental impact of *Freewheel by Ride For Freedom* was positive, and underlines that despite survivors feeling already competent at cycling, the programme still benefitted them in terms of their sense of independence and mobility, as well as their general levels of activity.

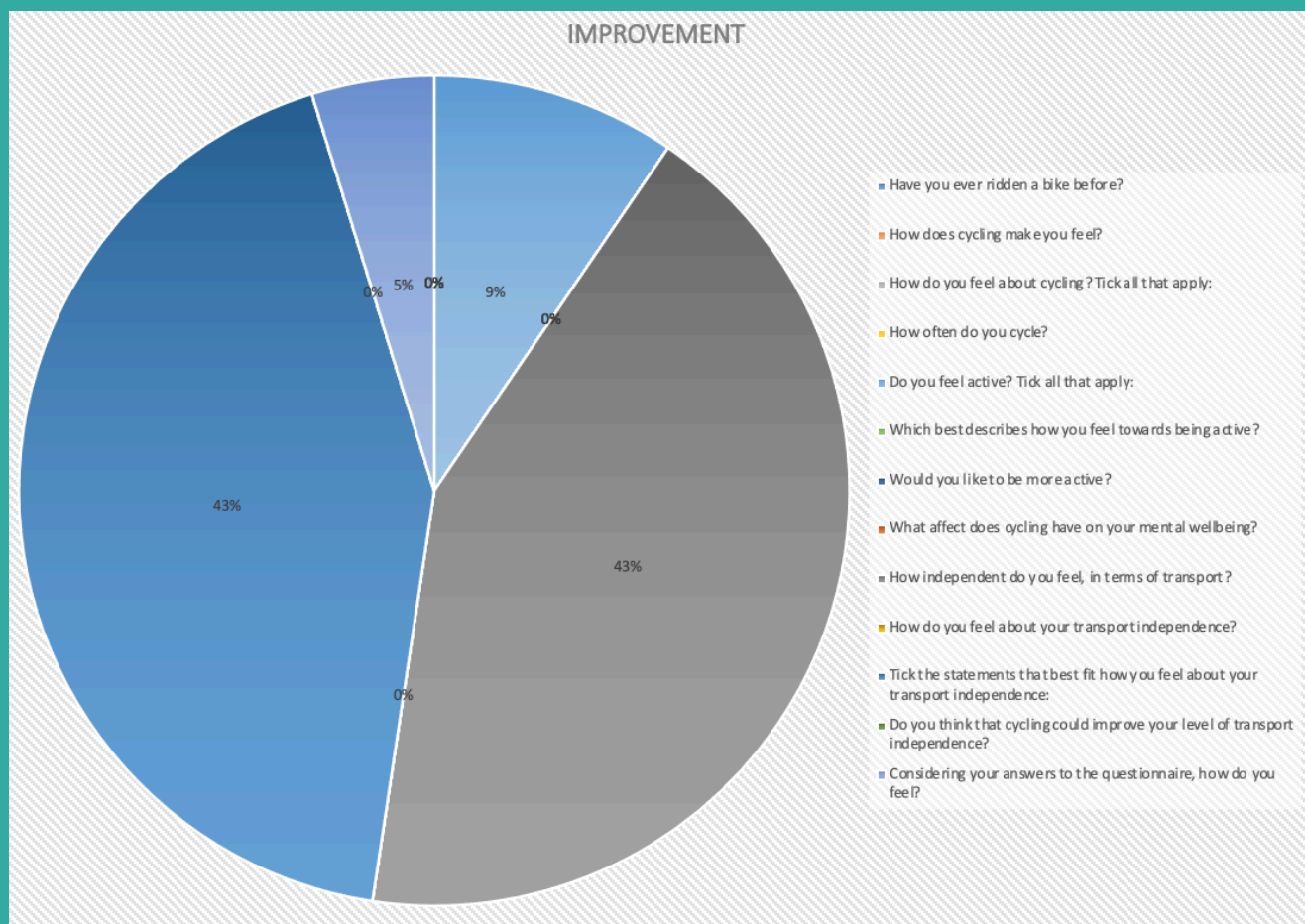


Fig. 7

The improvement in response to these questions can also be seen in the pie chart above, (Fig. 7) with 43% of the improvement being made by 'tick the statements that best fit how you feel about your transport independence' and 'how independent you feel, in terms of your transport', respectively. 9% of the improvement was then made by 'do you feel active', and 5% was with regards to the participants feelings at the end of the questionnaire.

To understand these figures in relation to the hypothesis, the three main goals of *Freewheel by Ride For Freedom* were to improve the survivors' physical health, mental health and sense of independence and mobility, or as termed in this report, 'transport independence'. The graph below in *Fig. 8* demonstrates the improvements made within these categories.

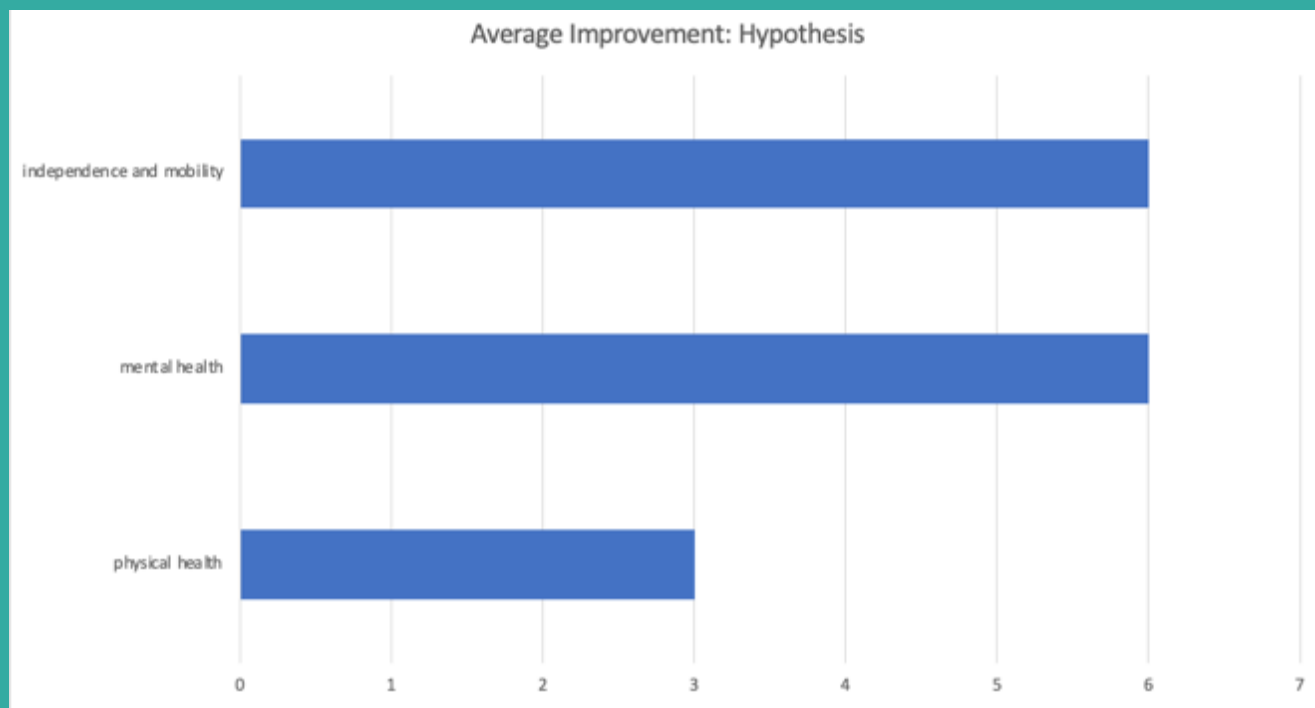


Fig. 8

As shown above, independence and mobility improved by 6 points, as did mental health. Physical health amongst the participants improved by 3 points, which although is not as substantial, still shows that despite already feeling competent, the participants still felt as though they benefitted physically from the programme. This improvement thus proves the hypothesis and validates the goals of *Freewheel by Ride For Freedom*, regardless of the cycling ability or physical fitness of the participant, as the survivors showed average improvement across all categories, especially mental health and independence.

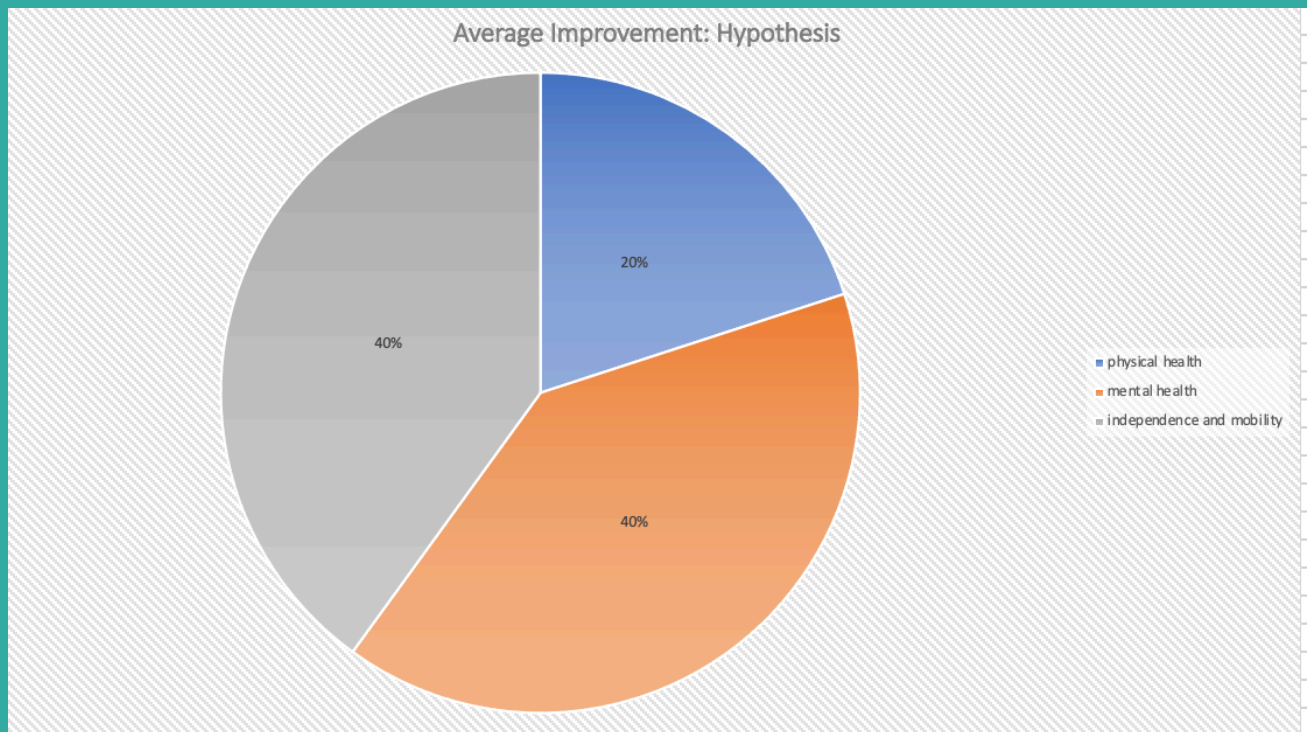


Fig. 9

The pie chart in *Fig.9* demonstrates the proportions of the improvements made by the participants, clearly showing that the largest improvements were split between mental health and mobility, constituting 40% each, whilst physical health constituted 20% of the improvements made. This could be due to the fact that many of the participants had already cycled before, so felt that their abilities had not been improved, but rather facilitated by *Freewheel by Ride For Freedom*.

3.3 Data Conclusions

The data clearly demonstrates that *Freewheel by Ride For Freedom* has a large impact on the survivors' mental health, specifically how they feel towards their transport independence and mobility, as well as how they feel towards their levels of activity and surrounding cycling. By using the Likert Scale and allocating a points-based system, the data was able to display abstract concepts such as

improvement in mental health and attitudes towards independence in a more comprehensive manner.

This data set shows that although these particular participants did not feel that their cycling skills improved, due to already being able to cycle proficiently, by facilitating their ability to cycle the survivors felt a greater sense of independence and an improvement in their mental health, in terms of their attitudes towards cycling.

Additionally, by categorising the question answers, the data displayed that in terms of the hypothesis, on average, all areas of physical health, mental health, and transport independence/mobility were improved by a significant number of points.

In terms of individual questions, it is also important to highlight the initial negative average with regards to the question: 'tick the statements that best fit how you feel about your transport independence' that was collated before the programme took place, and then became the highest scoring question, on average, after the programme. This was the greatest level of improvement across the questions and displays the highest value impact amongst the questions. Therefore, this question underlines the impact of *Freewheel by Ride For Freedom* on the sense of independence of the survivors.

Section Four: Case Studies

4.1 Case Study: Participant VCL

Participant VCL showed a clear progression and is a great example of the impact of the *Freewheel by Ride For Freedom* cycling programme, especially in terms of their mental health progression. According to the survey, VCL had cycled before, loved cycling, and cycled often, stating: “Only form of transport. Makes me feel good.” (VCL, 2021). VCL stated that they were very active, and that being active makes them happy: “Likes to be active, cycles to beach. Lifts spirits” (VCL, 2021), although VCL also stated that they would like to be more active.

Most of VCL’s responses refer to the way that cycling makes them feel, and when asked directly about the impact of cycling on their mental health, VCL stated: “If I have a bad head or feel low, cycling makes me feel better” (VCL, 2021). VCL’s sense of transport independence increased from a 7 to an 8 after the survey, and when asked about how they felt about their transport independence before the programme VCL ticked that they were trying to get more transport independence. By the end of the programme, they felt like they had plenty of transport independence, stating: “Cycles locally. Happy to use coaches/trains for long journeys” (VCL, 2021), and also stated that they felt that cycling would improve their transport independence, long term.

These answers frequently demonstrate the impact of cycling and the *Freewheel by Ride For Freedom* cycling programme on VCL's mental health. The freedom and mobility that VCL feels they gain from being able to cycle has a clear affect across questions of all three criteria (cycling ability, mental health, physical health). This underlines why the impact of such a programme is key to the rehabilitation of survivors of modern slavery, as the confidence and happiness that VCL can be seen to develop as a consequence of the programme is instrumental to so many aspects of their life. When asked about how they felt after the programme, VCL said: "The more I cycle, the happier I am. It gives me freedom" (VCL, 2021). The correlation between freedom and happiness can be seen throughout the progression of the *Freewheel by Ride For Freedom* programme, especially within participant VCL's answers.

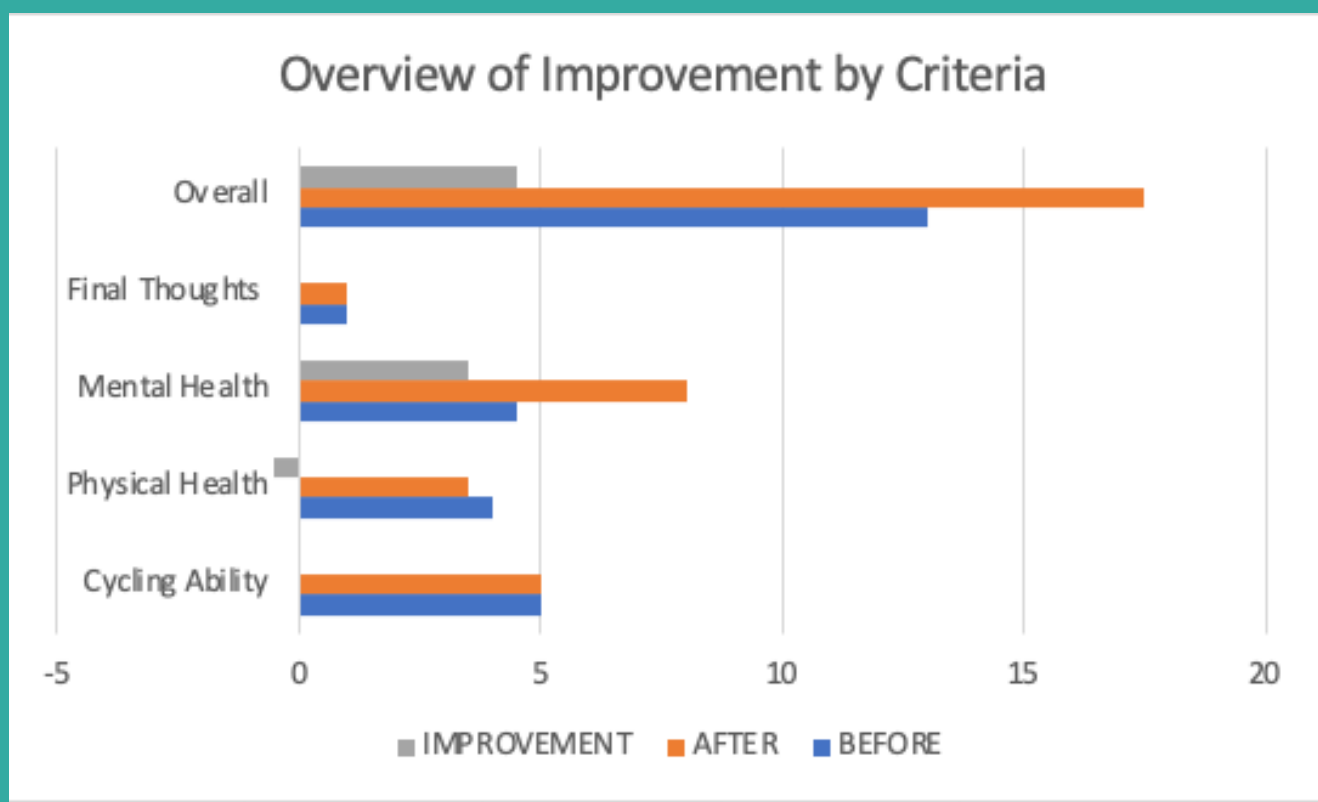


Fig. 10

In terms of data, as shown in *Fig. 10*, VCL's largest improvement was within the criteria of mental health, with an improvement score of 6 (based on the Likert scale key created to interpret the data).

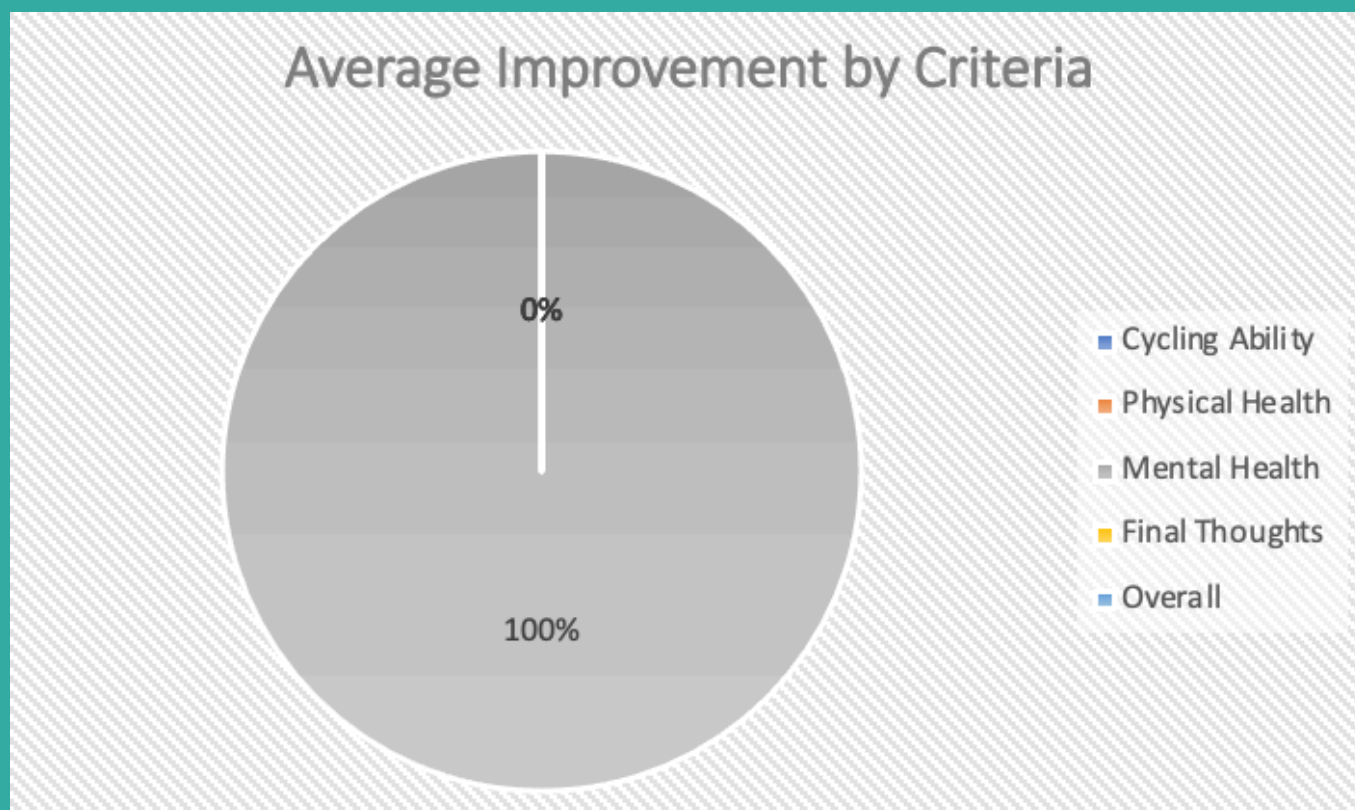


Fig. 11

As seen in *Fig. 11* above, it is clear that VCL's main improvement was made in the mental health criteria. This validates the importance of the *Freewheel by Ride For Freedom* cycling programme for survivors of modern slavery as this criteria has far reaching consequences. Research conducted into the relationship between mental health and rehabilitation for survivors of modern slavery states that: "It is also evident that several environmental factors (including post-conflict and socio-economic factors), as well as levels of social support and availability of access to education and employment, are likely to play a role in the efficacy of rehabilitation" (Katona et al., 2015:10). Access to education and employment are

highly dependent on mobility, therefore by increasing the participants mobility, their freedom has increased as well as their access to things such as education and employment.

In terms of specific questions, VCL specifically improved in “How independent do you feel, in terms of transport”, which plays into this issue of mobility and mental health. Furthermore, where VCL prior to the programme felt that they were trying to get more transport independence, this changed after the programme to feeling as though they had plenty of transport independence. This change is valuable to the analysis of VCL’s case, as it shows that *Freewheel by Ride For Freedom* specifically changed VCL’s outlook towards their ability to travel and how free they felt in terms of travel.

Overall, participant VCL had a particularly big leap in improvement in terms of their mental health as a consequence of the *Freewheel by Ride For Freedom* cycling programme. Participant VCL felt as though they gained freedom and mobility through the programme, which in turn made them increasingly happy. This particular case study emphasises the positive mental health impact of cycling and the Freewheel programme, and the correlation between cycling, independence, and happiness for the survivors. VCL’s full answers to the survey can be viewed in appendix 3aI and 3aII.

4.2 Case Study: Participant IKM

Participant IKM showed far less progression in terms of physical health and cycling ability when compared to other cases. However, it is important to highlight the impact of the programme on an already proficient, healthy participant who has been given access to a bike. It is clear to see from IKM's responses that they felt previously confident in terms of their physical health and cycling ability, as when asked why they were partaking in *Freewheel by Ride For Freedom*, their main desire was to "Improve cycling skills. Learn maintenance. Have fun." (IKM, 2021). IKM's data set shows a doubling of result in the mental health category, similarly to VCL. Participant IKM is an example of a participant who has gained a lot from *Freewheel by Ride For Freedom* in terms of their mental health, mentioning numerous times how happy cycling made them feel: "makes me feel good" (IKM, 2021), "Lifts my spirits, makes me happy" (IKM, 2021), "Gives me freedom, independence. Good for physical and mental health." (IKM, 2021). Such responses underline the clear value of cycling on this particular participants happiness, which is also seen across other participants such as VCL.

The mental health improvement that the *Freewheel by Ride For Freedom* programme facilitated for participant IKM is evident in figures 12 and 13.

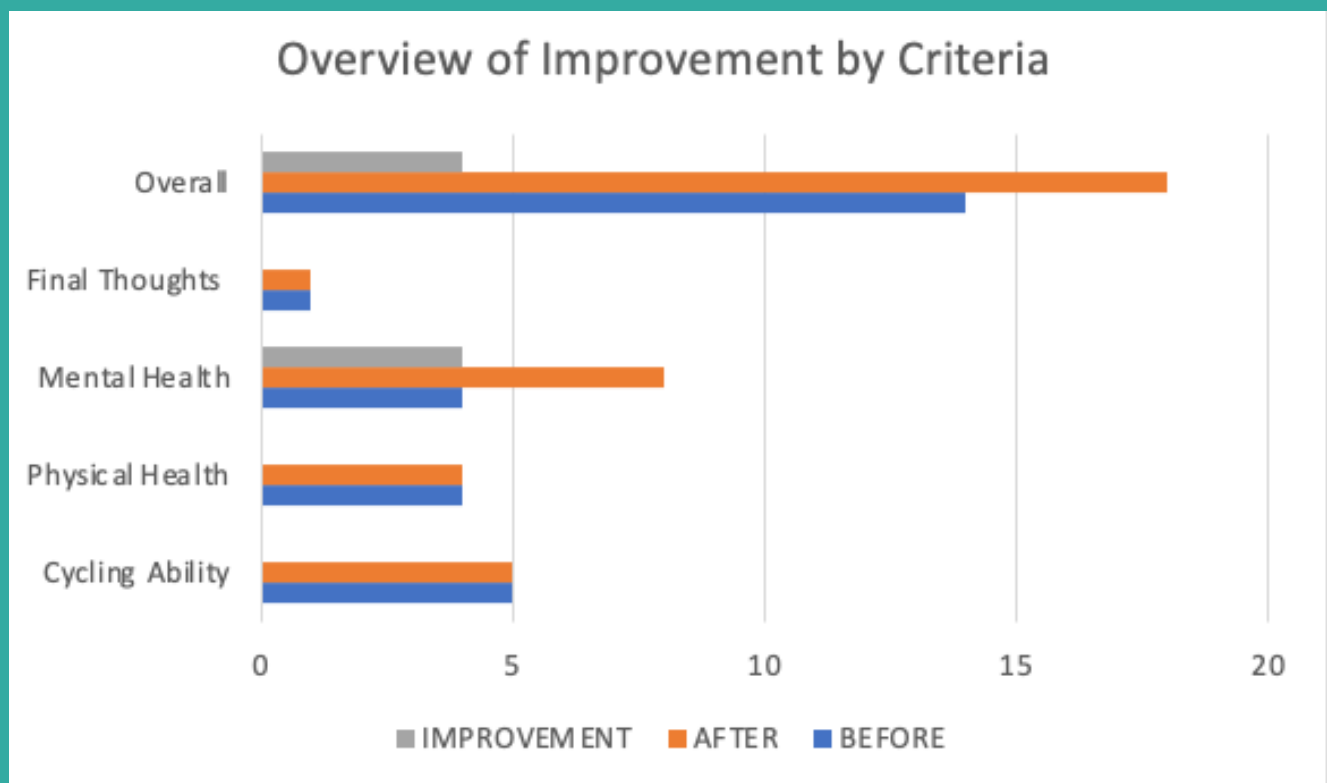


Fig. 12

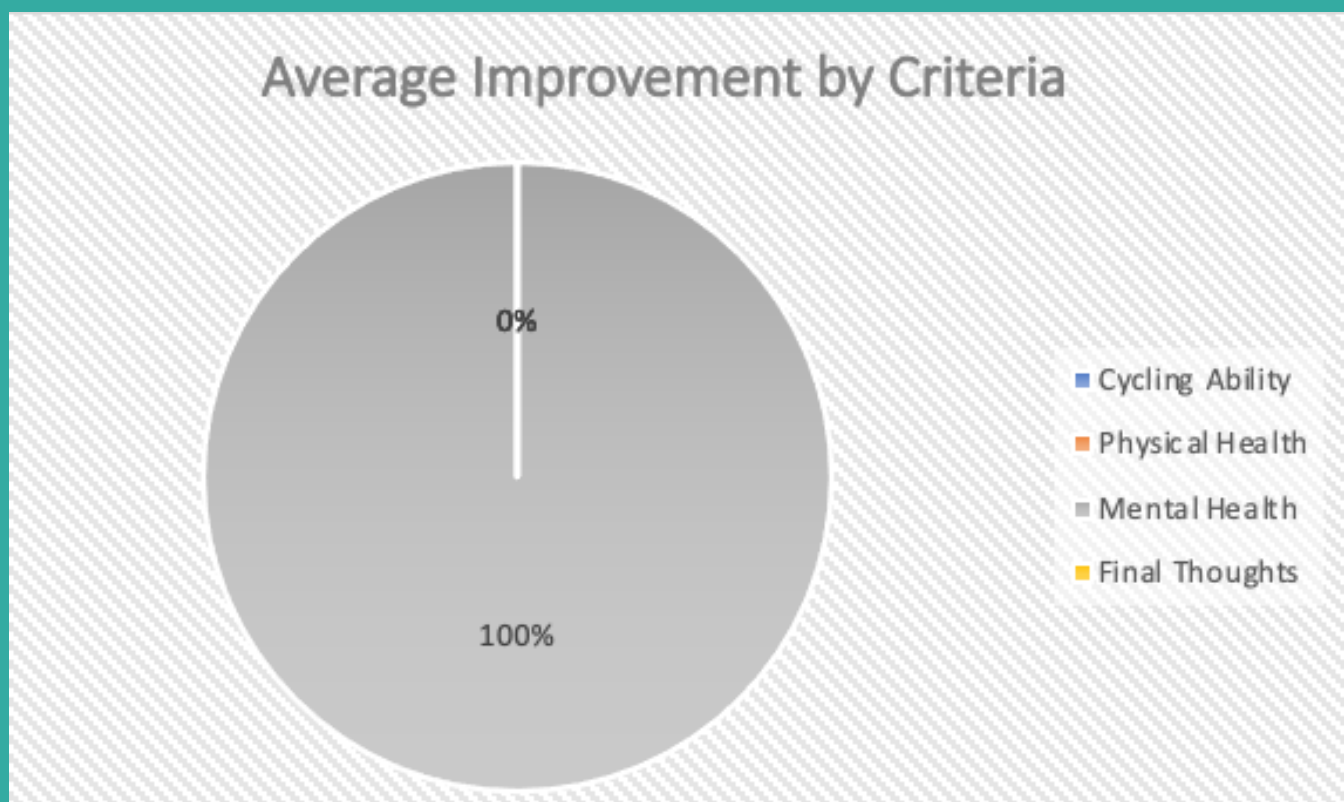


Fig. 13

As is evident in figures 12 and 13, IKM felt competent physically, and in terms of their ability. However overall, there was a great improvement due to the impact that *Freewheel by Ride For Freedom* had on IKM's mental health. IKM's full answers to the survey can be viewed in appendix 3bl and 3bll.

Conclusion

This study demonstrates the impacts of the *Freewheel by Ride For Freedom* programme on the cycling ability, mental and physical health on the survivors of modern slavery. The hypothesis proposed an impact on the sense of transport independence and mobility that the participants had, giving them the ability to travel cheaper, and more independently.

The data collated clearly demonstrates an impact on the mental health of the participants, especially in terms of how they feel towards their transport independence and mobility, proving the hypothesis. Many of the participants were already competent at cycling, but still benefited from the programme by facilitating their ability and giving them a sense of transport independence. The participants also felt that their physical health improved marginally, which would certainly have also contributed towards a greater sense of mobility.

More specifically, the participants had very negative responses initially towards the question asking how they felt about their sense of transport independence. This was the biggest change amongst the questions as all participants responded positively after the programme took place. This underlined the real purpose of the programme which gave the survivors the facilities and confidence to have more transport independence and mobility.

Overall, the data showed that because of *Freewheel by Ride For Freedom* the survivors of modern slavery experienced improved the mental health as well as a sense of transport independence, and an improvement on their general health. The participants felt as though the programme gave them a sense of freedom and happiness by providing them with bikes, accessories, training, and support.

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