



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David



'An investigation into how software can support sports therapists and their clients'

By Adam Marc Thomas 225473. BSc (hons) Applied Computing.

1.Introduction

This project consists of the various topics surrounding sports therapy and importantly how it is applied in applications to see if it helps therapists.

This project will look at how applications will benefit the sports therapy industry, especially in the current pandemic where patients cannot go to see their therapists.

2. Aims & Objectives

Conduct a review into sports therapy and surrounding areas:

1. Injuries & preventions
2. Recovery
3. Current apps available
4. Design an app
5. Develop an app

3. The Findings

The most common injuries were split between muscular and joint. Muscular injuries were identified as hamstring and adductor. Joint injuries were identified as knee cartilage damage, ACL and rotator cuff. A number of different injury treatments were found, with a range of differences. Injury Preventions were identified as weight training, warmups, mobility and flexibility. It was found that Java was the best language to write the application as it is more popular with mobile applications.

Technology does support therapists and their clients and a 100% of the Next Steps clients said that they will continue using the application as it aids them and makes the therapists job easier.

The participants of the questionnaire would much prefer to book via the application rather than the phoning up the therapists as the app is available 24/7 but the therapist is not.

4. Testing

Unit Testing: This method aims to test the individual components of the application. To do this, each unit of code was tested against their expected result.

System Testing: This method tests the finished app to see if it met the requirements and against the evaluation criteria.

Usability Testing: This method was used to test the functionality of the app by observing real users and they attempt to complete tasks. The app was given to different users and the feedback given was used to make the app more efficient.

Acceptance Testing: This method was used to test and 'accept' the app before it went live. This was evaluated against the requirements and then an interview was setup with the client.

5. Conclusion

It was found that software applications support sports therapists and their clients as they can focus more on treating the clients, rather than creating bookings.

There was a need for a sports therapist application especially through the pandemic as clients could not see their therapists.

The app was developed and accepted by the client that solved their problem via a final interview. The client was happy with the final application, meaning that the testing was successful.

The aims and objectives were met that were set out at the start of the project meaning that nothing was missed out, leading to a successful development of the application.

The primary research was backed up by the literature review and the treatments that were found were helpful for Next Step's clients.

The current applications found were all generic and a bespoke application was needed.

It is vital that ethical issues are researched before developing a medical application.

