

Appraisal

Media: Home exercise programs made effortless using the PhysioTherapy eXercises patient app

PhysioTherapy eXercises website: www.physiotherapyexercises.com

PhysioTherapy eXercises is a publicly available website, created by Harvey, Messenger, Glinsky, Pattie and a collaboration of physiotherapists. It was designed as a resource for creating and distributing home exercise programs. The website has a database of images, videos and instructions for over 1000 exercises focusing on impairments (strength, balance, range of motion, and cardiovascular fitness), and activities (reaching and manipulation, sit to stand, transfers, and mobility), and is available in 13 different languages. The exercises are evidence-based and include exercises for children through to the elderly, as well as exercises targeting specific populations, such as acute and degenerative neurological conditions, and musculoskeletal conditions, including whiplash and hand injuries. The *Physiotherapy Exercises App* is one feature of this web-based software and is the focus of this review.

The *Physiotherapy Exercises App* is free and can be used on both Apple and Android tablets and phones. The app is designed for

patients to use, and allows them to access their prescribed home exercise program on their devices, record their progress online, and share this information remotely with their therapist. A recent randomised, controlled trial reported that using the *Physiotherapy Exercises App* increased adherence to home exercise programs when compared with paper-based methods.¹

The therapist designs a home exercise program by selecting relevant exercises from the database and scheduling the frequency and duration of the exercises using the PhysioTherapy eXercises website. The patient then accesses and installs the *Physiotherapy Exercises App* via a link embedded in an email or smart phone text message that is sent from the website. Once the app is installed, patients have direct access to their home exercise program. The app allows patients to view their program, record completion of each exercise, and provide feedback to the therapist via a 'notes' function. The therapist has the ability to remotely monitor the patient's exercise adherence, review notes recorded by the patient, and adjust the program as required by logging onto the website.

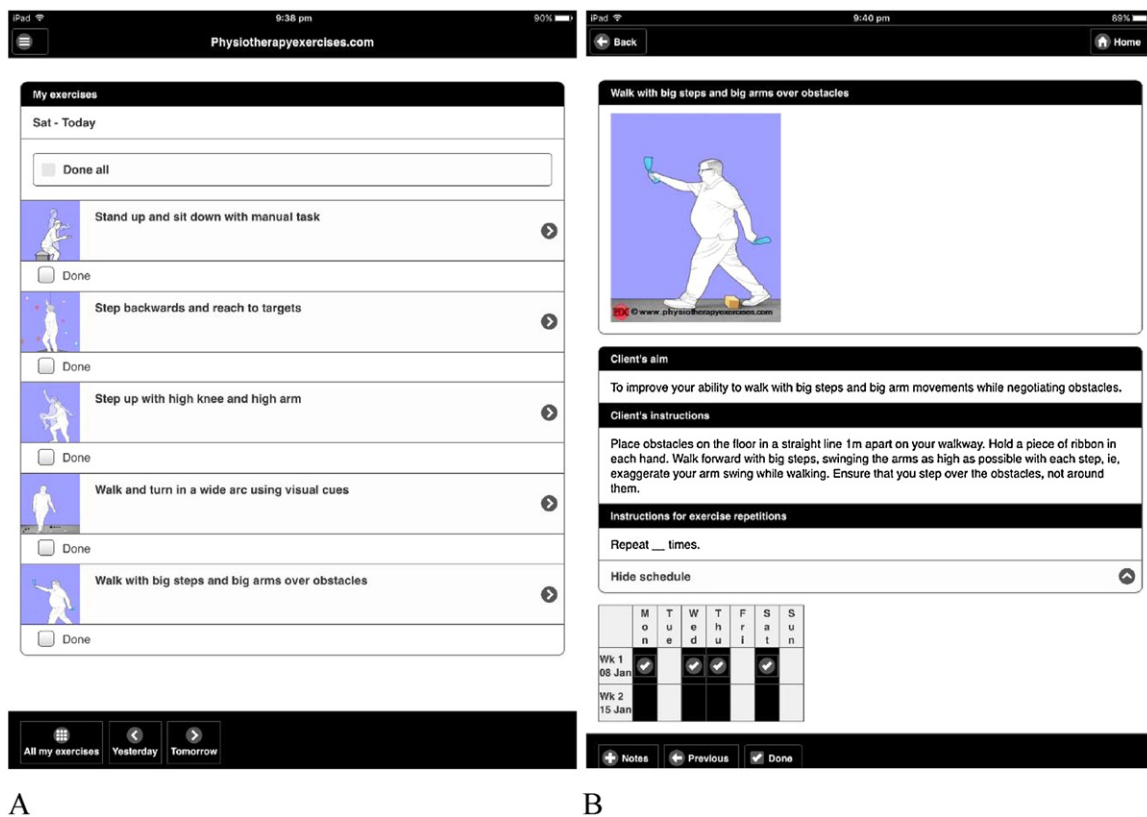


Figure 1. A. Example of the home screen of an exercise program on the *Physiotherapy Exercises App*. B. Example of an individual exercise screen, including illustration, patient's aims, patient's instructions, instructions for repetitions and the exercise schedule. The black boxes indicate the days the exercise has been scheduled, and ticks indicate that the patient has completed those exercises on that day.

Therapists can also receive a notification via an email when a patient's adherence has decreased below a set threshold, which can be adjusted by the therapist for each patient.

Ease of use

Overall, the design of the *Physiotherapy Exercises App* is straightforward and the basic features are easy to use. My experience suggests that patients who already use the Internet and/or mobile devices are willing to use the *Physiotherapy Exercises App*, and use it successfully. Patients with limited technology experience are able to use the app successfully if provided with assistance to download the app and are given a demonstration of how to use it. Once the app has been downloaded, patients have two options: view the exercises that are to be completed on that day via the home screen (Figure 1A); or touch the screen to access the illustration, aims, instructions and dosage for each exercise (Figure 1B). Similarly, recording of the completed exercises can be done by ticking the 'done all' box on the home screen or ticking a box on each screen for an individual exercise. Patients can record completing an exercise even if it is not scheduled for a particular day. Notes can be added on each screen that details an individual exercise.

From the perspective of therapist use, the home exercise program is prescribed and monitored by logging directly onto the website. The website has an extensive help section to assist the therapist if required.

Strengths and limitations

The *Physiotherapy Exercises App* is very well designed for clinical use. One of the key strengths is that patients can only access their home exercise program once it has been prescribed to them by a therapist, which ensures that patients complete exercises appropriate for their rehabilitation. Another valuable feature is that once the *Physiotherapy Exercises App* has been downloaded, there is no requirement for the patient to login or remember passwords. Other strengths are that the interface is easy to understand, and patients receive detailed information about each exercise, including the aims of the exercise, illustrations, instructions on how to complete the exercise, dosage, precautions, and progressions. Furthermore, therapists have the ability to select what information the patient

views on the app and/or modify the instructions and information if required. When the home exercise program is updated online, all changes occur in real time.

Limitations of the *Physiotherapy Exercises App* are that few patients use all the features of the app, for example the notes function. My experience using the app with people who have Parkinson's disease is that most people primarily use the app to view and record completion of their home exercise programs. Further encouragement by the therapist is necessary to ensure regular use of the notes function, if desired. At present, patients do not receive an alert via the *Physiotherapy Exercises App* that their program has been updated; it simply changes on the home screen. Consequently, if the program is updated independently of a consultation, an additional form of communication may be required to inform the patient of changes made.

Conclusion

Overall, the *Physiotherapy Exercises App* is an excellent and easy to use clinical resource. Increasing the use of devices to provide home exercise programs directly to patients is highly desirable and resource-efficient. It gives patients access to their home exercise program at all times, facilitates self-management, and, importantly, increases communication between the patient and therapist. The advantages of the *Physiotherapy Exercises App* are that it is freely available, has an extensive range of exercises covering both musculoskeletal and neurological conditions, and is easy to use for both therapist and patient. Combined with the ability to remotely monitor patients' adherence to the home exercise program, the *Physiotherapy Exercises App* has been a valuable addition to my clinical practice and role as a clinical educator.

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Reference

1. Lambert T, et al. *J Physiother*. 2017;63:161–167.