











# PROCEEDING ICSDP 2022



## THE INTERNATIONAL CONFERENCE OF SPORT FOR DEVELOPMENT & PEACE

### DRY-LAND TRAINING PROGRAM DURING COVID-19 PANDEMIC

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## **Abstract**

The COVID-19 pandemic has had a huge impact on human life. Starting in terms of economy, education, restrictions on social activities and sports. Sports facilities such as swimming pools are temporarily closed so that swimming athletes cannot exercise in the pool. This article will discuss dryland exercises that can be done during the COVID-19 pandemic independently to support the technique and physical condition of athletes.

Keywords:

Dry land, Swimming, Covid-19

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## Introduction

The Indonesian government has implemented the rules for the Implementation of Restrictions on Community Activities (PPKM) as stated in the Instruction of the Minister of Home Affairs Number 1 of 2021 to prevent the transmission of the Covid-19 virus. With this regulation, Indonesian people carry out various activities at home, such as work and school. In addition, public facilities are also closed, including sports facilities such as swimming pools.

The impact of the closing of the swimming pool is very influential on swimming athletes, because they become unable to practice as usual. Swimming is a sport that is carried out in water by performing certain movements or styles including the butterfly, backstroke, breaststroke and freestyle(Abdul Narlan, 2020).

In the condition of the COVID-19 pandemic where there are no swimming pool facilities that can be used for training, the coach must find a way so that the athletes can maintain their physical and technical condition so that they do not decline. To perform an efficient swimming movement requires technical skills, coordination, and good physical condition (Flynn et al., 2017). Dryland training is a ground exercise used to improve swimmer performance. according to (Popovici & Suciu, 2013) training on land can increase the propulsion ability in the water, resulting in maximum glide when swimming. Exercise is a process of improving the ability to exercise which contains theoretical and practical material, using methods, and implementing rules with a scientific approach, using planned and regular educational principles, so that the training objectives can be achieved on time.

There are various different types of dryland exercises can give birth to new findings and can encourage efforts to understand and broaden knowledge about dryland exercise













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programs that are carried out as needed. In short, in writing this article, it is seen from the point of view of previous research which is taken into account by new evidence or findings that can be seen from various factors in the dryland exercise program.

By using a qualitative method, which is descriptive analytic (literature review) provides perceptions for the experience for athletes and coaches to learn more about certain conditions that affect dryland training on swimming performance. Basically, we can gain valuable insight into how to create a suitable dryland exercise program. Thus, the overall purpose of this qualitative study is to provide new knowledge and understanding of the dryland exercise program that was reviewed in previous research so that it becomes an article that can provide benefits for readers and writers, especially in swimming.

## Methods

A review through a review of articles on dryland exercise programs that can be done independently during the covid-19 pandemic. The article review criteria used are dryland exercise programs that can support improving technique and physical condition. Exclusion criteria are abstract articles, articles that do not use English and articles that are displayed but not full text. Article search is limited only to articles in English which are accessed from internet searches from the database, namely: Tandfonline, SagePub, Sciencedirect, Human Kinetics, Springer, and Google.

### Procedure

The literature study technique is carried out by researchers by visiting several online sites to collect sources, read, analyze various written sources, such as books, journals and articles from both print and online media related to the problems studied, so as to assist researchers in finding answers to the problems that have been formulated. But in his discovery, the researcher only obtained relevant books, journals and online media articles.

## Data Analysis

In this research, the data analysis technique used is qualitative technique. Qualitative research is descriptive analytic. The data obtained such as research results, compiled by researchers in a journal, are not stated in the form and numbers. This technique was chosen by researchers to produce qualitative data, namely data that cannot be categorized statistically. In the use of qualitative analysis, the interpretation of what is stated and the final conclusion is drawn using logic or systematic reasoning.

## Result

## KSS Program

KSS Program or Kick, stroke and Swim is an exercise program dryland which has the potential to offer an alternative in training and improving swimming technique skills (Flynn et al., 2017). This program has been running in various states in America. Implement the SSC program as part of the dryland training program to practice swimming technique skills that can be done independently. In addition, the SSC program provides an opportunity for swimmers to practice breathless skills and buoyancy challenges that affect initial performance. In the SSC program, swimmers develop a level of comfort by performing swimming movements that are practiced on a physio ball.













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Another advantage is more practice time with stroke refinement. Additional training tasks may be used to include: breathing as part of the stroke mechanics, which will be an opportunity to improve performance technique. In this attitude, students can see, feel, and hear certain instructions.

Knowledge of swimming skills and how to improve good technique is packaged in light but rewarding activities. The SSC program is a practical and sensible way to provide easy access to swimming skills. The program has been implemented in a variety of physical education settings, private swimming programs and college-level aquatics courses in America. Although additional studies are needed to further explore the short- and long-term effects that SSC programs can have on accelerated stroke development, many physical education teachers in several states have identified better outcomes in skills acquisition. Dryland exercises allow the coach or instructor to provide specific and immediate feedback in the form of corrections.

## Dryland Strength and Conditioning

Dryland for swimming is critical to a swimmer's development. It challenges the athlete to execute new movement patterns under a greater load than in the pool. Athletes tap into new sources of power and speed on land, translating to greater performances in the water. Swimmers should focus on core strengthening exercises as well as exercises that target large muscle groups. Dryland training helps improve balance, alignment, posture and muscle coordination, which translates to all-around better technique in the pool.

Dryland Strength and conditioning are activities carried out on land with the aim of increasing strength, flexibility, and overall physical mobility. It includes a number of different moves and exercises ranging from beginner to advanced skill levels. Dryland Strength and conditioning aims to help swimmers excel and to prevent musculoskeletal injuries, which occur in sports (Paul et al., 2014).

In app MySwimPro There is a dryland training program strength and conditioning with forms of exercise such as burpees, alternating jump lunge, leg lifts and plank progression where each movement is performed 10 times with 5 sets and rest 30-60 seconds between each set. This exercise routine is best for swimmers who want to improve their swimming practice and activate their entire body before swimming practice.

In Indonesia alone practice dryland strength and conditioning applied to athletes of the Indonesian swimming training team at the beginning of the covid-19 pandemic. At that time, the GBK Aquatic Stadium swimming pool, which was the training centre for the Indonesian swimming training team, was temporarily closed.

## Benefits of dryland exercise

Dryland training helps swimmers improve their general level of fitness. Dryland exercises can be done with little or no equipment(Cuenca-Fernández et al., 2020). This can make it easier for athletes to do exercises independently at home.

Dryland exercises for maximum speed with the large muscle groups in the back and shoulders, used to pull or propel the swimmer in the water, and the leg muscles used in kicks to add speed and stability to the stroke. These exercises also work the core muscles, important for maintaining proper position in the water (Marshall J, 2021). In addition, dryland training can also prevent athletes from getting injured (Morais et al., 2016).













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## Discussion

In this qualitative study, which shows that dryland exercise can be an alternative to technical training, coordination and physical condition of swimming athletes during the COVID-19 pandemic. Dryland exercises to train technique can be done by doing a KSS program that focuses on developing swimming movement technique skills. Meanwhile, to train physical condition, it can be done by cardiovascular exercise, dryland strength and conditioning exercise and dryland circuit exercise. The coach or instructor can implement several of these training programs based on the needs of each athlete.

## Conclusion

This article explains that the dryland exercise program can be an alternative to maintain and improve the technical skills, coordination and physical condition of athletes during the covid-19 pandemic. Coaches can monitor their athletes' training process online or online through a wide selection of existing applications, such as zoom meetings, google meet or others, can also be offline or face to face in one place while still implementing health protocols.

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