

Original Article

Outdoor sports and physical activity during social distancing by sports sciences and exercise course students at the University of Salerno

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Abstract

Problem Statement. One of the major current problems in the motor and sports field concerns the impact of the COVID-19 epidemic on the economy of fitness and sports centers, which risk a permanent closure due to the prolonged blocking of activities. For a future restart, it is necessary to find adaptive and / or compensatory strategies, such as outdoor activities. **Purpose.** The study investigates some elements of current motor practice and the possibility of organizing / participating in outdoor fitness classes. The utility is to summarize the state of the art, even if currently dynamic, to hypothesize a new adaptive and / or compensatory strategy for the possible change in current lifestyles. **Methods.** The sample is made up of 224 motor science students from the University of Salerno because they are future experts and, in the abstract, interpreters of a healthy and active lifestyle tending to performance. A structured questionnaire was prepared with Google Forms and emailed to students. Data were analyzed using cluster analysis and descriptive statistics, to calculate the variables expressed as a percentage. **Results.** The second lockdown did not stop the practice of physical activity (78.6%) in motor science students. 57.6% declared that they practiced outdoor motor activities, individually (60.16%), on the street (55.47%), without a mask (71.09%) and maintaining social distancing (97.66%). The majority (94.64%) have never practiced or organized outdoor fitness classes; however, 64.3% in the future are willing to plan / take part in outdoor fitness classes. An obstacle could be represented by the lack of spaces or paths, as stated by 74.11%. **Conclusions.** From the result of the study, an evolving phenomenon emerges preliminarily which, at times, compensates for the current emergency state and, proactively, can be adaptive. Given the local nature of the data, it can be used for the establishment and new training in motor sciences, called Sport, Exercise and Wellness Management.

Keywords: lockdown, management, gym, motor science, outdoor, health.

Introduction

The worldwide COVID-19 pandemic has caused a sudden lockdown around the world, resulting in social isolation, to prevent the spread of this new infectious disease. With the second wave, the whole of Europe was cornered, in a desperate attempt to stem the contagion. In Italy, the sport and fitness sector, while creating a significant economic impact, was once again penalized by government measures after the blockade in March. After three months of forced closure due to the health emergency, the gyms had reopened with the obligation to adopt new safety measures, such as the purchase of sanitizers, masks, plexiglass, limited bookings, which however, were not enough to avoid a new closure. All this has forced instructors and sportsmen to abandon the practice of training in the gym. During the first lockdown the practice of physical activity had evolved, giving life to the phenomenon of smart-fitness, thanks to the spirit of initiative of instructors of various disciplines, who proposed to offer free lessons to the people, by using of social networks.

According to a survey (Raiola, G et al., 2020) the fitness revolution has affected many people, but only temporarily, dictated by necessity: despite having accompanied athletes for two months, the latter always prefer training in gym. The gym is often an environment in which the internal community motivates itself to exercise and stay healthy (Raiola, 2019; Di Tore et al., 2018, D'Isanto, 2016); in fact, many people find it difficult to find the drive and enthusiasm to start exercising (Yanguas et al., 2020). This is reduced to a gym, where everyone has to start somewhere and the atmosphere can push people to work harder, with instructors ready to support everyone on their journey. Gyms are not only places where people go to exercise, but also often serve as a mental health support group (D'elia, 2019; Invernizzi et al., 2020) and can be an important social outlet (Russo et al., 2019; Valentini et al., 2019). This can provide a lifeline for people who live isolated lives or don't have a good support system (Pisano et al., 2019). Subsequently, with the reopening of the gyms at the end of May and the gradual resumption of activities in the summer, there were strong discrepancies between the present, struggling with the pandemic and the normality of the past. An interview (Puggioni, 2020) with the ANIF president revealed that various Italian plants failed to reopen in June, especially the indoor activities. "The specialized fitness centers saw on average 60% fewer members than normal. It went better for multipurpose

facilities that deal with outdoor sports. In this case the loss was about 30/35% of the regulars". This is because people feel safer in practicing outdoor activities. Finally in October, with the second wave of infections and with the new rules dictated by the Dpcm, which prohibits motor activity in closed places, and the subdivision of Italy into emergency zones, with a traffic light that goes from yellow to red, to stem the spread of the epidemic, the population was forced, for the second time, to adapt to physical and motor activity. The only activity allowed is outdoor physical activity: in a group if you are in an area with a low risk of infection, and individually, if you are in an area with severe restrictions.

One of the major current problems concerns the impact of the Covid-19 epidemic on the economy of fitness and sports centers, which risk a permanent closure due to the prolonged blocking of activities. For a future restart it is necessary to find adaptive and / or compensatory strategies (D'Isanto et al., 2019), such as outdoor activities. Already during the first lockdown, outdoor fitness classes were practiced to make the training of athletes safer in some countries. And it seems that customers prefer it over online training, as the latter does not replicate the experience of real life (D'Elia et al., 2019). Outdoor lessons are considered more beneficial and safer (D'Isanto et al., 2017); moreover, they could be a revenue stream for gyms and sports centers that will not be able to reopen in the future due to high expenses. Outdoor activity could become a new lifestyle to be adopted for both children and adults. The outdoor lessons, thanks to the wealth of sensory stimuli coming from external environments, create innumerable advantages for psychophysical and social growth. It can be an important development factor for gyms and sports clubs, especially in this period where physical distance is essential and there is a need for large spaces to ensure safety. Only an outdoor space and an instructor with a degree in physical education are required. Gazebo, tents, parks and pedestrian areas could represent the outdoor space. The sports science expert, on the other hand, should be able to devise outdoor education projects, which concern all the educational activities that can be carried out outdoors and propose them in their own institutes, gyms and sports centers. You need the ability to know how to work in a team, to involve the same colleagues, to be able to deal with logistical and organizational problems, in order to make projects feasible. It is therefore not just a proposal to stop the emergency, but it is an ambition aimed at acquiring healthy habits of life, which include the practice of physical activity, socialization and respect for the natural environment.

The usefulness of the study is to summarize the state of the art, even if currently dynamic, to hypothesize a new adaptive and / or compensatory strategy for the possible change in lifestyles due to the prolonged closure of indoor gyms. The specific objectives are, to investigate:

- The impact of the second lockdown on physical, motor and performance practice in students;
- The practice of outdoor physical activity with respect to current safety standards;
- The experience and intention of the students in organizing outdoor fitness classes;
- The perception of the benefits of outdoor activity and the importance of motor activity towards COVID-19.

Exercise science students, with closed gyms and remote teaching, inevitably spend a lot of time at home. The goal is to find out if they have continued to train or have stopped, if they have tried to train outdoors, the training methods and if they find this practice better than indoors. Another fundamental aspect is to know if they have ever had experience with outdoor fitness classes and if in the future they would be willing to organize or follow them. Since one of their tasks is the promotion of physical activity and sports, they could make a valid contribution to gyms that must find a way to recover from the pandemic.

Materials and methods

A cognitive investigation was adopted in this study. The aim is to investigate whether outdoor training can be a new adaptive and / or compensatory strategy for the possible change in current lifestyles, with the help of motor science students.

Participants. The participants are motor science students from the University of Salerno because they are future experts and, in the abstract, interpreters of a healthy and active lifestyle tending to performance.

Instruments. A structured questionnaire was prepared with Google Forms and emailed to students from three-year degree and master's courses. The questionnaire includes:

- Demographic data;
- Data on the consequences of the lockdown on the practice of physical activity, in particular if COVID-19 has stopped the athletes and if they have more free time to devote to physical activity;
- Data on the practice of outdoor physical activity and safety regulations, in particular, the goal is to know if students have practiced outdoor activities during the pandemic, the type of activity carried out, the use of the mask, the maintenance of social distancing;
- Data on the experience and availability of students in organizing outdoor fitness classes;
- Data on the perception of the benefits of outdoor activities and the importance of physical activity against COVID-19.

Out of 1,051 questionnaires sent, 224 students of motor science from the three-year degree (54.9%) and master's (45.1%) courses responded with an average age of 22 years.

Statistical Analysis. Data were analyzed using cluster analysis and descriptive statistics, to calculate the variables expressed as a percentage.

Results

Almost all students (90.6%) come from Campania. Before the gyms closed, 87.1% practiced physical and motor activity. With the closure of the gyms, 42.0% have reduced their workouts, 36.6% have maintained / intensified their workouts, and the rest are inactive. 54.5% currently said they have more free time to devote to physical and motor activity. Currently 57.6% said they practice outdoor physical activity with a frequency of 3/4 times a week (45.31%). 52.7% think that it is no safer to practice outdoor activities than indoor.

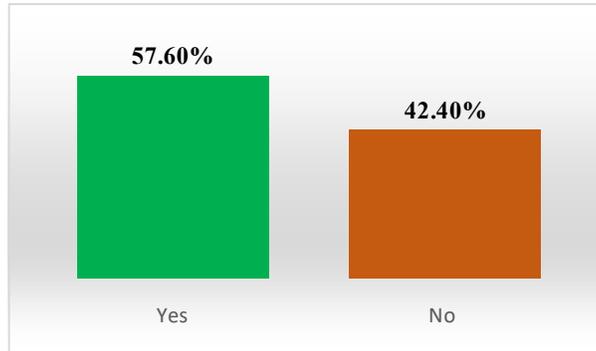


Figure 1 This graph shows us that 57.60% are practicing outdoor motor activity

The type of training carried out is aerobic activity (50.00%), followed by both aerobic and anaerobic activity (47.66%). Most (60.16%) practice activities individually on the street (55.47%), while only a small percentage in parks (25.78%) or in the mountains (17.97%). With regard to safety, 71.09% during the activity do not use the mask and maintain the social distancing (97.66%) with other athletes. Almost none of the participants (94.64%) organized or participated in outdoor fitness classes.

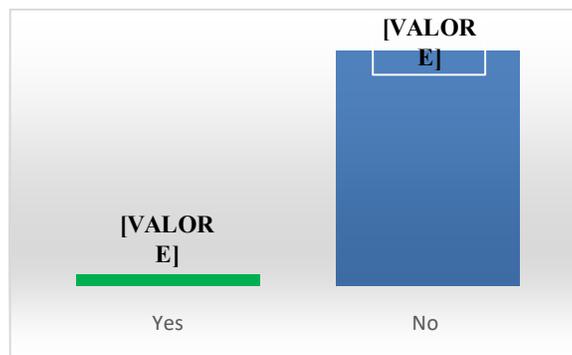


Figure 2 This graph shows that 94.64% have never attended or organized outdoor fitness classes

The majority (64.3%) are willing to organize or take part in outdoor fitness classes in the future.

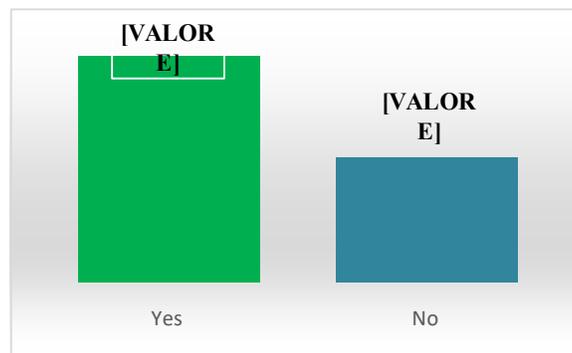


Figure 3 This graph shows that 64.30% are willing to organize or participate in outdoor fitness classes in the future

The majority (74.11%) stated that there are no spaces or pedestrian paths in their country dedicated to outdoor activities.

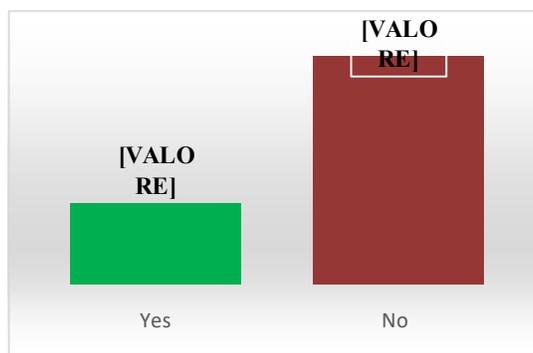


Figure1 This graph shows that 74.10 % claim that there are no spaces or pedestrian paths to be able to practice outdoor physical activity in their area

Outdoor exercise is considered more beneficial, as stated by 72.32% of students, than indoor activity. Finally, it was asked whether, according to the students, the practice of physical activity could have beneficial effects against COVID 19. From a scale of one (not at all) to five (a lot), the average response was 3.8.

Discussion

The second lockdown did not stop motor science students, who adapted to the new situation, practicing physical activity both indoors and outdoors. Before the gyms closed, 87.1% practiced physical and motor activity; 42.0% subsequently decreased their workouts, while 36.6% maintained / intensified their workouts. This could be because many students (54.5%) said they have more time available to devote to physical activity, since they do not have to travel to go to the university or other facilities. More than half (57.6%) said they practice outdoor physical activity (as shown in figure 1) with a frequency of 3/4 times a week (45.31%). The rest of the active people train at home with their home gym or following online courses. The type of training carried out is aerobic activity (50.00%), followed by both aerobic and anaerobic activity (47.66%). It is important to practice both aerobic activity and muscle strengthening, as well as stretching exercises, for better immune function (Esposito et al., 2019). Regular physical activity can also help reduce the feeling of stress and anxiety that many may feel due to the pandemic (WHO). With regard to safety, 71.09% during the activity do not use the mask, but maintain the social distancing (97.66%) with other athletes. Masks are now in demand outside the home and are a good idea to minimize the risks; however, if you keep enough distance from others, you can lower the mask to breathe easier during training. Most (60.16%) practice activities individually on the street (55.47%), while only a small percentage in parks (25.78%) or in the mountains (17.97%). Physical activity on the street, in reality, could do more harm than good. It is always recommended to run in isolated and unpolluted places. In this particular period, then, it is even more worthwhile to practice physical activity in less frequented places, in parks or in the countryside.

Exercise in the open air is considered more beneficial, as stated by 72.32% of students, than indoor activity. Those who claim the opposite could be represented by technicians, instructors and entrepreneurs to defend their work in the gym. In fact, training in the open air brings many benefits (Di Domenico et al., 2019; Sgrò et al., 2018) such as: an improvement in cardiovascular functions (Altavilla et al., 2018), better breathing and facilitation of the exchange of oxygen, greater motivation and stimulation, production of vitamin D, with curative and preventive effects on many diseases of the skeletal system (S. Aliberti et al., 2020), not to mention that 20% more calories are burned. Practicing outdoor gymnastics is also related to a better perception of one's health and a better quality of life (Raiola, 2015; Severino et al., 2019). Finally, being in a natural environment positively influences the aptitude for learning and some cognitive aspects (D'Elia et al., 2018) such as attention, memory and problem solving skills (Raiola, 2014). The majority (74.11%) of students stated that there are no spaces or pedestrian paths in their country dedicated to outdoor activities (as shown in Figure 4). An article (Sabella, 2020), based on a research by Openpolis, which analyzes ISTAT data, has shown that in the south, there are very few spaces available: Naples is among the capitals that record the worst numbers, together with other centers in the south. It may also be for this reason that, in Campania, fewer than four out of ten children carry out motor activities continuously. In 10% of cases, the reason is due to the lack of sports facilities and areas. 52.7% think that it is no safer to practice outdoor activities than indoor. In fact, even though the process is currently dynamic, health experts agree that outdoor fitness classes are much safer than indoor ones because they allow for better airflow and ventilation.

Furthermore, safety could also depend on the type of activity carried out. A study (Jang et al., 2020) has shown that high intensity indoor activity exposes you to a greater risk of contagion, compared to low intensity activities, such as yoga. It is therefore advisable to minimize intense physical activity in confined spaces during epidemics. Between the two, undoubtedly, outdoor activity has more beneficial effects, if carried out in a healthy environment. Almost all 94.64% have never organized or participated in outdoor fitness classes (as shown in Figure 2). Outdoor physical activity could be an excellent strategy to be adopted by gyms for a gradual recovery

towards normality. There are testimonies according to which various instructors have thought of setting up an outdoor gym, but unfortunately, the spaces available are very few. The majority (64.3%) in the future are willing to want to organize or take part in outdoor fitness classes (as shown in Figure 3). This data is very positive, because it could represent the realization of a possible future scenario in which gyms and sports centers will be able to continue working, also guaranteeing more safety for the population. Last, but not least, is the personal consideration of physical and motor activity as an important means of trying to combat the COVID-19 disease. From a score of one, not at all, to five, a lot, the average response was 3.8. There is therefore the perception that physical activity can help improve the well-being of the population (Altavilla et al., 2015; Sgrò et al., 2017). Exercise and physical activity are important tools for maintaining physical and mental well-being during the pandemic.

Conclusion

The study results reveal an evolving phenomenon that, at times, compensates for the current state of emergency and, in a proactive way, can be adaptive. Most of the students, with the closure of the gyms, decided to practice outdoor activities individually, mainly aerobics and keep the distance to avoid wearing the mask. They are aware that outdoor exercise brings greater benefits than indoor and that it could be a tool for preventing COVID-19. The problem is represented by the training place, that is the city streets, polluted by the continuous passage of cars. This is due to the lack of parks or pedestrian spaces in Campania for motor activity. Another interesting result is represented by the intention, on the part of the translation of the students, in wanting to organize outdoor group fitness classes, despite never having had experience in the field.

This idea is also very interesting from a sports entrepreneurial point of view, because it could actually open a market scenario for outdoor fitness. Given the local nature of the data, they can be used for creation and new training in exercise science. With deeper analysis and more refined processing, it will help determine social policies as the centerpiece of the master's degree in Sport, Exercise and Wellness Management. The figure of the sports manager has precisely the task of dealing with the planning and management of projects in the field of motor and sports activities, also relating to local and national institutions, and the theme of physical activity to promote social well-being could be one of the key topics to be explored during the degree program. Once again the problem could be represented by the lack of public spaces dedicated to outdoor physical activity, and therefore one should try to collaborate with local authorities to find potential public spaces, in order to transform for collective use. Only in this way will interest in outdoor sports be increased.

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