

## Participation in the National Fitness 100 Project and Efficient Operation Plans during the Covid-19 Pandemic

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**Abstract:** This study investigates both the impact of participation in the National Fitness 100 project, a National Sports Promotion Act of Korea policy, and plans for implementing operational efficiencies. It highlights the significance of the project and provides information to help people at home and abroad live healthy lives by improving their fitness. The research participants were three exercise therapists and one physical-fitness tester, selected from regional physical-fitness centers in four South Korean cities (C, D, J, N), as well as four people who have participated in National Fitness 100 every year since 2017. In-depth interview data were collected and analyzed in depth through an inductive category analysis. The first impact of participation in National Fitness 100 was participant satisfaction with sports programs accessed through free fitness tests and personalized exercise prescriptions; these were recognized as a state-supported sports-welfare service. Second, the state-approved fitness certificate issued for each fitness-certification stage gave participants pride and a sense of challenge, motivating them to continue to engage with National Fitness 100. To ensure that National Fitness 100 operates efficiently, it is essential, first, to develop certificates that evaluate and recognize the individual goals achieved by participants. Second, the recently introduced Sports Activity Certification service should improve participation through active promotion and compensation systems, based on records of sports-activity performance. Third, health, nutrition, hygiene, and fitness must be integrated through governance activation to enable collaboration and improvement among disadvantaged groups and regions. Finally, it is expected that this study will provide information and practice to improve health and fitness, which have been impeded by the spread of COVID-19 worldwide.

**Keywords:** National Fitness 100, fitness-certification system, fitness-certification-center, sports activity certification, COVID-19

### 1. Introduction

Physical training in South Korea has undergone various changes, due to government policies, since the National Sports Promotion Act was enacted in 1962. Launching professional baseball in the 1980s, hosting the 1986 Asian Games, and hosting the 1988 Seoul Olympics have paved the way for Korea's advancement in sports; these continue to underpin professional, daily, and school sports. Since establishing its 2030 Sports Vision, the government has emphasized that sports welfare is a right for citizens and a duty for the nation. Through sports clubs, efforts have been made to establish a sports system in which professional and everyday sports create a virtuous cycle [1]. In recent years, the public has focused on and participated in healthcare and sports activities to prepare for the era of longevity. Schools have also made great efforts to habitualize sports for a healthy life. The government has presented various policy directions designed to create the conditions for merging sports values with everyday life; it also promotes sports welfare through democratic governance [1].

As [2] have pointed out, the deterioration of public health, due to changing family types, and the emphasis on activities to promote health created demand for a management plan to promote health at the national level. Article 16, Clause 2 of the National Sports Promotion Act, which promotes a sound spirit and fitness for the nation, stresses that state and local governments should design policies that certify everyday sports activities and fitness [3] to encourage citizens to participate voluntarily in everyday sports while also supporting scientific fitness management. One such policy is "National Fitness 100." National Fitness 100 is a Ministry of Culture, Sports, and Tourism policy designed to improve public health through exercise, physical activity, and sports. It is operated by the Korea Sports Promotion Foundation through a national sports promotion fund [4]. National Fitness 100 began as a pilot project in 2011. This national sports-welfare service currently offers free fitness tests, exercise prescriptions, and fitness improvement classes for people aged 13 or older in 42 regions, covering 16 cities and 8 areas nationwide. The project is significant because it provides various sports-activity programs to prevent diseases, offers scientific fitness tests and indicators, and makes exercise and sports a part of everyday life [5].

It used to be said that fitness equals national strength. In other words, when people have good fitness levels, they can achieve a healthy society and nation. Given the recent emphasis and implementation of lifecycle-based health activities, along with school physical education, personal fitness has become the basic prerequisite for a happy life based on wellness. During the recent COVID-19 epidemic, the world has become psychologically and physically exhausted due to social distancing. Public fitness has decreased significantly, as activities have been restricted. In every country, people are demanding social responsibility and a culture centered on fitness. According to Korea's 2019 survey of public participation in sports [5], the daily sports participation rate (at least once a week for more than 30 minutes in a single exercise) rose sharply from 59.2% in 2017 and 62.2% in 2018 to 66.6% in 2019. The usage rate for national and local government scientific fitness management services also rose from 29.1% in 2018 to 37.4% in 2019 [6]. These figures demonstrate that people have recognized the need for physical activities to

ensure a healthy life and are putting that knowledge into practice. The Ministry of Culture, Sports, and Tourism has undertaken a bold expansion of the project, recognizing the importance and efficiency of National Fitness 100 and increasing the number of fitness-certification centers from 42 in 2019 to 53 in 2020. Similar overseas projects, including the U.S. President's Challenge and Germany's Sports Badge, have been ongoing for more than 50 and 100 years, respectively, by government and related agencies [4]. To meet the public interest in wellness and promote active participation, South Korea must find efficient ways to operate National Fitness 100 by analyzing the impact of participation in this project, which has been in place since 2011.

In the literature on National Fitness 100, studies by [7], [8] have revealed that more than 95% of subjects who participated in the project were satisfied, while the economic value experienced by members using the service is extremely high. [9] notes that the fitness-certification-center operating system has problems, including bias, a lack of advertising, and poor working conditions. The study recommends improving the facilities, systems, operation methods, and environment. [8] have argued that the project should be converted to a paid service to ensure its sustainability and expandability while also addressing the lack of advertising and poor working conditions. Research by [1] and [4] have discussed national health and fitness projects in the U.S., Germany, and Japan, exploring the causes and consequences of their long existence (50–100 years) and suggesting ways to incorporate their strengths into the South Korean system. Using studies of national-led health initiatives conducted abroad such as National Fitness 100, a multi-case study of the U.S. President's Challenge, analyzing various Challenge participants and presenting educational implications and operational efficiencies [10], has noted the importance of a national database developed through state-led fitness analyses and standardization studies.

Through prior research, this study sets out to examine the true impact of participation in National Fitness 100, which continues to attract new interest and participation. It discusses efficient operational measures intended to establish the project as a national sports-welfare policy to maintain and promote the health of all citizens. It is expected that this study will boost the impact of the project and promote efficient fitness management and participation in sports activities for individual health, thus helping to rebuild public health and fitness, which have been damaged by the pandemic. The following research questions have been chosen to achieve the objectives of this study:

First, what is the impact of participation in National Fitness 100?

Second, what are some efficient ways to operate the project?

## **2. Research Method**

### **2.1 Participants**

Before selecting participants for the project, the researcher visited three physical-fitness centers that run the project in the J area and investigated their operation status and methods in depth. To conduct research based on integrated information provided by experts and project participants, the researcher selected three exercise therapists and one physical-fitness tester from fitness centers in four cities (referred to here as C, D, J, and N). Four people with experience in the project since 2017 were selected as participants, using a purposeful sampling method. The researcher explained the purpose of the study and obtained the informed consent of all participants before proceeding. The participant characteristics are detailed in Table 1.

Table I. Participant Information

**2.2. Data Collection**

Number	Gender	Age	Role	Occupation	Characteristics
1	M	36	Expert	Exercisetherapist (C)	Since 2016, has been working as an exercise therapist at a fitness center in the C area; majored in psychology, receiving a Master's degree in physical education. Operates a program to enhance the reliability and validity of physical-fitness tests and the psychological stability of exercise-prescription programs.
2	F	32	Expert	Exercisetherapist (D)	Has been working as an exercise therapist at D region's fitness-certification center since 2016 and has developed and distributed with great interest customized exercise-prescription programs related to project as a master's degree holder in physical education.
3	F	41	Expert	Exercisetherapist (N)	Has been working as an exercise therapist at N region's fitness-certification center and majored in physiology as a master of physical education. Currently focusing on Sports Activity Certification, a recent project, and conducting research on efficient Sports Activity Certification.
4	F	37	Expert	Fitness tester (J)	Has been working at J region's fitness-certification center since 2016 and is in charge of measuring fitness within the project as a master's degree holder in physical education, guiding programs linked to PAPS by school and issuing fitness certificates.
5	F	18	Citizen	Student (A)	Participated in the fitness-certification system for three years from 2017 to 2019 under the project and continued to implement customized programs based on exercise prescriptions. Steadily participated in the customized program since 2017 and obtained the 2nd grade certificate in 2019.
6	M	40	Citizen	Self-employed (B)	Participated in the project every three months since 2018 and has steadily implemented programs based on exercise prescriptions. Obtained the certificate of grade 3 in 2018 and earned the certificate of grade 1 in 2019.
7	F	53	Citizen	Office worker (C)	Participated in the project in 2016. Fitness test showed poor fitness, so tried to participate in the program based on the exercise-prescription; always busy with work and is not able to put into practice despite willingness.
8	M	68	Citizen	Retired (D)	First participated in the project in 2017 and obtained a first-class physical-fitness certificate for adults; currently actively participating in the Sports Activity Certification program using the app for the elderly.

This study aims to enhance the significance of the project and provide information to help citizens improve their fitness and live healthy lives by considering the impact of participation in National Fitness 100 and measures for operating it efficiently. Thus, from March to May 2019, the researcher obtained papers, websites, and various research reports related to the project, sports-activity certification guidebooks, developed exercise programs and exercise-prescription videos, various promotional materials, and frequently-asked Q & A data. These materials were used to gain an in-depth understanding of the project. Research consultations were held in June 2019. A total of 20 visits were made to a fitness center running the project and three National Fitness 100 service schools between

July and October 2019 to conduct in-depth meetings with research participants and collect interview data. In-depth interviews, lasting 30–40 minutes per person, were conducted four times. The conditions allowed participants to share feelings and thoughts about participating in the project in a natural and comfortable manner. Three group interviews with all eight participants, lasting 60–80 minutes, allowed participants to discuss their experiences and feelings further about the project. In addition, the participants' certificates, exercise-prescription records, sports activity apps, and other materials were collected and used to understand the implementation and process of the project overall.

## **2.2 Data Analysis And Research Integrity**

These data were analyzed via an inductive categorical analysis to derive the research problems. An in-depth analysis was conducted of the participants' overall experiences of running and participating in National Fitness 100. The impact of participation and methods of operating efficiently were also examined. Details of the project content, methods, tests, and prescriptions were analyzed through in-depth participant interviews, while the group interviews were used to discuss methods of operating efficiently in depth. The researcher explored close links between categories by using sub-topics to classify and analyze the participants' experiences and perceptions overall.

To ensure the integrity of the in-depth interviews and group interview results, the researcher conducted three review rounds with study participants to ensure that there were no differences in opinions. One Professor and two PhDs in Sports Education conducted a multi-directional verification of the data and a content analysis to ensure that the results were reliable and valid.

### 3. The Impact of “National Fitness 100” Participation

#### 3.1 Provision of Various Customized Services To Enhance Sports Welfare

National Fitness 100 is a national sports-welfare service, which uses scientific methods to provide exercise counseling and prescriptions by measuring and evaluating physical-fitness conditions to improve public fitness and health [11]. This service provides free physical-fitness tests and health management. The participants understood exactly what the benefits of such services were and expected people to use them.

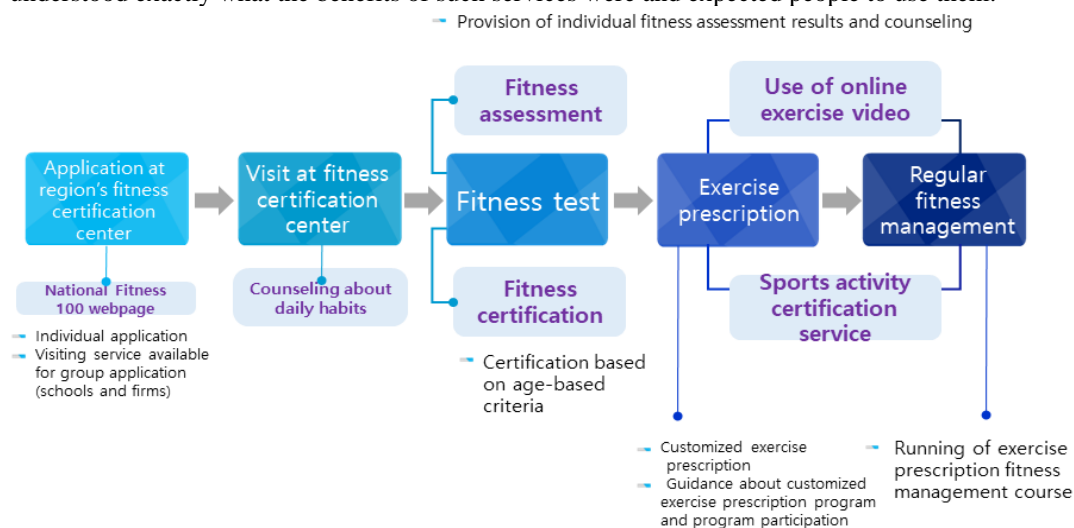


Fig 1. Fitness-certification procedures for National Fitness 100 [12].

“It is a huge benefit to measure your fitness, get prescribed customized exercise based on it, and conduct exercise programs with National Fitness 100. People who are interested in health and fitness continue to participate in this service. Many people are amazed about this service. For those who come to the fitness center, the physical-fitness examiner will teach them about fitness and measure their fitness, and the exercise therapist will create a customized exercise program for them and proceed with the program. It’s a real service for the people, although it’s a little understaffed.”(In-depth interview with Exercise Therapist J)

“I liked that they provided free exercise prescriptions and programs the most. Frankly speaking, it’s not common for you to take care of your health and get benefits from the government as you get older.”(In-depth interview with Participant D).

“I really enjoyed participating in National Fitness 100. It wasn’t just a fitness test, but I was provided with customized exercise prescriptions and programs while analyzing my lack of fitness.”(In-depth interview with Participant C).

In a study of the economic value of National Fitness 100 [7], the price that citizens paid for services was relatively higher than the cost to citizens who did not use the service, indicating that the project had high economic value. In a study by [13], the amount of money paid per person for participating in the project was estimated to be 40,722 won; thus, participation in the project is considered valuable.

Starting with a fitness test, the exercise program service increased user satisfaction through customized exercise prescriptions. It allowed users to engage with sports and participate regularly in sports programs. Individual customized exercise prescriptions helped to create rapport by identifying users’ characteristics and closely analyzing the positive and negative aspects of their fitness. They also built confidence and intimacy with users

who were unfamiliar with fitness or exercise. One way to help people who want to learn and participate in developing self-esteem is to discover their characteristics and emphasize their positive side [14]. After their fitness test results have been interpreted, people can participate in the fitness class, which is part of National Fitness 100; they can also receive services to improve their fitness. Following the recent outbreak of COVID-19, the project has developed various exercise videos, designed to be used comfortably at home, which anyone can easily follow. Thus, people can participate in programs continuously through online exercise counseling. Moreover, a combined exercise program for middle-aged women, presented by [15], reached participants who found it difficult to exercise. The study participants recognized that these customized exercise prescriptions and programs were part of a national welfare service that reflected the government's goal: to manage public health and fitness.

### 3.2 Assessing National Fitness Improvement By Issuing National Fitness Certificates

The study participants concluded that the main factor driving participation in National Fitness 100 was the issuance of fitness certificates. The fitness certificate keywords were "scientific indicators and tests," "daily lifestyle and lifestyle-oriented," "voluntary participation," and "disease prevention" [5]. The participants were classified into adolescents, adults, and senior citizens and tested for fitness. When they reached the reference points for each test, the Ministry of Culture, Sports, and Tourism issued them with grades 1, 2 and 3. The fitness test precisely measured body-composition factors, including fitness and build, using testing methods tailored to each age group. The test assessed rapidity, muscular strength, muscular endurance, flexibility, cardiopulmonary endurance, agility, and coordination. Participants received customized personal exercise prescriptions, along with certificates based on the results of their fitness tests. This enabled them to analyze their fitness by participating in exercise programs or trying again through personal exercise.

"The certificate is an example of benchmarking an overseas model and applying it to our country. In fact, most of the participants in National Fitness 100 do their best to obtain the certificate. Some who fail to obtain it work hard to make up for their weak areas and try again." (**In-depth interview with Exercise Therapist C**)

"If this year you go to the school where you were tested last year, students will analyze their fitness last year and challenge themselves to surpass it. The school also encouraged us to analyze last year's records two months ago and do our best to get the certificate." (**In-depth interview with Exercise Therapist D**)

Comments made during the first group interview:

**Participant A:** "I have been working very hard to get a fitness certificate every year since 2017. I think the motivation for the national certification of fitness was strong."

**Participant B:** "At first, I got a grade 3, so I got challenged. So, I tried to improve my fitness by participating in sports programs and personally going to the gym. I was after the certificate, but as a result, I was able to stay healthy while improving my physical strength."

"Physical fitness certificates are definitely a key part of National Fitness 100. Participants really do their best to get a fitness certificate. Then, they visit the fitness center again to compare their physical strength improvement. In some cases, the certificates are for their own careers, but usually they are for their own satisfaction. Especially for adults, it is to design another life value to achieve their health and goals in their busy daily lives." (**In-depth interview with Exercise Therapist J**)

As the in-depth interviews reveal, the study participants were considerably attracted to the fitness certificate. According to [16], the "fun" aspects of participating in the project have a positive impact on the intention to continue exercising. In other words, fitness certificates can be used to add an element of fun and enable regular management. The fun factor is the challenge of progressing toward a certificate or fitness improvement.

## 4. Operational Efficiencies for National Fitness 100

### 4.1 Extending the Scope and Stages of the Fitness Certificate

National Fitness 100 has reconsidered the need for external compensation. It motivates people through state-certified certificates, based on levels of fitness, issued by the Ministry of Culture, Sports, and Tourism. People who take part in the national fitness-certification system try to achieve higher-level certificates through a program of learning challenges and results. The fitness-certification currently consists of grade 3, which is the level of fitness required to maintain minimal health, grade 2, the level required to participate in active physical activities, and grade 1 [11], where one can attempt various sports and be active. In school physical education, students with grades 4 and 5 are categorized as low-fitness students, making it mandatory for each school to conduct a physical-fitness program.

Although simple results-based certificates are meaningful, there is a need to create other incentives and systematically distribute various kinds of certificates, including those for regular participation in fitness-level customized exercise programs (measured through testing and evaluation), reflecting the purpose of National Fitness 100. In the case of the U.S. President's Challenge certification system, the Presidential Active Lifestyle Award recognizes individual degrees of fitness improvement and the achievement of 4-step goals, in place of the three-level criteria in National Fitness 100. In addition to providing personalized exercise programs based on exercise outcomes, individual goals should be shared with exercise therapists, who can evaluate each individual's process when issuing certificates.

"It is clear that the issuing of certificates has served as an opportunity for many citizens to actively participate in the project. However, as the assessment is based on a single criteria, it is easy for those

with good fitness to meet the standard if they exercised a little, while those with low fitness had to make enormous efforts.” (**In-depth interview with Exercise Therapist J**)

“I think the certification stages should be more diverse, and within that diversity, it should be simplified to be more complex. In other words, I think that the first certification should be easy, and it should be more difficult for higher certification. Because I think it is most necessary to let people have fun and a sense of fulfilment.” (**In-depth interview with Participant B**)

Comments made during the second group interview

**Exercise Therapist B:** “My friend also participated to get a certificate for National Fitness 100, but he gave up on high standards as soon as possible. I felt that a certificate could be motivating but also depriving.”

**Fitness Tester J:** “I feel that a lot, too. People come at first to try to get the certificate, but many give up because of the high standards.”

**Exercise Therapist C:** “Personally, I think some diversity of certificates is needed. I think it is more important to guide people to challenge and improve individual standards in addition to general standards when prescribing exercise based on personal results.”

**Exercise Therapist N:** “I believe that for the health and fitness of the people, it is ultimately important to have daily habits that maintain and improve fitness. So, I think we need a system for exercising habits, such as a mileage system.”

National Fitness 100 thus needs a range of certificates to evaluate and recognize the process, as described in the interviews above. In particular, a certificate linked to setting goals and striving to meet those goals with the help of an exercise therapist would recognize motivation and make the process fairer for participants who find it difficult to meet grade 3 criteria.

#### 4.2 Improving Sports Activity Certification

As part of National Fitness 100, the Korea Sports Promotion Foundation has been offering a new “Sports Activity Certification” service since 2018 through a mobile app that allows people to participate in sports activities. Users can easily check whether they have achieved their activities to maintain a healthy lifestyle. This system uses individual results to evaluate and certify health levels in everyday life, with the aim of enhancing public fitness and health. It uses the application’s certification criteria; if an individual downloads the app and receives a sports-activity certification, he or she can receive certification results for grades 1–3, based on a four-week performance record of sports activities [11]. In addition, it provides services that help to maintain and enhance fitness through sports activities by delivering prescription results, based on an individual’s favorite sports.

Currently, although the app is being used for projects that involve sports activities and sports-event certification, there are insufficient compensation systems, such as fitness certificates and activation.

“It is true that the certificate for National Fitness 100 has had a great effect. Thus the Korea Sports Promotion Foundation conducted a pilot project to allow ordinary citizens to participate in sports activities and sports events, and apps have been developed and used. It is a method to participate in activity certification and to certify participation by using the Nil00 Mambo app, Sam0 Health app, and Swall00 Workon app.” (**In-depth interview with Exercise Therapist C**)

“Few people actually use the sports activity certification that started in 2018. Despite the very good app and content, few people actually use them. And for the certification of sports activities, you have to go to the fitness center to print and use the evaluation sheet, but since you can’t use all the wearables, it is used only for walking. In other words, the certification of sports activities was designed to encourage people to exercise more often on their own, but it is only used as a walking app.” (**In-depth interview with Exercise Therapist J**)

“I got a grade 1 certificate while participating in National Fitness 100. Then I participated in Sports Activity Certification started last year to maintain my grade. Personally, using smart devices such as wearable devices to participate in sports, I was really happy that my activities were recorded. But few people around me participate in the Sports Activity Certification service. Fitness testing is only one-off, but sports activity certification must be practiced steadily.” (**In-depth interview with Participant D**)

One of the biggest problems with National Fitness 100, revealed through prior research, is the need to strengthen public relations and voluntary participation. In addition to fitness-certification, developers have created and programmed “Sports Activity Certification” apps to turn sports activities into daily habits; however, these are not always practical. In 2019, the Korea Sports Promotion Foundation held a “certification of sports activities” event and conducted campaigns to promote fitness-certification, team competition, and word-of-mouth information. However, it was difficult to motivate people to take part actively in a “certification of sports activities” as a one-off event. There is clearly a need to actively support the wearables used in sports activities and to discover and promote those that are operated efficiently. Specific guidance and appropriate compensation systems for “certifying sports activities” must also be established for club members and elite athletes who participate in daily sports for their health. In addition

to individual sports activities, stakeholders must discuss how to certify group sports activities involving club members. App programs transmitted in real time, such as exercise prescriptions and exercise programs, need both development and service.

The certification of sports activities encourages people to lead healthy lives by participating in sports. The nation's health can be improved by linking the certification of national sports activities and the certification of national fitness [16]. In other words, to achieve the original purpose of "certifying sports activities," more programs must be developed, alongside an analysis of the health and athletic aspects of sports activities.

### 4.3 Collaboration Through Governance Activation

For National Fitness 100 to become a continuous national project and a benchmark for other countries, all elements of the health and fitness program must be shared and open to collaboration. This can be achieved by activating governance to promote shared school and community development. The Korea Sports Promotion Foundation has highlighted the need for cooperation between National Fitness 100 and the health promotion projects at public health centers. The system must improve to ensure active promotion and participation through inter-project collaboration. In the case of the German Sports Badge project, the state sports association and sports-club federation are linked to every school and local sports club; they are jointly managed by banks and insurance companies, which are responsible for promoting the project. In 2014, the South Korean Ministry of Culture, Sports, and Tourism planned a report to the Sports Bureau to propose discounts on private insurance for people certified to have excellent fitness [17]. In reality, however, there have been many difficulties, due to the lack of a systematic collaboration system. For specific collaborative efforts, individuals need a common, interconnected operation with a comprehensive database of health, hygiene, territory and fitness; national policy measures must also be sought. As [18] has argued, given advanced business management in the era of big data, every country must provide information and various services by building big data based on individual health and fitness.

"Currently, there is a lot of cooperation with schools among National Fitness 100 projects. The school operates a service that visits our center by making a reservation when testing student health. The low-strength student program operated by the school also provides National Fitness 100 and is operated in collaboration." (**In-depth interview with Fitness Tester**)

"Rather than PAPS, which measures physical strength at school, I think the testing conducted by National Fitness 100 is more scientific and reliable. And it's because the equipment is high-end and the satisfaction with the results is high. So I think I'm benefiting greatly from the school and the physical-fitness center's cooperation." (**In-depth interview with Participant A**)

Comments made during the third group interview:

**Exercise Therapist C:** "Collaboration with schools is going well, but in fact, I think running the project in conjunction with the local health center will have much more synergy."

**Exercise Therapist N:** "That's right. In fact, the health promotion project conducted by the health center is largely related to National Fitness 100, and health and nutrition-related content can be educated and participated in programs."

**Exercise Therapist J:** "I think it is more efficient to prepare for a future society to conduct personalized health projects through collaboration rather than a single project. I think it is important to build various networks such as hospitals, insurance companies, and workplaces to take care of the health of the people."

In the case of the U.S. President's Challenge, schools operate the program in conjunction with school institutions. They provide facilities, equipment, and programs free of charge over six stages, offering many incentives to the schools that participate. Currently, National Fitness 100 is well-coordinated with schools, measuring and promoting fitness in many schools with visiting services. There is a recognized need to unify student health-assessment systems through a collaboration between the Korea Sports Promotion Foundation and the Ministry of Education. This collaboration would serve as a health-behavior program for adolescent health, as presented by [19]. In addition, projects are needed to support underprivileged people by age and region. As the fitness-certification system is a public service, with a limited number of fitness centers and working personnel, participation can be limited within small village units and among senior citizens. According to study participants, most people who participate in National Fitness 100 come from particular age groups—either middle- and high-school students or senior citizens aged 60 or older. Public relations and new programs are needed to attract working people in their 30s and 50s. As most fitness centers are based in large cities, underprivileged areas require attention and policies. In particular, collaborative improvements are needed to create a dedicated pool of service workers who can visit disadvantaged areas and participate in National Fitness 100 at local health centers.

## 5. Conclusions and Recommendations

This study has examined the true impact of National Fitness 100, which has recently attracted new interest and participation. This paper has discussed efficient plans for establishing the project as a national sports-welfare policy, alongside a policy to maintain and promote the health of all citizens. For this research, three exercise



therapists, one physical-fitness tester, and four people who have participated in National Fitness 100 every year since 2017, having worked for more than three years at fitness centers in four cities (C, D, J, and N), were selected for an integrated analysis of expert and participant views. This study conducted in-depth individual interviews and group interviews to collect relevant data, which were analyzed via an inductive category analysis by encoding each subject. The first impact of participation in the project was participant satisfaction with sports programs through free fitness testing and personalized exercise prescriptions; the project was recognized as a state-supported sports-welfare service. The second impact of participation involved state-approved fitness certificates (recognizing fitness-certification stages), which gave the participants pride and a sense of challenge, motivating them to stay in the project. To achieve an efficient operating plan, it will be necessary to develop various certificates to evaluate and recognize the achievement of individual goals. These must go beyond existing generalized standards to consider health practices based on individual goals. In addition, the recently introduced "Sports Activity Certification" service should improve participation services through active promotion and compensation systems, based on records of sports-activity performance. Third, the integration of health, nutrition, hygiene, and fitness through governance activation, as well as collaboration and improved resources for disadvantaged classes and regions, must be achieved above all else.

The results of this study suggest the following directions for further research. First, individual databases should be developed via big data analyses of individual data, from general disease management to physical-fitness management. These databases should be used for research, so that new policy measures can be developed. The policy measures can ensure that individual health and fitness lifecycle checks are maintained and confirmed. Second, there is a need to study long-term strategies and plans for health and fitness policies. For National Fitness 100 to continue in the medium and long term, research must be conducted systematically on efficiency, effectiveness, problems, and projects that can be linked through collaboration. Third, it is essential to study diversity in exercise programs for people of different ages, covering the whole lifecycle. Practical research into individual programs that are easy for people to join in everyday life should be conducted via systematized exercise programs that emphasize individual fitness, while also encouraging many people to participate in generalized exercise programs. Fourth, in-depth research and discussions are needed to highlight the difficulties experienced by fitness testers and exercise therapists. For National Fitness 100 to operate efficiently and successfully, researchers must uncover the grievances of those in charge of the actual project and discuss ways to resolve the problems they face.

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