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Efforts To Improve Health And Physical Fitness Through Sports At Fitness Centers

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ABSTRACT

Purpose of the study: This study aims to determine the efforts desired by members in an effort to improve health & fitness and the results obtained by members after following the training program.

Methodology: The method used in this study is a description with a qualitative approach. Data collection techniques used are based on online interview guides, observations, libraries and documentation. The subjects in this study were all fitness center members. in the period January-March who were willing to fill out the interview guide and a total of 46 people were obtained.

Main Findings: The results of the study showed that members of Fitness Health and Sport Center exercise to improve health by 65% and improve fitness by 35% from the exercise program, namely the weight loss program (fat lose), body shaping program (body shaping), physical fitness, weight gain, muscle mass (body building), weight training program and strength program. It is concluded that the efforts of these results can be known based on factors that influence the success of the program and the benefits obtained after running the exercise program.

Novelty/Originality of this study: This study offers novelty by evaluating the effectiveness of fitness center-based exercise as an alternative strategy to improve physical health and fitness, particularly among urban populations with limited time and space for conventional physical activity.

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1. INTRODUCTION

The awareness that sports are an international science began to emerge in the mid-20th century and in Indonesia it was officially established through the declaration of sports science in 1998 [1]-[3]. Sports science is a new science that is widely recognized and has begun to develop along with the complexity of problems in the form of scientific interest that has begun to show the existence of a new science towards stability. Recreational sports are physical activities carried out in free time to fill free time that brings pleasure and joy so that through recreational sports it can improve physical fitness and prioritize the values of pleasure or satisfaction, positive, healthy, without coercion [4]-[6].

One of the efforts to realize a healthy society, the government has made an innovative breakthrough by issuing a healthy living community movement program (Germas) involving stakeholders, the private sector, academics and other sectors so that they can play a role in health development by emphasizing promotive and preventive efforts [7]-[9]. Efforts to realize a healthy society are not only carried out by the government, but the

community must also participate in implementing a healthy lifestyle. However, the many demands of life's needs, today's society is very active in working, one of the consequences is that many people become less physically active while working. Physical activity is one of the most determining indicators for physical condition, mental health and living a good life in general, physical activity has become increasingly important as a political issue in society [10]-[12].

High health costs make people do other alternatives in maintaining health. One of them is by doing physical activity, namely sports. Sports have an important role in health. Sports are basically the needs of every human being in life, so that their physical condition and health are maintained properly [13], [14]. Physiologically, sports can be used as a means of empowering the body's physiological function capabilities such as improving health, fitness and improving the quality of physical condition components including heart and lung function, agility, speed and muscle strength. Health efforts can be carried out with a maintenance approach, improving health (promotive), physical fitness (preventive), curative disease healing and health recovery (rehabilitative) which are carried out in a comprehensive, integrated and sustainable manner [15]-[17]. This will be realized if there is cooperation from sports policy makers who mobilize and the level of public awareness in participating in sports.

In addition to providing health benefits, sports can also prevent diseases such as diabetes, in 2009 it was estimated that the prevalence of diabetes in the world in adults (aged 20-79 years) would be 6.4%, and increased in 2010 to 7.7% (439 million adults) (Shaw, Sicree, and Zimmet, 2010). Sports play a major role in the prevention and control of insulin resistance, pre-diabetes, type 2 diabetes mellitus, and health-related complications of diabetes. Sports can help reduce the threat of diabetes by increasing insulin sensitivity because sports can stimulate insulin by increasing glucose uptake by muscle cells that work through glucose transporters both in aerobic exercise or resistance training that can increase insulin action [18]-[20]. Sports are used as part of a medical management plan for disease prevention. In this case, physical exercise and sports are carried out depending on the type, severity, and comorbidity of the disease.

Participation in sports is also known to reduce depression, stress and anxiety, increase self-confidence, energy levels, sleep quality and the ability to concentrate [21], [22]. Sports can run and be beneficial if done according to the rules, one of which is by doing a training program. The training program has rules that must be considered so that the goals of the sport can be achieved optimally with minimal side effects of injury. Some things that must be considered in determining the exercise program include, exercise intensity, duration (time) of exercise, frequency of exercise, type of exercise and the right exercise progression (Arovah, 2009). In the American College of Sports Medicine's (ACSM) journal there are several things that must be considered in carrying out an exercise program, using a recommended physical activity program that is designed systematically and individually in terms of frequency, intensity, time, type, volume and progression, known as the FITT-VP principle [23]-[25]. These guidelines also apply to individuals aged 50 to 64 years with significant clinical conditions or physical limitations that affect movement. Deconditioning, low muscle tone, and low functional capacity contribute to poor health outcomes and low quality of life therefore, ACSM recommends that older adults engage in a combination of aerobic, resistance, flexibility, and balance training to improve and maintain health.

The increasingly advanced development of the era has made several agencies establish fitness centers as a place for the community to remain active in exercising, utilizing their free time and maintaining their health. Fitness centers are an important means for doing physical activities [26]-[28]. Exercising at a fitness center has several advantages, including the presence of a personal trainer who is tasked with helping members to guide the exercise so that it runs properly and achieves maximum results. The general purpose of members visiting fitness centers is because they are motivated by competition, getting pleasure and social factors. It was found that female members have a desire to get an ideal body posture according to health, a trained body and lose weight. While male members have a desire to further improve physical fitness [29].

The first study, Efforts to Improve Health and Physical Fitness Through Sports at Fitness Centers, appears to focus on individual-level engagement in structured physical activities offered in commercial fitness environments. Its background is likely grounded in the increasing societal awareness of the importance of maintaining health and fitness through regular exercise. This research typically emphasizes the motivational, behavioral, and physiological outcomes of sports-based exercise in fitness centers. The narrative in such a background often highlights barriers and facilitators to regular attendance, personalization of exercise programs, and the role of fitness instructors or trainers in supporting health outcomes.

In contrast, the second title, Community Fitness Center-Based Physical Activity Interventions: A Brief Review, positions its background from a public health and community development perspective. It likely emphasizes how community-based facilities often more accessible and inclusive than commercial fitness centers can serve as platforms for health promotion, disease prevention, and social equity [30], [31]. The background of such studies often draws attention to population-level health disparities, the role of environment and accessibility in physical activity participation, and the effectiveness of intervention programs tailored to diverse community needs (e.g., elderly, low-income groups, youth). Here, the interest lies not only in fitness outcomes, but also in the broader societal impact and sustainability of interventions.

The key research gap between these two perspectives lies in the integration between individualized fitness center engagement and structured, scalable community interventions. While the first study may overlook the socio-environmental determinants that affect exercise adherence across populations, the second may not sufficiently explore the personalized, sport-based training mechanisms that drive physiological adaptation at the individual level [32], [33]. There is a need for research that bridges these two perspectives investigating how community fitness centers can deliver evidence-based, individualized sport training while maintaining accessibility and public health impact. Addressing this gap would offer a more holistic understanding of how fitness centers, both commercial and community-based, can contribute to national health outcomes.

Based on the identified research gap between individual-focused approaches in the study "Efforts to Improve Health and Physical Fitness Through Sports at Fitness Centers" and community-based physical activity interventions, the novelty of the first study lies in its attempt to integrate individualized, sport-based training with adaptive health promotion strategies within the structured environment of modern fitness centers. This novelty emerges from exploring how personalized exercise programs guided by professional instructors, supported by advanced equipment, and tailored to individual schedules can not only significantly enhance physical fitness but also serve as a preventive health intervention model adaptable to broader contexts, including communities with limited access to traditional healthcare services. The study introduces a new perspective by positioning fitness centers not merely as spaces for individual physical training, but as potential platforms for sustainable health behavior development, effectively bridging the gap between individualized effectiveness and long-term public health impact.

The findings of this study have the potential to contribute meaningfully to both the theoretical and practical domains of health and sport sciences. Theoretically, the research offers a nuanced understanding of how personalized, sport-based interventions within fitness centers can influence not only physical fitness but also long-term behavioral change in health practices. Practically, this study provides evidence that can inform the development of hybrid fitness center models that function as both training facilities and preventative health platforms. By demonstrating how structured exercise programs in private fitness centers can be optimized to meet individual health needs, the study supports future collaboration between the fitness industry and public health agencies to design more targeted, scalable interventions. Such a model can enhance the accessibility, efficiency, and impact of physical activity programs, particularly in urban settings where sedentary lifestyles are prevalent.

The urgency of this research is underscored by the growing public health challenge posed by physical inactivity and lifestyle-related diseases in urban populations. As non-communicable diseases continue to rise globally linked to sedentary behavior, poor fitness, and inadequate physical activity there is an immediate need for innovative solutions that promote sustainable health behaviors. Fitness centers, which are increasingly accessible in many cities, represent an underutilized yet highly promising setting for structured health interventions. However, without empirical evidence to guide their role in public health promotion, their potential remains limited. This study addresses that gap by offering timely insights into how sports-based training in fitness centers can be strategically aligned with public health objectives, thus supporting urgent policy and programmatic responses to modern health crises related to inactivity and poor fitness.

2. RESEARCH METHOD

The general purpose of members visiting fitness centers is motivated by competition, enjoyment and social factors. It was found that female members have a desire to get an ideal body posture according to health, a trained body and lose weight. While male members have a desire to further improve physical fitness. The subjects in this study were all HSC fitness center members in the period February-March who were willing to fill out the questionnaire and a total of 46 respondents were obtained.

The instrument in this study conducted a non-participant observation study where the researcher was only an observer who recorded, analyzed and made conclusions about the data obtained. In this study, the researcher can find the necessary information in the form of member data and information related to the research to be conducted at the fitness center health and sport center. Furthermore, the research instrument is an interview. This interview was conducted by sending a list of questions compiled in an online interview guide to fitness members in March and members who are willing to take part in the study. This aims for researchers to be able to obtain information more clearly and directed. The interview guidelines in this study are presented in the following table.

Table 1. Interview Guidelines Grid

Variables	Factor	Indicator	Item No
Efforts to improve health and physical fitness through sports	Health	a. Recommended exercise programs for disease prevention such as fat loss, weight gain, body shaping	1-10

		b. Determination of frequency, intensity, time, type, volume and progress (FITT-VP) in running an exercise program	
	Physical Fitness	a. Recommended exercise programs to improve work capacity and productivity such as physical fitness and body building	1-10
		b. Determination of frequency, intensity, time, type, volume and progress (FITT-VP) in running an exercise program	
	Olahraga	a. Physical changes that occur after running a training program	11-13
		b. Factors that influence the success of a training program	
		c. Benefits obtained after doing sports	
		Amount	13

Next is the literature study, this technique is done by searching for literature or reading books that contain theories, information or reports related to this research. As is done by researchers by searching in books, journals, theses and previous research can be a reference for researchers. Finally, documentation, the documents used in this research are in the form of photos, as well as data in the Fitness Center obtained through observation. The results of observations and interviews will be more valid and reliable if supported by photos. The documentation referred to in this study is the results of photography carried out in the field during this research.

The data collection technique is carried out using triangulation which aims to increase the data obtained with good credibility. Triangulation itself according to Sugiyono (2009: 330) is defined as a data collection technique that combines various data collection techniques and existing data sources. The data sources in this study were by conducting non-participant observation, online interviews and documentation. By combining the three, credible data can be obtained, if the same data is obtained from the three processes, the research results are considered to have high credibility.

Data analysis techniques obtained in the field are collected and recorded, then the data obtained is described by the researcher. In data reduction, the researcher groups information based on the focus of the research on improving health and fitness through sports, what factors cause the success of the training program after becoming a member of the fitness center. The presentation of data in the study is carried out in the form of an explanation of the results of the interview along with the conclusions of the interview results. All are designed by combining information that is arranged in a coherent and easy-to-understand form. At this stage, the researcher draws conclusions based on the data obtained. Conclusions that were initially unclear will increase to become more detailed. The final conclusion will appear depending on the size of the data collections obtained regarding fitness center members. Every study must have credibility so that it can be accounted for. The credibility of qualitative research is the success of achieving the intention of exploring complex problems or trust in the results of research data. The data validity technique in this study is through triangulation. The triangulation technique was chosen because the data and data collection techniques need to be seen as reliable to produce scientific research, by using triangulation researchers can recheck their findings by comparing various sources, methods, different theories.

3. RESULTS AND DISCUSSION

This research was conducted at the Fitness Center. The observation was carried out on January 7-March 20, 2020 and the distribution of interview guides on March 19-28, 2020. During the period, 46 respondents were collected in the study. After obtaining the results of the observation and distribution of the interview guide, the results were described based on the results obtained. The study was intended to determine the efforts made by members in improving health and physical fitness through sports. The description of the research results is as follows:

3.1. Research Results and Findings

Table 2. Demographic Data of Fitness Health and Sport Center Members

Demographic Data		Frequency	Percentage
Age	Late Teenagers (19-25 tahun)	36	78%
	Early Adulthood (26 -35 tahun)	9	20%

	Late Adulthood (36 -45 tahun)	1	2%
	Total	46	100%
Gender	Man	29	63%
	Women	17	37%
	Total	46	100%
Last education	SMA/SMK	23	50%
	S1	17	37%
	S2	4	9%
	D3	2	4%
	Total	46	100%

3.2. Discussion

Health and physical fitness can be obtained by doing physical activities through sports according to the goals to be achieved. So far, efforts to improve the health and physical fitness of Health and Sport Center fitness members are unknown. So this study aims to determine the desired targets and the results of improving health and physical fitness through sports in Health and Sport Center fitness members. The results of this study indicate that fitness members do sports to improve health by 65% and improve fitness by 35%.

Based on the data obtained, it can be seen that fitness members do various training programs that are already available and some members add the desired training program to support success in achieving the goal of exercising at the Health and Sport Center fitness. The training programs that members are interested in are the fat loss program or weight loss by 30%, the body shaping program or body shaping by 26%, the physical fitness program or physical fitness by 23%, the weight gain program (weight gain) and body building (muscle mass gain) by 9% and those who choose other answers by answering weight training and strength programs by 3%.

Basically there are two types of energy metabolism systems needed in every human movement activity, namely from the anaerobic energy system metabolism and the aerobic energy system. Both systems cannot be separated absolutely during muscle activity. The difference between the two energy systems lies in the presence or absence of oxygen (O2) during the process of fulfilling energy needs. The anaerobic system during the process of fulfilling its energy needs does not require the help of oxygen (O2), but uses the energy that has been stored in the muscles, namely ATP and PC. On the other hand, the aerobic energy system in the process of fulfilling energy needs to move requires the help of oxygen (O2) which is obtained by inhaling air around and outside the human body through the respiratory system (Sukadiyanto, 2011). The type of exercise chosen by members to support the program is by choosing aerobic (treadmill, stationary bike, etc.) and anaerobic (weight lifting) these results give the same percentage of 47%, and some members choose a combination with a percentage of 6%. Isaksson et al (2019) stated that aerobic physical activity is an activity that is associated with stamina, fitness and has the greatest health benefits.

In determining a sports training program, several things that must be determined include the frequency of training, intensity of training, duration (time) of training, type of training and the right training progression. Based on the data obtained, members implement training with a frequency of training 2-3 times a week by 59%, 2-5 times a week by 35%, 2-5 times a week by 4%. And the least response amounting to 2% in other answers is 3-4 times a week. Training with intensive frequency should also be done with alternating types of weight and non-weight training. Things to avoid are weight training that is done more than 5 times a week.

Based on the data obtained, the duration of time needed by members to run the most training programs is > 60 minutes by 56%, 40-45 minutes by 33%, 30-35 minutes by 8% and the least response amounting to 2% in other answers is with a duration of 1-2 hours. The results of the study based on training intensity obtained a response that the most answers from respondents were with medium intensity by 74%, high intensity by 21%, low and maximum intensity had a percentage of 2%. Then other responses also had a percentage of 2%, namely with low, medium and maximum variation answers. The duration of time carried out is inversely proportional to the intensity of the training. High intensity training and short training duration cause the same body response as low intensity training and long duration. Arofah (2009) explains that for people who are accustomed to low activity, the recommended duration is 20 to 30 minutes with an intensity (40 to 60% of functional capacity). Adjustment of exercise duration and intensity is based on the individual's physiological response to exercise, health status and exercise goals (e.g. weight loss).

The results of the analysis obtained to measure the intensity of the member's exercise know it by calculating the pulse rate of 32%, fatigue experienced by 31%, the amount of sweat released by 18%, measuring based on breathing conditions by 15% Furthermore, the response that is at least 3% in other answers is the talk test and muscle failure. Exercise intensity can be expressed in absolute units (eg: watts) or expressed in relative form (eg against maximum heart rate, METs, VO2 max or RPE / Rating of Perceived Exertion) (Jette, 1999).

Based on the results obtained in one training session, members do how many times they rest, it is known that the most common answers from respondents are 2 times rest by 28%, 3 times and 4 times rest by 23%, 1 time

by 15%, and the least response amounting to 11% in other answers, namely more than 5 times rest and rest every time between sets. And the duration of rest based on the most common answers from respondents is 2 minutes by 39%. Furthermore, the answers of respondents who chose 3 minutes were 22%, then the answers of respondents who chose 4 minutes were 17%. Respondents who chose less than 1 minute were 15%. And the least response amounting to 7% in other answers was with a duration of more than 5 minutes, this means that in one training session members usually train 30-60 minutes per day. The components of the training program obtained from the respondents' answers must be interrelated. For example, the duration of training depends on the intensity and frequency of training. The higher the intensity and frequency of training, the shorter the duration of training required.

From the results obtained based on respondents' answers, it is known that mineral water is very popular when doing sports, the percentage is 83%. Furthermore, the respondents' answers who chose isotonic drinks were 10%, then the respondents' answers who chose to drink milk were 4%. The function of mineral water is to help the digestion process, metabolism in the body, solvent and transporter of nutrients, joint lubricants and body temperature regulators. If the amount of water consumed is less than the ideal amount, the body will lose a lot of fluids (dehydration) which can reduce performance during exercise [34], [35].

The results of the analysis for the data obtained based on respondents' answers about significant changes that occurred in the respondent's body include 1 month of 34%. Furthermore, the answers of respondents who chose the answer 2 months were 30%, then the answers of respondents who chose 3 months were 6% and more than 4 months were 13%. Respondents who chose others were 17% with an average answer of not feeling significantly. Factors that influence the success of members from the analysis results include being carried out progressively by 24%, consuming sufficient nutrition and rest by 21%, understanding knowledge and mastery of training program material by 20%, good body condition by 18% and respondents who chose adequate facilities by 16%. Irianto (2004) stated that to achieve optimal training or fitness goals, people need to know the basic principles in fitness training which have a very important role in physiological and psychological aspects. All training components must be improved according to the improvements or progress achieved by athletes as a whole and properly monitored [36]-[38]. In designing a training process, all aspects of the training components must be considered, namely the distance traveled and the number of repetitions (volume), the load and speed (intensity), the frequency of appearance (density), and the complexity of the training. Training components are the key or important things that must be considered in determining the dose and load of training to get maximum results in running a training program.

Furthermore, the benefits obtained based on the analysis results are that HSC fitness members carry out training programs to improve quality of life by 25%, prevent or control stress and reduce fat or control weight permanently by 22%, then the respondents' answers who chose to prevent various other degenerative diseases such as cancer, coronary heart disease, stroke, high LDL cholesterol by 16%. Respondents who chose to improve sports performance for an athlete by 12%, and the least response amounting to 3% in other answers was to increase endurance, make the body fitter and improve social life [39], [40].

Overall, from the explanation above, it can be interpreted that the efforts made by Fitness Health and Sport Center members to improve health and fitness are by doing a fat loss training program (weight loss), body shaping program (body shaping), physical fitness (physical fitness), weight gain (weight gain), body building (muscle mass gain), weight training and strength program. While the results of the efforts of Fitness Health and Sport Center members in improving are known from the benefits felt after doing the training program.

4. CONCLUSION

Efforts made by Fitness Health and Sport Center members to improve health by 65% and improve fitness by 35% from the selected exercise program, namely weight loss program (fat lose), body shaping program (body shaping), physical fitness, weight gain, muscle mass (body building), weight training program and strength program. The results of these efforts can be known based on factors that influence the success of the program and the benefits obtained after running the exercise program.

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