

DESIGNING, IMPLEMENTING, AND EVALUATING A PROFESSIONAL
LEARNING COMMUNITY FOR GROUP EXERCISE INSTRUCTORS

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ABSTRACT

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This study aimed to develop, implement, and evaluate a Professional Learning Community (PLC) intervention for the Group Exercise Instructors (GEIs) working in a university setting "Sport for Health" program. To this end, initially, a six-week PLC intervention was designed by using the American College of Sports Medicine (ACSM, 2018) professional standards for GEIs. Then, the PLC implemented by the participation of six GEIs'. Progression of the six-week PLC intervention and immediate and effects of the intervention on the GEIs', and their practices were evaluated by qualitative methods, including long term observation and interviews with the participants. Field notes and fully transcribed interviews were analyzed by descriptive and pattern coding, and thematic analysis approaches. Findings indicated that GEIs motivation and satisfaction from the participating in PLC was high. PLC meetings implemented as intended and met the quality indicators of PLCs. GEIs comprehended the professional competency indicators on "participant and program assessment", "class design", "leadership and instruction", and "legal and professional responsibilities". By participating in the PLC meeting, they improved their knowledge

of professional competencies. Observations and interview findings, four months after the PLC program, indicated that GEIs' transferred the new knowledge and skills gained from the meetings to their exercise classes. In conclusion, well designed PLCs using professional standards as a framework are effective in developing GEIs professional competencies. Use of PLCs in the professional development of GEIs is strongly recommended.

Keywords: Professional Learning Community, Group Exercise Instructors, Instructional Design, Professional Development

ÖZ

GRUP EGZERSİZ EĞİTMENLERİ İÇİN MESLEKİ ÖĞRENME TOPLULUĞU TASARLAMAK, UYGULAMAK VE DEĞERLENDİRMEK

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Bu çalışma, üniversitelerde "Sağlık için Spor" programında çalışan Grup Egzersiz Eğitimcileri (GE) için bir Mesleki Öğrenme Grubu (MÖG) uygulaması geliştirmeyi, uygulamayı ve değerlendirmeyi amaçlamıştır. Bu amaçla, ilk olarak, GE'ler için "American College of Sports Medicine" (ACSM, 2018) mesleki yeterlik standartları kullanılarak altı haftalık bir MÖG uygulaması tasarlanmıştır. Ardından, MÖG toplantıları altı GE'nin katılımıyla gerçekleştirilmiştir. Altı haftalık MÖG uygulaması süreci ve uygulamanın GE'ler üzerindeki etkileri gözlem ve görüşme yöntemleri ile incelenmiştir. Toplanan nitel veriler betimleyici ve kalıp kodlama ve tematik analiz yaklaşımları ile analiz edilmiştir. Bulgular, GE'lerin MÖG'lere katılma motivasyonunun ve katılımdan memnuniyetinin yüksek olduğunu göstermiştir. MÖG toplantıları amaçlandığı gibi uygulanmıştır ve MÖG'lerin kalite göstergelerini karşılamıştır. GE'ler, "katılımcı ve program değerlendirmesi", "sınıf tasarımı", "liderlik ve öğretim" ve "yasal ve mesleki sorumluluklar" konularında mesleki yeterlik unsurlarını kavramışlardır. MÖG programından dört ay sonra yapılan gözlemler ve görüşme bulguları, GE'lerin toplantılardan edindikleri yeni bilgi ve becerileri egzersiz

sınıflarına aktardığını göstermiştir. Sonuç olarak, mesleki standartlar üzerine iyi tasarlanmış MÖG'lerin, GE'lerin mesleki yeterliliklerini geliştirmede etkili olduğu saptanmıştır. Bu nedenle GE'lerin profesyonel gelişiminde MÖG'lerin kullanılması kuvvetle önerilir.

Anahtar Kelimeler: Profesyonel Öğrenme Topluluğu, Grup Egzersizi Eğitmeni, Öğretim Tasarımı, Mesleki Gelişim

To My Family

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CHAPTER 1

INTRODUCTION

1.1. Background of the Study

Developing the appropriate health promotion program is essential in the university setting since university students are often faced with critical lifestyle decisions like stress management, nutrition and substance abuse (Liguori & Carroll-Cobb, 2019). In a university setting, the goal of the health promotion programs is to offer various exercise programs as well as health and wellness information to bring positive changes in student's level of physical activity, their health and wellness.

Lack of physical activity is highly correlated with different types of health-related disorders (NIH, 2000; Wadden, Brownell, & Brownell, 2002). That's why governmental and nongovernmental organizations recommended various guidelines for improving physical activity level. For instance, in 2010 World Health Organization recommended doing 150 minutes moderate level of physical activity or 75 minutes vigorous level of physical activity per week for adults (WHO, 2010). However, researchers indicated that the level of physical activity among the university students, especially among women is not at the optimal level (Cengiz, Ince, & Cicek, 2009; Ince & Ebem, 2009; Liguori & Carroll-Cobb, 2019). Unfortunately, this situation is not only limited to university students. For example, a large-scale examination of the physical activity of school-age population indicated that more than 70% of children and youth have a sedentary lifestyle globally (Guthold, Stevens, Riley, & Bull, 2020).

A sedentary lifestyle increases the BMI that leads to obesity or overweight, which associated with increased risk of both physical and mental disorders like coronary heart disease, different types of cancer, diabetes, obesity, and depression and anxiety. On the other hand, among those who are active, dropping out of the physical activity

is common. Several studies revealed that almost 50% of physical activity participants giving up exercise within six months (Dishman & Buckworth, 1996; Stiggelbout, Hopman-Rock, Tak, Lechner, & van Mechelen, 2005; Arikawa, O'Dougherty, & Schmitz, 2011).

Over the years, health professionals have recommended designing health-related programs that meet the needs of university students (Ince, 2008; Lovell, Ansari, & Parker, 2010; Ince, Rahim, Yıldırım, & Mehrtash, 2014; Müftüler & Ince, 2015). Recent findings represented that almost one-quarter of all undergraduate students gain weight during their first semester (Finlayson et al., 2012). These findings support the need for effective strategies to benefit these young adults to maintain a fit and healthy body (Horstmanshof & Zimitat, 2007). Facilitating and improving the effective health-related fitness programs at university settings appears to have a crucial role in shaping life-long physical activity behavior change among the students since it lasts for a minimum of three to four years.

Besides designing the program, the importance of motivational factors to encourage the students to participate in physical activity is highlighted in recent years (Kulavic, Hultquist & McLester, 2013; Kilpatrick, Hebert & Bartholomew, 2005). While plenty of factors influence participation and motivation to do physical activity, researchers suggest that exercise instructors can influence exercise behavior significantly. For instance, a multitude of studies have presented that exercise instructors can 1) increase the participation in weight loss programs for whom suffer from obesity (Jeffery, Wing, Thorson, & Burton, 1998), 2) increase the exercise participation in older adults with severe disability (Cooper & Browder, 1997), or mild cognitive impairment (Tak et al., 2012) 3) maintain the stage of exercise behavior change in woman college students (McClaran, 2003; Fisher & Bryant, 2008), and 4) boost the intensity of exercise (Coutts, Murphy, & Dascombe, 2004; Hoffman et al., 2008; Gentil & Bottaro, 2010; Storer, Dolezal, Berenc, Timmins, & Cooper, 2014).

Previously, researches have attempted to identify the specific association between exercise instructors and the participation to exercise explained above. They revealed instructors' motivation skills, listening skills, and empathic communication skills are influential in improving the physical activity level of participants (McGuire, Anderson

and Trail, 2009; Mehrtash & Ince 2018). Moreover, they demonstrated that participants' levels of satisfaction about club's environment have a positive relationship with fitness instructors' social skills (Mehrtash & Ince 2018; McGuire et al., 2009).

Medina-Jerz, Bryant and Green (2010) indicated that exercise instructors who have formal education in exercise programming could positively support the exercise participants' adherence. Since there is a weak licensing requirement for being a group exercise instructor (GEI), certification will be the only means to elevate the profession of instructor on the allied health continuum (Bushman, 2014). Undoubtedly, standardized training and certification are essential for the GEIs to increase their knowledge about different areas like physiology, anatomy and nutrition but due to being too theoretical might not be useful in an applied setting (Larson, Starkey, and Zaichkowsky, 1996). Based on Eichhoff-shemek (2010), being an exercise instructor needs additional education besides standardized certification unless their clients may experience bodily injuries due to the negligence of trainers (Brathwaite & Eickoff-shemek, 2007). Therefore, group exercise instructors (GEIs) need to be a life-long learner to prescribe a safe and effective exercise program for clients.

Due to the importance of GEIs' role in increasing participants' level of physical activity and adherence, various organizations recommend professional development programs for improving "content knowledge (what to teach)" and "pedagogical content knowledge (how to teach)" of them. At the same time, different professional development programs have been implemented to increase the educational standards for exercise instructors over the past decade.

For instance, the American College of Sports Medicine (ACSM) created a set of professional competency benchmarks (standards) for GEIs (ACSM, 2018). ACSM GEI standards are based on four main domains, including 1) Participant and Program Assessment, 2) Class Design, 3) Leadership and Instruction, and 4) Legal and Professional Responsibilities. Although there are other organizations works on standards for the GEI certification such as European Standards (Europe Active Occupational Standards for GEI, 2017), ACSM benchmarks are used for a long time and well accepted as wellness industry standards for GEI certification globally.

Currently, using the professional learning communities (PLC) is regarded as one of the most effective approaches in developing the professional competencies of the workers in different fields with the research evidence behind it (Wenger, 1998; Hunuk, Ince, & Tannehill, 2013; Kılıç, 2019; Ince, 2019; Tannehill et al., 2020). PLC is based on social learning theories of Bandura (1969), Vygotsky (1978) and Wenger (1998). It is a learning community that a group of professionals meets regularly, shares expertise, and works collaboratively to improve their professional competencies and the performance of their clients/students (Hord, 2009).

PLCs are usually small groups of professionals, and all members are actively involved in reflecting on their professional practice and supporting others. According to Hord (2009), in an effective PLC, the learning setting should have a shared vision/purpose, shared leadership, supportive structural conditions (time, place, resources), supportive relational conditions (respect, caring, trust), collective learning to improve professional competencies. Tannehill et al. (2020) state the significant PLC characteristics under seven headings: 1) PLCs should be ongoing and sustained 2) PLCs should be based on the needs and interests of participants, 3) PLCs should acknowledge the participants as learners in an active and social environment, 4) PLCs should include collaborative opportunities within learning communities, 5) PLCs should develop participants' pedagogical skills and professional content knowledge, 6) PLCs should be facilitated with care, and 7) PLCs are useful when they get institutional support.

Most of our knowledge on application PLC comes from teacher education field (Blanton & Perez, 2011; Hunuk, Ince, & Tannehill, 2013; DuFour & Dufour 2013; Parker & Patton, 2017; Tannehill et al., 2020). Hunuk, Ince, & Tannehill (2013) found that teachers who participated in PLCs' improved their students learning as well as their professional content knowledge. Besides studies focusing on teacher development, there are studies applying PLC to performance coach development. Those studies supported the positive influence of the performance athlete coaches' PLC participation for enhancing the coach's professional growth (Culver & Trudel, 2006; Garner & Hill, 2017; Bertram, Culver, and Gilbert, 2017) and their athletes' development (Falcao, Bloom & Gilbert, 2012; Bertram, Culver, and Gilbert, 2017).

As mentioned above, there are plenty of studies in the designing and implementation of PLCs in teacher education and performance coach education in sports science literature. A literature search indicated a dearth of study available in the exercise context conducted for GEIs on the use of PLC. Designing and implementing effective PLCs for GEIs in line with their critical roles and responsibilities in regular, meaningful and health/wellness-focused exercise participation in group exercise environments such as Aerobics, Pilates, Yoga, Zumba can support the effectiveness of their professional practices.

Using the aforementioned perspective, the purpose of this study was to design, implement and evaluate the impact of the PLC program, which is structured based on ACSMs professional competence standards for GEIs working in the university setting.

1.2. Significance of the Study

University students are a specific group of the population under the risk of hypokinetic condition and risky health behaviors (Liguori & Carroll-Cobb, 2019). Health experts recommend offering health promotion programs for this group (Ince, 2008; Lovell, Ansari, & Parker, 2010; Müftüler & Ince, 2015). Exercise programs are useful tools to support university students' health and wellbeing (Ince, 2008; Müftüler & Ince, 2015; Liguori & Carroll-Cobb, 2019). Within the universities' rich social and physical context, many exercise opportunities are usually offered for the students by the institutions (Ince et al., 2014).

GEIs role and responsibilities in those setting is offering quality group exercises to students, ensuring their regular physical activity participation in a healthy setting, and gaining health benefits from the participation (ACSM, 2018). However, students' dropout rates from those sessions are very high (Dishman & Buckworth, 1996; Ince et al., 2014). This situation brings the professional competencies of the GEIs under discussion. There is a need to support the professional development of GEIs on a lifelong learning basis.

PLCs are promising means of supporting the competencies of teaching professionals, including teachers, performance coaches, and GEIs (Wenger, 1998; Hunuk et al.,

2013; Kılıç, 2019; Ince, 2019; Tannehill et al., 2020). In PLCs, professionals come together to share, reflect and discuss professional practices in small groups (Wenger, 1998). There is plenty of application of PLCs for teachers and performance coaches in the literature (Culver & Trudel, 2006; Hunuk et al., 2013; Garner & Hill, 2017; Bertram, Culver, and Gilbert, 2017; Kılıç, 2019; Tannehill et al., 2020). However, there is a lack of information about the design, implementation, and evaluation of PLCs for the GEIs in sports science literature. ACSMs' professional competency standards for the GEIs is a good base to use in designing PLCs for this specific group by considering the characteristics of effective PLCs identified in education literature.

By joining PLCs, GEIs will have the opportunity to share their experiences, learn together and support each other in a collaborative manner (DuFour & Eaker, 1998). The results of this study will increase the knowledge to design, implement and evaluate effective PLCs for GEIs. With the impact of the PLC experience, GEIs are expected to meet their students' needs by offering better group exercise programs in line with ACSM standards.

1.3. Research Questions

This study aimed to design, implement, and evaluate a PLC program for the GEIs. Based on this aim, the following research questions were asked:

1. What were the GEIs' thoughts on the PLC program?
2. How did PLC meetings take place in six weeks?
 - a. What kind of information arose based on the needs of the GEIs in PLC meetings?
 - b. How did PLC manifest the six dimensions of PLCs determined by Hord (2009) including shared purpose, shared leadership, supportive conditions, supportive relationship, individual, organizational improvement, and collective learning?
3. What were the influences of the PLC program on the GEIs' implementation?
 - a. Design of the sessions (aim, content, implementation, and assessment).

- b. Implementation of sessions (group management; communication; assessment).
- c. Measurement and evaluation

1.4. Definition of Terms and Concepts

Professional Learning Community: PLC is a kind of process that professionals work together to improve their practice and achieve a common goal (Dufour, Eaker, & Dufour, 2005). According to Hord (2009), it has six dimensions, including "a shared vision/purpose, shared leadership, supportive structural conditions (time, place, resources), supportive relational conditions (respect, caring, trust), collective learning to improve teaching and learning and individual and organizational improvement".

ACSM Standards for Group Exercise Instructors: ACSM standards identify professional competencies for Group Exercise Instructors under four domains, including 1) Participant and Program Assessment, 2) Class Design, 3) Leadership and Instruction, and 4) Legal and Professional Responsibilities. There are defined knowledge and skills for each specific domain (ACSM, 2018).

Group Exercise Instructor: Group Exercise Instructors are fitness professionals who teach, lead, and motivate individuals through designed group exercise classes such as Aerobics, Pilates, Yoga or specific participation oriented physical activities performed with groups of participants (ACSM, 2018).

Basic Psychological Needs: One of the central roots of the self-determination theory is Basic Psychological Needs in Exercise Setting. According to basic psychological needs satisfaction theory, each person has basic psychological needs for relatedness, competence and autonomy (Deci & Ryan, 2002).

Health-Related Fitness: Health-related fitness means the amount of physical fitness, which is performed toward the prevention or rehabilitation from the disease. In addition, it directed to develop a higher level of functional ability for the discretionary and necessary tasks of life (Plowman & Smith, 2008). It consists of four components, including muscular strength and endurance, cardiorespiratory endurance, body composition and muscular flexibility (Hoeger & Hoeger, 2013).

CHAPTER 2

LITERATURE REVIEW

A review of the literature was undertaken for the aim of identifying what information was previously conducted to the broad topics of the function and effects of Group Exercise Instructor. Since this study focused on the impact of six-week PLC program on enhancing the content knowledge of the GEIs to be more effective on their implementation by using ACSM professional standards, this chapter is organized according to two themes, which provided for grounding of this study: 1) The effectiveness of GEI, 2) ACSM professional competency standards for GEIs, and 3) Professional Learning Communities.

2.1. Effectiveness of Group Exercise Instructor

The importance of the role of the GEI in motivating the students to be regularly active is undeniable. Many studies have explored the impact of the fitness instructor on increasing participation in different age groups. For instance, in one study conducted by Cooper and Browder (1997), it is demonstrated that personal trainer has a significant impact on adherence of the adults who suffer from developmental disabilities. Sample of this study consists of just three participants because it was hard to find more people with this kind of disability. Firstly, fitness instructor led these three participants with verbal praise to prompt participants, who were completing the prescribed exercise by dumbbell curls. And then in second step instructor stopped giving verbal guidance and praise to participants to achieve their goals. Results showed that by stopping the verbal praise, the performance of the participants decreased and they released attain their goals.

In another study, Tak et al., (2012) conducted a six-month follow-up program with older adults with mild cognitive impairment. Researchers provided 138 updates on patterns of participation and the determinants of exercise maintenance. The outcome revealed that only 25% of the adherences carried on their exercise plan, and 61% of adherences quit their activity, and 14% of them expressed their intention for doing exercise. The researchers realized that the quality of exercise instructor is one of the critical factors about maintenance and satisfaction with the program.

One earliest study that evaluated several techniques for increasing the exercise participation reported that personal trainer has a significant role in increasing regular participation with different goals (Jeffery, Wing, Thorson & Burthson 1998). They evaluated 193 obese patients with losing weight goal. The results demonstrated that participants who exercised with personal trainer had higher participation in moderate exercise program comparing with patients who exercised without a personal trainer. In another study conducted in recent years, researchers explored the same topic with participants who try to improve their body mass index, Vo₂max, peak leg power and chest-press strength (Storer et al., 2014). The findings revealed that participants who worked with personal trainer achieved significant improvement comparing with participants who exercise without a personal trainer. The same results achieved by another study conducted by Gentil and Bottaro (2010). In this study, the influence of direct supervision training examined on league players during 12 weeks of resistance training and the results compared with non-supervised athletes' performance. The findings revealed that athletes who benefited from direct supervision had higher exercise intensities versus non-supervised athletes.

In one study trans-theoretical Model was used to examine the effects of exercise instructors on changing the behavior of the participants. In this research, the stage of exercise change of two groups of college students who were divided in the experimental and control group was compared. The results revealed that the control group who did not receive personal trainers' service has a lower stage of exercise change than the experimental group who benefited from a personal trainer (Fischer & Bryant, 2008). This study was replicated by McClaran (2003), and researchers

recorded a significant progression through exercise stages of change of the participants who received personal trainers' service.

The effect of fitness instructor on the psychological aspects of behavioral change was another focused topic for several researches (Hammond, Leonard, & Fridinger, 2000; Marcus & Simkin, 1993; Marcus, Simkin, Rossi, & Pinto, 1996; Naylor, Simmonds, Riddoch, Velleman, & Truton, 1999). McClaran; 2003) explored the impact of fitness instructor by assessing the exercise stages of change among trainers. Researches evaluated the effect of a 10-week workshop conducted for 129 fitness instructors on the exercise stage of change of the students. In workshop information related to goal setting, problem-solving techniques, barriers of participation, relapse prevention techniques were discussed with fitness instructors. The results demonstrated that after program stages of change of 73% of participants' who benefited from fitness instructor's support who passed the training program was moved up. It means the presence of a knowledgeable fitness instructor has a positive impact on changing the participants' behavior.

2.2. Essential Skills for Effective Group Exercise Instructor

Several studies determined different essential skills for being an effective fitness instructor (McGuire, Anderson, & Trail, 2009; Melton, Dail, Katula & Mustin, 2010). For instance, in a study conducted by Melton et al. (2010), a small sample of women were asked to reflect their attitudes toward a successful fitness instructor. The participants of this research claimed that interpersonal skills like empathic communication and active listening are effective strategies used by successful instructors for increasing the motivation for regular participation. In addition, the same questions were asked from a group of a personal trainer. They also reported that high quality of communication, including empathy and listening, is needed for successful instructors. But learning these skills is just possible to learn during the job and could not be part of certification or curricula.

The findings of this study are in line with another study conducted by De Lyon and Cushion (2013) regarding the critical non-formal elements for a successful fitness instructor. And also, a group of personal trainers examined by Melton et al., (2010)

reported that participants of health clubs likely to stay with program if the instructor show the attribute of empathy, motivation skills and listening skills. Research examining administrative staff's attitudes regarding desirable exercise instructors' qualities confirmed that strong interpersonal skills are an important aspect for a successful relationship between client and instructor (Melton et al., 2010).

Certification in Fitness Instructor

The title exercise instructor or personal trainer does not provide any reliable or valuable information regarding professional expertise or competence. Without standardized certification, exercise instructors may not meet the participants' basic needs or to ensure the safety of participants. They may face a different bodily injury, even death due to the lack of information or negligence of personal trainers (Brathwaite & Eickhoff-Shemek, 2007). Commonly, for obtaining certification passing a written exam is the only requirement and its preparations often take 1-2-day workshop (Brathwaite & Eickhoff-Shemek, 2007). It means all certificates do not necessarily translate into a capable and knowledgeable fitness instructor, in another study managers of different gyms evaluated their fitness trainers. They believed that most college curricula and certification organizations do not consist the practical and applied skills needed to be a successful fitness trainer; therefore, additional course work would be influential for trainers and participants as well (Melton et al., 2010).

According to a study, certification demonstrates that fitness instructor could be able to complete a professional training curriculum successfully, and also it made the client confident about their instructors. There exists a solid understanding of academic content areas like exercise physiology and psychology, human anatomy, kinesiology, exercise prescription, design and implementation choreography, screening and testing protocols, nutrition. To develop a sufficient experience about different fields, some researchers recommend a bachelor's degree in sport sciences as a prerequisite for fitness instructors (Rupp, Campbell, Thompson, & Terbizan, 1999; Malek, Nalbone, Berger & Coburn, 2002).

For instance, in a most-cited research study, the educational background of the 115 fitness instructors was explored (Malek et al., 2002). The researchers developed an assessment tool called the Fitness Instructors Knowledge Assessment (FIKA). This instrument was used to provide measures of correlation about years of education, professional certification and training experience and fitness knowledge. The outcomes indicated that most of the participants in this study did not have college degrees. Five FIKA scales of nutrition, exercise prescription, health screening, and testing protocols were not correlated with years of experience. The researchers of this study concluded that having bachelor's degree, having an ACSM certificate or certified by national and conditioning association is essential for being powerful and knowledgeable fitness instructor (Malek et al., 2002).

A semi-structured interview was applied with 11 fitness instructors, who had completed the Register of Exercise Professionals certifying course by Gavin (1996). The aim of the study was to investigate fitness instructors' knowledge and how this is related to their practice as health and exercise professionals. The outcome of the study revealed that fitness instructors learn in various approaches, both formal and informal ways. Therefore, it is suggested by researchers that fitness instructors need for greater integration between the formal knowledge gained by an organization or education in university and informal knowledge developed through the working session as a fitness instructor. But the thought-provoking issue is those personal trainers with a low level of education interested in taking part in professional behaviors that help them fall beyond their area of competence (Gavin, 1996).

Although the impact of the level of education and the type of certification to be an effective fitness instructor has been reported in several studies (Anderson, Elliott & Woods, 2010; De Lyon & Cushion, 2013; Gavin, 1996; Hare, Price, Flynn, & King, 2000) but recent studies failed the importance of formal coach education in developing and enhancing the knowledge among the coaches. For example, in a study conducted by Stoszowski and Collins (2016), effective fitness instructors prefer to gain the coaching knowledge with using self-directed learning sources informally, observing others performance and learning through their job.

In a research review, researchers explored the approaches for use by different levels of education for improving their knowledge (Stacey, Hopkins, Adamo, Shorr, & Prud'homme, 2010). The results collected from 634 citations demonstrated that personal trainers with lower education levels used mass media sources, while personal trainers with a higher level of education relied on scientific journals. Through the years, evidence indicated that only a few of the certifying organizations are reliable and gave an essential knowledge for being an effective fitness instructor. For instance, some certificates are issued after training that is less comprehensive or limited training in workshops. It means all certificates do not necessarily translate into a capable and knowledgeable fitness instructor.

Due to this situation, various organizations offer some type of certifications to increase the knowledge of fitness and exercise instructors. For example, in 1960, the first organization that began certifying professionals as program directors was the American College of Sports Medicine (ACSM). Initially, it was concerned about increasing the competences of the fitness instructors in rehabilitative and preventative exercise programs.

ACSM Certification Development

ACSM relies on the expert attitudes of the most educated and experienced individuals in the fitness and clinical industry. The ACSM certification began in 1954, and it continues today. In 1954 the ACSM committee members perceived the need for standardization of the exercise testing and programming field. Through the years of 1960s, many researchers started publishing information about the benefits of exercise for rehabilitation and disease prevention in adults and sick populations. That's why the importance of standards and qualifications, exercise testing, and programming field was highlighted.

The committee members noticed that the fitness facilities and prescribing exercise programs, especially for patients who suffer from cardiac disease might not hold sufficient and acceptable qualifications. Thus, the initial goal of the committee was to define and evaluate the qualification of exercises designed for the sick population.

In 1972, an examination committee began to develop the first guidelines for the program director, the exercise specialist (was called exercise leader) and the exercise test technologist (was called exercise technician). The original committee members were 18 people with expertise and experience in specific areas that the guidelines needed to define. In 1982 ACSM introduced the fitness instructor certification as ACSM Health Fitness Instructor. It was part of its preventative track certification targeted to professionals who work with a healthy population. In 1989 ACSM added another certification program for dance exercise leaders and fitness directors. These programs were designed to identify the instructor, who has a higher performance of teaching techniques and demonstration of effective strategies of exercise science.

In 1990, the international dance exercise association introduced a personal trainer certification examination. It tested the minimum level of competency and theoretical knowledge essential for a personal trainer like 1) screening and evaluating the possible clients 2) designing an effective and safe exercise program, 3) increasing the clients' information about exercise techniques to avoid injuries and finally 4) answering to the usual questions and problems often occurring during a personal training session.

In 1991 ACSM added two major categories to the rubric such as nutrition and weight management. Candidate of health or fitness directors (now called instructor) expected to have a general knowledge of these two topics. And also, a great deal of information was added to the rubric like budgeting, market analysis, program evaluation, program and policy development and evaluation, managing conflict and data management.

In 1990s ACSM took a serious look at the quality of the exams applying for the fitness instructors. They realized neglecting the practical component due to financial and time. ACSM acknowledged that the written exam couldn't cover all the skills needed for a qualified fitness instructor. Therefore in 1994, ACSM decided to enhance the quality of the test by using an Objective Structured Clinical Examination (OSCE). OSCE was designed for medical groups in Europe, but most organizations primarily in North America displayed an interest in using it in developing analogous exam formats. The OSCE is an examination framework that evaluated the candidate's performance through a multi-station.

OSCE helped ACSM to improve testing objectivity and reliability. Advantages of this system are standardization of the procedure of examination, the candidates' direction as well as examiner direction. In the first step, ACSM implemented the new OSCE format for the exercise specialist. After the completion of the scenarios of test piloted internally and then refined the final format based on the results gained from the pilot. The exam was then conducted for a group of exercise specialist certification examination. Finally, the new practical component was administered officially about 1991-1992. Following the exercise specialist, OSCE format was used for exercise test technologist and health/fitness tracking as the rehabilitative track with little differences. ACSM consistently evolves the test development and procedure over the years to increase the quality of evaluation. Old tests items are evaluated and revised by the certification committee every year, both grammatically and statistically. For adding a new question, it must be a reference and ACSM should validate it after that members of the certification committee hold a meeting to determine the discriminatory of the items. The ACSM enhances the quality of its certifications by using these methods as well as keeping aligned with new researches and technologies.

Through the years, different studies were conducted to evaluate the different concepts determined by ACSM (Table 2.1). For example, Latin, Berg and Baechle (1994) investigated the accuracy of the ACSM and a new cycle ergometer equation for young-women. Participants (n=60 young women) performed a five-stage submaximal cycle ergometer test. It would appear that it provides a more accurate depiction of the cycle ergometer VO₂ power relationship for women. Therefore, the results support the ACSM's guideline for a cycle ergometer equation for young women.

Another study was conducted by Latin, Berg and Kissinger (2001) to evaluate the accuracy of the ACSM stair-stepping equation. Steady-state VO₂max was measured at six different combinations of step heights and step rates for 55 participants. All mean differences except the lowest were significant. The correlation between actual and predicted VO₂ was $r = 0.95$. It means the ACSM equation is an accurate predictor of oxygen cost of stair-stepping exercise.

Westcott et al. (2009) examined the effect of ACSM strength training guidelines in body composition and health enhancement. Participants (n=46) performed 8-10

exercise for the major muscles 2 or 3 times a week with 8-10 repetitions. ACSM training guidelines was used as an intervention in this study. The results revealed that ACSM training protocols provide significant mean differences for increasing lean weight and reducing fat weight in previously inactive adults. Therefore, the results proved that strength training guidelines of ACSM are useful for rebuilding muscles, reducing fat, and recharging metabolism.

Table 2. 1. *Studies used ACSM as a guideline*

Study	The aim of the study	Participants	Method	Results	Conclusion
Latin, Berg, & Baechle 1994	The accuracy of the ACSM and a new cycle ergometer equation for young-women	60 young women	Participants performed a five-stage submaximal cycle ergometer test.	It would appear that it provides a more accurate depiction of the cycle ergometer VO ₂ power relationship for women.	The results support the use of cycle ergometer for women.
Westcott et al., 2009	The effect of ACSM strength training guidelines in body composition and health enhancement	46 participants with different age groups	Performing 8-10 exercise for the major muscles- 2 or 3 times a week with 8-10 repetitions,	ACSM training protocols provide a satisfying means for increasing lean weight and reducing fat weight in previously inactive adults.	The results proved that strength training guidelines of ACSM are effective for rebuilding muscles, reducing fat, and recharging metabolism.
Latin et al., 2001	Evaluating the accuracy of the ACSM stair stepping equation	55 men and women	Steady-state VO ₂ was measured at six different combinations of step heights and step rates.	All mean differences except the lowest were significant. The correlation between actual and predicted VO ₂ was $r = 0.95$.	The ACSM equation is an accurate predictor of oxygen cost of stair-stepping exercise.

ACSM Certification

ACSM began the redevelopment process for its certified GEIs examination in 2018. The ACSM has a certification available for GEIs. They develop and implement an effective and safe exercise program to accomplish their client's fitness goals like increasing the flexibility, enhance muscular strength and endurance and body composition as well as motor skills. Getting an ACSM certificate, lead the GEIs to provide effective exercise programs using different techniques to motivate the clients' regular participation.

ACSM certification outline consists of four domains, including participant and program assessment, class design, leadership and instruction, and legal and professional responsibilities. Each domain describes what the GEI should do on a day-to-day basis. Among the four domains, higher percentage of the questions has been given to the leadership and instruction due to importance of this issue in the group exercise session. Each domain also consists of a list of statements that define what a GEI should know about his/her job to perform effectively (Appendix E).

For example, in participant and program assessment, there exist three statements including "evaluate and establish participant screening procedures to optimize safety and minimize risk by reviewing assessment protocols based on ACSM standards and guidelines", "administer and review, as necessary, the participants' health risk to determine if participation assessment is needed before exercise using Physical Activity Readiness Questionnaire (PAR-Q) (Appendix B), ACSM pre-participation health screening or other appropriate tools" and "screen participants as needed for known acute or chronic conditions to provide recommendations and modification".

2.3. Learning Community Approach

Instructors expected to be lifelong learners, but the majority of them used to be isolated far from getting updating and learning new things from different resources even from their colleagues. But the importance of enhancing the quality of their performance in their programs and increasing the satisfaction of their clients and motivating them to be more active caused to look at some advantages of learning communities. Learning

community started in the early 1900s and is one of the structures that bring teachers together to improve their knowledge and increase their student's outcome. Learning community approach defined as "groups of people who share a concern or passion for something they do and learn how to do it better as they interact regularly" (Wenger, 2015, p. 4).

Learning communities are grounded in social constructivism of Vygotsky (1978), who claimed that knowledge created collaboratively and learning arises through discussion and interaction in the social environment. Thus, the key elements of learning communities are the sharing of resources and ideas and the knowledge that takes place in a supportive social area. Learning community approach holds a great deal of promise in every educational setting.

In recent years many researches used different names for learning community in their studies, which most popular ones are professional learning community (Garet, Porter, Desimone, Birman & Yoon, 2001, Penny, 2006), communities of practice (Culver & Trudel, 2006; Jones, Gardner, Robertson & Robert, 2013; Trudel & Gilbert, 2004) and professional learning network (Flanigan, 2011) in coaching and educational setting. There is clear evidence that all various forms of learning communities are arranged to collect a group of learners to enhance learning. However, these three concepts seem to be related but are critically separate. Understanding the differences and similarities between these models helps researchers to decide which concept should be used in applying the intervention.

Difference between these three concepts has been introduced below in order to provide a basic understanding of the reason for selecting the professional learning community in this study (Table 2.2).

Table 2. 2. *Types of learning community*

	Professional Learning Network	Community of Practice	Professional Learning Community
Focus of Learning	<ul style="list-style-type: none"> • Personal use of online searches and social media to find and share resources that are aligned with professional development interests 	<ul style="list-style-type: none"> • Combination of learning strategy that creates a chance to manifest the goals with a small group of learners. 	<ul style="list-style-type: none"> • Focus on improvement of student learning within one school • Through regular face-to-face sharing and discussion
Group Size and Composition	<ul style="list-style-type: none"> • Includes all who wants to learn online, anywhere anytime. 	<ul style="list-style-type: none"> • Can be in a small group of participants to a large group of participants with the same area of interest. 	<ul style="list-style-type: none"> • All the volunteer staff or target group
Key Components	<ul style="list-style-type: none"> • It is Informal and voluntary, often introduced it as "do it yourself learning." • Learners use social networking and online tools to find information on their learning interests • The time is depending on the learners' interests and needs. 	<ul style="list-style-type: none"> • It applies by all teachers by one or more facilitators, • Learners collaborate to share and create knowledge • Typically, it occurs over one school year and can be through the life span. 	<ul style="list-style-type: none"> • Formal and maybe an obligation • Instructors work together to improve themselves and student outcome • It occurs through the school time for a limited period
Limits/ challenges	<ul style="list-style-type: none"> • Quality of information may vary and might not valid all time. 	<ul style="list-style-type: none"> • Quality dependents on facilitator's knowledge and participants responsibility to share their idea. 	<ul style="list-style-type: none"> • A small number of participants may limit ideas generated

Professional Learning Network

Professional learning network (PLN) is a system of interpersonal connections and resources. According to Flanigan (2012) PLNs supports informal learning and decrease teacher isolation. Using PLNs, teachers can connect to the worldwide to offer collaboration, advice, support and feedback. In PLN, teachers can collect information from various web sites and share resources that match professional development interests. All of the teachers anywhere in the world can connect with online. It is informal and voluntarily and described as "do it yourself learning". It means individuals based on their interests use social networking and online tools such as websites and wikis to find different resources. It made it possible to connect with learning network anywhere at any time. In PLNs learner feels responsible herself to reach out to make connections. The quality of the information on websites might be varied, and it depends on the individual to search and find valid information.

In a study, the aspects of the PLN for existing CS teachers were evaluated. The results gained from teacher surveys and observations over two years indicated that PLN was influential in changing the teachers' attitudes to learning and increasing their confidence (Cutts, Robertson, Donaldson and O'Donnell, 2017).

In another study conducted, the effect of PLN was searched through the analysis of data received from 732 teachers. This study indicated that PLN could respond to educators' diverse needs and demands and provide supporting the professional development of teachers (Trust, Krutha and Carpenter. 2016).

Due to fostering the technologies and importance of information and communication technologies (ICT), a study conducted to evaluate the potential impact of PLN for teachers. This research was undertaken in Australia and New South Wales in schools in suburban and rural areas. PLN of this research designed to improve teacher's ICT skills. The evaluation results demonstrated that well-designed online platform has the potential to provide a space for teachers to know how they can integrate their knowledge through a community.

Community of Practice

The community of practice (CoP) consists of three models related to Brown and Duguid (1991), Wenger, McDermott and Snyder (2002) and Wallace and Saint-Onge (2003).

Brown and Duguid (1991) developed CoP and identified it as a group of workers doing the same job, and everybody can participate voluntarily. Wenger et al. (2002) define the CoP as having the following characteristics: domain, community and practice and define as groups of people who set a problem or concern in a topic and try to extend their knowledge by interacting together. Wallace and Saint-Onge (2003) claimed that CoP could be used as a vehicle for improving individual and organizational performance with creating competitive context.

CoP may vary in size, location (Virtual vs face to face) and life span. In addition, it may be applied within an organization or may extend across organizations. It may form spontaneous or may plan and design intentionally by the organization.

In coaches' professional development literature, few studies focused on providing coach education by applying community of practice. For example, Culver and Trudel (2006) built a CoP to examine the coaches' learning process in skiing. In this study, the researcher reported that there needs to be highlighting the facilitator's role to understand and support the coach CoP. The researcher explained that he adopted the facilitator role that stopped functioning without an expert facilitators' presence. It made competitive coaching environments during the study prevents the coaches from building a cooperative and collaborative environment that nurture their practices (Culver & Trudel, 2006).

The same research group examined the sports leader's intention to develop a coaches' CoP in a baseball league. In this qualitative research, participants consist of a sports leader, league manager and five coaches. The study divided into three-part. In the first part, baseball coaches learnt to interact and share with other coaches. But in the other two parts, it was understood that coaches rarely share the secrets of their success unless straightforward issues like mentoring programmes or clinics. The researcher reported

that CoPs are most likely to occur among the coaches at the level of club or team with different coaches of the league, which is impossible to find in a competitive setting.

In the educational setting, CoP has a significant role in increasing pedagogical identities development. For example, in the study, six secondary school teachers from a school in the UK was selected to participate in a CoP to learn just four units of activity related to physical education course. Their observations and reflections, negotiation with their students and their dialogue with their colleague were observed, and participants interviewed, and their interaction through the CoP and social media were analyzed. The results revealed that CoP might be an effective approach for changing the traditional pedagogies to pedagogical innovation.

Professional Learning Community

In the current study, the professional learning community (PLC) was used as a vehicle to provide an environment where inquiry takes place collaboratively, decision-making happens together and develops ways to raise the satisfaction on their clients (DuFour & Eaker, 1998; Senge, 2000; Hord, 2004). Rather than working on alienation and isolation, instructors in PLC have a chance to talk, share and promote social relationships (Liebeman & PointerMace, 2009). PLC considers learning and searching the ways of improving the students' outcome by gaining new knowledge, teaching skills, and strategies to increase the effectiveness of the instruction.

The research in the learning community approach indicated that five elements should be considered in the building PLCs or teacher learning teams (Gilbert Gallimore & Trudel, 2009). They are as follows:

- i. Setting a stable environment for improving the learning: At the first step, there is a need for a stable environment to help teachers to interact together and improve themselves. (e.g., cancelling the meeting or losing the focus on the topic).
- ii. Homogeneous team members: The total number of a teacher learning team should be between 3 to 7 with the same grade level and the same subject area.

- iii. Guide the learners instead of prescribing: the program should have an outline defining the step by step the plan designed for the community to be familiar for the learner and help them to understand their duty.
- iv. Qualified and experienced facilitator: A facilitators' role is to increase the PLC participants interactions focused on teaching and learning and help them to improve themselves.
- v. Working to improve student achievement: PLC program aims to improve the knowledge and skills of educators through collaboration and interaction.

Based on Lieberman and Miller (2008), developing the PLC can be changed depending on the needs of educational organization, school or district. It can be focus on a discipline or a grade level to compromise a homogeneous group (e.g., teachers) or it can be applied by a heterogeneous group of teachers. PLC is not a simple way of teacher working together, nor a strategy for implementing a professional development without realizing its essential meaning. Instead, it is a way of professional learning that introduced to meet the needs of the setting, according to Lieberman and Miller (Lieberman & Miller, 2008). To reach to this goal, "A clear vision of what a learning community looks like and how people operate within it will offer insight into the steps that must be taken to transform a school into professional learning community" (p. 25).

PLC has three models described by Dufour and Eaker (1998), Murphy and Lick (2004) and Hord (2004). All these three models draw from learning organization theory (Bandura 1969). The six characteristics of PLC from Dufour and Eaker's perspective are 1) sharing the mission, values and opinions, 2) collective inquiry, 3) team working, 4) action experimentation, 5) regular improvement, and 6) goal orientation.

The second model of PLC is known as the whole faculty study groups (WFSG) and draws from Senge's learning organization theory (1990) and described by Murphy and Lick (2004). It is grounded in what is known about learning collaboratively. The five guiding principles for this model are 1) improving knowledge by teachers is essential for increasing the student learning, 2) everyone can participate, 3) importance of leadership, 4) equal responsibility, and 5) public work.

The third model is related to Shirley Hord (2004), which is based on the researches in school renewal and school reform conducted on over a decade. This model also is based on Senge's learning organization theory. Finally, according to Hord, an effective PLC program should have five characteristics including 1) supportive and shared leadership, 2) sharing vision/purpose, 3) collective learning, 4) supportive structural conditions, and 5) sharing the practice. Hord claims that supportive conditions cause collective learning and sharing the practice.

Recently, several studies were conducted PLC in the educational setting to find the effect of that in students' outcome. Based on a research review article (Dogan and Adams, 2018), 51 articles were using a kind of learning community for improving instructional practices or increasing the student outcome.

Six articles using PLC as a professional development model and reported the effectiveness of that on student achievement (Table 2.3). Three of them used a mixed method, two of them used the qualitative methodology and one of them used the quantitative approach for their studies. All six studies reported increased achievement of students of those who participated in PLC meetings.

For example, Sigurðardóttir (2010) implemented a study to improve student learning through conducting a professional learning community with professional staff and administrative team. The study applied in two phases with two aims. In the first phase, the relationship between PLCs and school level effectiveness was investigated, and in the second phase, the impact of the PLC on pupils' academic outcomes was discovered through the quantitative method of study. The results of the tests in mathematics and language demonstrated the increasing the students' achievement in another study (Chou, 2011) conducted with five elementary teachers in Taiwan. This qualitative study conducted by using two approaches, including PLC and action research for teachers' development. Although the results indicated increasing the student's achievement, the researcher neglected about paying attention to differentiating each approach. Obviously by using two methods, the results should be better, but it might be challenging to understand whether the outcomes affected by PLC or action research.

Williams (2013) examined the impact of weekly PLC meeting on students' achievement. In this causal-comparative and mixed-method research, the knowledge and skills on reading and language of students were assessed before implementing the PLC. The participants of the PLC meeting were 17 elementary, middle and high school teachers. The difference between before and after implementation was measured, and the results showed increases in at 33% in elementary reading, 75% in middle schools and 67% for high schools.

Huggins and his colleagues (2011) used PLC to improve student achievement. This qualitative research aimed to find how PLC is used to increase student achievement (Huggins, Scheurich & Morgan, 2011). Six mathematics teachers participated in this study, and written documents gaining from interviews and observations were used for interpreting the results. In this study, it was mentioned that three leaders provided teachers with resources and ideas that helped them promote discussions in a collaborative setting. The results indicated that PLC was influential in increasing the student outcome in high school level. The fifth study was conducted by Saunders, Goldenberg and Gallimore (2009) to find the effect of grade-level learning teams on student achievement at the elementary level. In this quantitative study, 890 students from nine schools set as experimental group and 988 students from six elementary schools set as a control group. The results reported the positive effect of the PLC meetings on the experimental group compared with the control group.

There are several studies with evidence that PLC might improve the teachers' instructional practices. Sigurðardóttir (2010) conducted mixed-method research to find 1) the relationship between professional learning communities and school-level effectiveness 2) impact of the PLC intervention on pupils' academic outcomes. This study conducted in two phases. In the first phase, the relationship between PLC and school level effectiveness was explored, and in the second phase, the impact of the PLC interventions on pupils' academic outcomes was examined. Researchers of this mixed-method study conducted in fourteen weeks reported that teacher collaboration focused on student outcome and learning was the best explanation of improved student achievement. It is also hinted that teachers who participated in this study reported increasing student achievement.

Jones et al. (2013) designed a mixed-method study combining the sociocultural theory framework and phenomenological approach. Sixty-five teachers from 28 schools, who teach K-5 science in the US, participated in this study to find the influence of the PLC on professional development. The results showed improving teacher practice and achieved its ultimate goal of increasing the student outcome. The researcher of this study paid attention to random selection, the validity of the instruments, using the theoretical framework and establishing a connection between qualitative and quantitative analyses were the strong points of this study (Jones, Garner, Robertson, & Robert, 2013).

Another study conducted with Tam (2015) to find out the influence of PLC meeting on teachers practices and beliefs. In this longitudinal study, ten art teachers, one department head and one vice department head participated, and the results revealed that effective PLC could be influential in teacher development. Williams (2013) in a causal-comparative and mixed-method research design examined the influence of weekly PLC meetings on students' outcome. 17 teachers of elementary, middle and high school level from 76 school participated in this study. After finishing the sessions and collecting data from students, results indicated that the PLC program was influential in the student's outcome.

In another study conducted by Chou (2011), five elementary teachers were invited to participate in the PLC program to explore the influence of that on teachers' professional knowledge. Four of the participants withdrawn and study continued by three teachers in this qualitative study. The results indicated that the PLC program provides the teachers with a chance to develop their professional knowledge. Huggins et al. (2011), in a qualitative case study, invited six secondary mathematics teachers and three leaders intending to increase their students' achievement. After finishing the PLC program teachers' sessions were observed and find out that they have changed their plan in their class like increasing student's engagement to heighten the students' awareness.

Jones et al. (2013) designed a mixed-method research design study with 65 teachers from 28 schools to explore the effect of PLC program on teacher's professional development. This sociological and phenomenological study showed that PLC

program increased the teacher's awareness about their instructional design and increased the students' achievement.

In the recent two decades, it is indicated that implementing PLC has a positive effect on student learning outcomes. For example, Berry et al. (2005) explored the impact of implementing the PLC at a rural elementary school over four years. The authors found that students' performance improved from 50% to 80%. In a research review about school-based learning community, the results indicated that student outcome could be increased when teachers participated in a PLC (Vescio, Ross & Adams, 2008).

Besides conducting several studies in the educational setting, many studies applied different types of learning communities except PLC to enhance the youth athlete's outcomes (Table 2.4). For instance, Falcao, Bloom and Gilbert (2012) examined the impact of the two-hour coach-training program in enhancing the youth developmental outcomes. Participants of this study were six youth sport coaches working in both competitive and recreational context. They used the developmental athlete outcomes (4 Cs) and the principles of Positive Youth Development. Findings indicated that not only the communication and cohesion of the participants were improved, but also athlete's competence, confidence, connection and character/caring were developed. Therefore, in this study, results supported the guidance for creating and delivering coach training community to enhance youth developmental outcomes.

Another study conducted by Garner and Hill (2017) explored the impact of a community of practice on the development of interpersonal and intrapersonal knowledge of eight international elite ski coaches. The coaches were encouraged to discuss their ideas with their peers; within six-week informal roundtable discussion. The researcher found out that the coaches develop their interpersonal knowledge through emotional intelligence and storytelling in CoP. Falcao, Bloom, & Bennie (2017) designed two hours coaching workshop with 12 youth sport head coaches to explore the influence of this workshop on their athletes' outcome. From a qualitative research design, the case study was applied, and after a period of time, coaches claimed that this program was influential in enhancing the athletes' outcome.

Bertram, Culver and Gilbert (2017) explore the influence of a CoP in four coaches' performances in a university setting. The results of this qualitative study revealed that CoP helps coaches to improve their knowledge about coaching strategies and enhance their athlete's performance.

Although there exist several studies used PLC or CoP for teachers and coaches, there is a lack of researches using these approaches to improve the GEIs knowledge to increase the satisfaction of clients about their adherence. The present study will be the first study in this area.

Table 2. 3. *Studies used professional learning community approach for teachers*

Study	Participants	Research Design	Objective of the study	Findings
Sigurðardóttir (2010)	Phase 1: Three schools with 1.800 grade 4-10 students and 157 teachers in total Phase 2: 92 teachers after intervention	Two mixed method studies. A correlational study (phase 1) and an experimental study (phase 2).	In phase 1: the relationship between PLC and school level effectiveness was searched. In phase 2: the effect of PLC intervention on students' outcomes was searched.	Findings indicated the changes in teaching instruction and improvement in students' outcome.
Jorden et al. (2015)	3 biology and science teachers	Mixed method design 1. Qualitative case study design 2. Pre-posttest design	Association between PLC programs and the changes in Teachers instructional development.	PLC program helped teachers to improve their instructions.
Tam (2015)	10 art teachers, 1 department head, 1 vice department head.	Longitudinal approach	The role PLC on teachers Practices and beliefs.	It is concluded that effective PLC could be influential in teacher development.

Table 2. 3. (Continued)

Williams (2013)	17 teachers from 76 school participated in this study. They were elementary, middle and high school teacher.	Casual comparative and mixed method research design.	The influence of weekly PLC meetings on students' outcome was examined.	Improvement in student achievement.
Chou (2011)	5 elementary teachers participated but 3 of them continued their participation.	Qualitative research design	The influence of PLC meetings on teacher' s development.	PLC meetings provide the teachers to develop their profession knowledge.
Huggins et al. (2011)	Six secondary mathematics teachers and three leaders were participated.	Qualitative case study	With the aim of increasing the students' achievement	Teachers changed their plan after PLC meetings to increase students' engagement to heighten the students' awareness.
Jones et al. (2013)	65 teachers from 28 schools participated to the PLC programs and 16 of them interviewed.	Mixed method research design: Sociological theory framework and phenomenological approach.	The effect of PLC program on teacher' s professional development.	PLC program increased the teacher' s awareness about their instructional design with the aim of increasing the students' achievement.

Table 2. 4. *Studies used learning community approach for coaches*

Study	Participants	Research Design	Objective of the Study	Findings
Falcão, Bloom and Gilbert (2012)	Six youth sport coaches working in both competitive and recreational context.	Multiple methods were used to collect data (no more information)	The impact of PLC program was examined in enhancing the youth developmental outcomes.	the PLC program was effective to enhance the athletes' outcome.
Garner and Hill (2017)	Eight international ski coaches	Qualitative research design	Six-week CoP meetings	Meetings developed both interpersonal and intrapersonal knowledge of coaches.
Falcão, Bloom, & Bennie (2017)	12 youth sport head coaches	Qualitative research design (Case study)	2 hours coaching workshop	Coaches reported enhancing the athletes' outcomes.
Bertram, Culver and Gilbert (2017)	4 National Collegiate Athletic Association Division	Qualitative research design	Exploring the influence of CoP on athletes' performance	Improvement in coaching and athletes' performance

CHAPTER 3

METHOD

This study examined the PLC intervention and its impact on the professional competencies and practices of GEIs. In this chapter, the method of the study concerning research design, characteristics of the setting, participants, data collection, and data analysis are presented under the following headings.

3.1. Research Design

Creswell and his colleagues (2007) underline five qualitative approaches to research inquiry: (a) narrative research, (b) phenomenology, (d) case study, (c) ethnography, and (e) grounded theory (Creswell, Hanson, Clark Plano, & Morales, 2007). Although these approaches have some common feature, they have differences in their core like the way of asking research questions, selecting the sample, collecting the data and data analysis. The current study is concerned with a group of exercise instructors who works in the Middle East Technical University (METU) sports centre. Considering the topic of interest and the characteristics of the study, among different approaches of qualitative research methodology, the case study approach was chosen.

Merriam (1998) described a qualitative case study as a holistic approach that aims to "*uncover the interaction of significant factors characteristics of the phenomenon*" (p.29). This approach involves an in-depth, detailed and highly focused exploration of the whole study process. Based on the Merriam (2009), the characteristics of the study is completely matched with the particular features of a qualitative case study that is as follows:

- Particularistic: The case studies focused on a particular situation, event, program or phenomenon. The case itself is fundamental for what it unfolds about the phenomenon and for what it might display.
- Descriptive: The final result of a case study is an intensive and detailed description of the phenomenon under study.
- Heuristic: Case studies clarify the reader's realization of the phenomenon being studied. They can bring about the exploration of new meaning, expand and verify the reader's attitude.

There are four types of case studies including 1) illustrative, 2) exploratory, 3) cumulative 4) critical. Illustrative type of case study was used for the current study since it is possible to explain all the procedures related to the intervention and participants' perception. In other words, providing much details related to the case or bounded system was possible by selecting the illustrative case study type. In the present study, the bounded system was "GEIs who work in METU Sports Centre".

3.2. Researcher Role

In the qualitative study, researchers need to explain their biases, assumptions and dispositions regarding the research to be undertaken (Merriam, 2009). Therefore, I explained the whole process, and I chose the topic of this research and the challenges I faced through conducting the current study. Then, I discuss my philosophical standpoint.

I worked as a GEI in fitness and yoga for years in Iran. Through the years, I participated in different workshops and training sessions to get knowledge about the way of motivating people to be more active and having a healthy lifestyle. As I was interested in this area, I started to continue my education in the master degree to focus more on this issue as a researcher.

My master thesis was a need assessment type of research to find the barriers of participation in exercise sessions and the reason for dropping out the physical activity (Mehrtash & Ince, 2018). Working on my master thesis enhanced my knowledge about this topic. It made it possible to participate in different sessions as a researcher and get

a chance to have a close connection with the students to understand their attitudes and opinions about participation in depth. The findings of my studies increased my understanding of the exercise instructor's critical role in motivating the students to participate in an exercise session regularly. That's why I decided to apply an intervention for GEIs to update their professional competencies and explore the effectiveness of the intervention on GEIs practices.

Therefore, I started to search for an appropriate research methodology to conduct my thesis. After considering various approaches, I realized that the qualitative research methodology could be the most suitable approach to get detailed information and deep understanding of phenomena. For conducting qualitative research for my PhD thesis, I participated in the "Qualitative Methods in Educational Research" course at METU.

According to Lincoln and Guba (1985), the human is the only appropriate instrument who can capture the continuously changing situation related to the human experience. In this study, I had a critical role in the entire research procedure, including designing, applying, analyzing and reporting the findings in this study.

Therefore, the readers of my thesis could have a look at the whole research procedure, as well as the findings of the study from my perspective. For sure, I, as a human can have biases and limitations that might affect my research. Instead of removing the subjectivities and biases, it is crucial to identifying them and monitoring them to know how they might impact the result of the study (Merriam, 2009).

In order to prevent human mistakes, I tried to be aware of my perceptions that might affect my interpretations of the whole process of study. Especially in the data analysis procedure, I asked my advisor to read and check my writings to be free of any personal biases and perception. I was worry and indecisive about capturing the right way of analysis of the data and not missing any critical point through the coding the process and constructing the theme. I moved back and forth between my data and literature. After getting the approval comment from the advisor, I continue the remaining process of the study.

During conducting the interviews, I tried to improve the skill of asking appropriate questions as an interviewer. I tried to keep myself away from imposing my opinions and ideas to the interviewees by preparing an interview instrument with concrete questions free of any personal attitude. As a GEI, I was familiar with the skills of an effective instructor, which I found very useful through the entire process of my study.

3.3. Study Setting

The target group of the study was GEIs of METU sports centre located in Ankara, Turkey. METU is a research university with more than 27.000 undergraduate and graduate students studying in 41 undergraduate programs within five faculties, five graduate schools with 105 masters and 70 doctorate programs.

According to the METU Directory of Sports, “There are various sports and recreation activities in METU sports environment, and the students can choose from a wide array of challenges for all skill levels. Active sportsmen/women or students, who wish to enhance their capabilities at sports branches, can engage in physical exercise with the guidance of an advisor or under the supervision of a trainer”. METU Directory of Sports offers “Sports for Health” program, which includes more than ten different types of group exercise programs such as Pilates, yoga, Zumba, freestyle combat. GEIs have the responsibility of planning and applying those sessions.

Previous needs analysis identified problems concerning planning and applying of the group exercises by the GEIs in the METU setting (Ince et al., 2014; Mehrtash and Ince, 2018). Dropout rates of the participants were high; physical characteristics of the activity settings were in low standards, including the hygiene, capacity, music systems; psychological need satisfaction of the participants were moderate; GEIs interaction with the participants before, during and after the sessions was minimal, and they have concerns about the opportunities provided for their professional development (Ince et al., 2014; Mehrtash and Ince, 2018)

The sample was selected from this university because the researcher was studying in this setting and had a chance to connect with not only the participants but administrative staff and instructors as well.

3.4. Sampling

Twenty-four GEIs were working in the sports centre of METU during the study time. Their communication addresses were taken from the University Directory of Sports. The researcher invited all of the GEIs via WhatsApp application to participate in PLC intervention for six weeks. Six of them responded to this invitation and accepted to participate voluntarily. \

Participants

Participants were four women and two men with an average of 10 years' experience of being GEI. Two of them were free-style combat instructor, three of them Pilates instructors and one of them was a yoga instructor. Their age range was between 33 and 43 years. Their years of GEI experience were changing between 1 to 15 years. Two of them had an undergraduate degree, three of them were Master of Science degree students, and one of them was a PhD student. (Table 3.1).

Participant 1- Evren

Evren was 34 years old, and he had twelve years' experience of working as a GEI. He developed freestyle combat group classes and educated many GEIs throughout the years. Evren was continuing master degree study in sports physiology field at a university in Ankara. In the sports Centre of METU, he was working as a freestyle combat and Pilates instructor. The fact that he was continuing his graduate education required him to have access to up-to-date scientific knowledge in the field.

Participant 2- Meltem

Meltem was 43 years old, and she had a one-year experience of working as a GEI. She had a master degree from the chemistry field, but she was interested in working as a GEI; that's why she quit her job and tries her best to improve herself in the sports field. Meltem received freestyle combat certificate a year ago and works as a freestyle combat instructor at METU. Unfortunately, Meltem changed her workplace and left METU; that's why I could not apply the second phase of the interview and explore the influence of the PLC program by observing her exercise session implementation.

Participant 3-Alper

Alper was 39 years old, and he had 15 years' experience of working as a group exercise instructor. He started his work at METU as a capoeira instructor fifteen years ago. He was working as a Pilate's instructor and working as a GEI sports Centre.

Participant 4- Zehra

Zehra was 41 years old, and she had 14 years' experience of working as a GEI. She was studying PhD in physical education and sports field and works as an administrative staff in the Directory of Sports at METU as well as working as a Pilates instructor. She, as a PhD student has to search and update herself about her field of study, which is relevant to health-related exercise.

Participant 5-Dilara

Dilara was 42 years old, and she has six years' experience of being GEI. She had a bachelor degree in sport sciences. Beside her carrier as a GEI, she was interested in working with disabled people (blind) and training them for Goalball game. She demonstrated much attention about topics of the PLC program and participated in discussions actively. To improve herself, she did not hesitate to ask questions to the group. After applying the first phase of the interview, Dilara changed her workplace and I could not interview with her to find the influence of the PLC program on her exercise implementation.

Participant 6-Serap

Serap was 33 years old and had two years' experience of being a yoga instructor. She graduated from the business department and working at METU management department as a research assistant. She was not experienced but kept herself open to learn new things. She accepted any kind of recommendation for her improvement (e.g., changing the list of music using in her yoga session). Through the six-week PLC program, she kept listening instead of talking, but she participated in all six sessions.

Table 3. 1. *Demographic information of the PLC participants*

GEIs' name	Roles	Age	Years	Education
Evren	Freestyle- Combat	34	12	M.S. student
Meltem	Freestyle- Combat	43	1	M.S. degree
Alper	Pilates	39	15	M.S. student
Zehra	Pilates	41	14	Ph.D. degree
Dilara	Pilates	42	6	B.A. degree
Serap	Yoga	33	2	B.A. degree

Facilitator

The facilitator was an academic staff working at METU as a lecturer for more than two decades. He had a coaching background. His academic expertise was in instructional design in physical education. The facilitator had more than a decade of experience in designing and facilitating PLCs (See Hunuk, Ince, & Tannehill, 2013; Kılıç, 2019). He was offering an elective health-related fitness class for more than 15 years in the university.

The role of the facilitator was to demonstrate the key elements and concepts related to ACSM dimensions by preparing the worksheets including the main topics of each session, listening to instructors' opinions and experiences, making it possible to share their information in a friendly environment and help participants to concentrate to the topic through the session instead of leading them to reach to the specific conclusion. He shared his experiences in the health-related fitness class to stimulate the reflections of GEIs during the meeting whenever necessary.

3.5. Study Timeline and Procedures

In the spring semester of 2019, six GEIs were invited to participate in weekly PLC to discuss ACSM domains. Before starting the PLC meetings, all six instructors' at least one exercise classes were observed with non-participant observation approaches, and the researcher took field notes. Moreover, Basic Psychological Needs in Exercise Setting Scale (BPNES; Vlachopoulos & Michailidou, 2006; Vlachopoulos et al., 2013) were applied to GEIs exercise class participants. The observation and the BPNES application at this stage aimed to understand the setting and the perceived autonomy, competence and relationship of each GEI's group exercise class participants and to use this information during the design and implementation of PLCs.

After that a six-week PLC program designed and implemented by the participation of six GEIs. Six-week PLC meetings were performed once a week for two hours long in a seminar room of Physical Education and Sports Department of METU. The duration of the intervention was based on the previous studies conducted PLC program for their study and reported the significance of that in teacher and coach development (Hunuk et al, 2013; Kiliç, 2019). The seminar room is equipped with a professional video recording system. All sessions were videotaped. At the end of the six-week PLC program, semi-structured interviews were held with all six GEIs (Appendix C).

Four months after the PLC program, two of the six GEIs left the study due to workplace change, and four of GEI's existing exercise classes were visited, and the transfer of knowledge and skills discussed during PLCs to exercise classes was observed. Finally, semi-structured interviews were conducted with four GEIs (Figure 3.1.) (Appendix C).

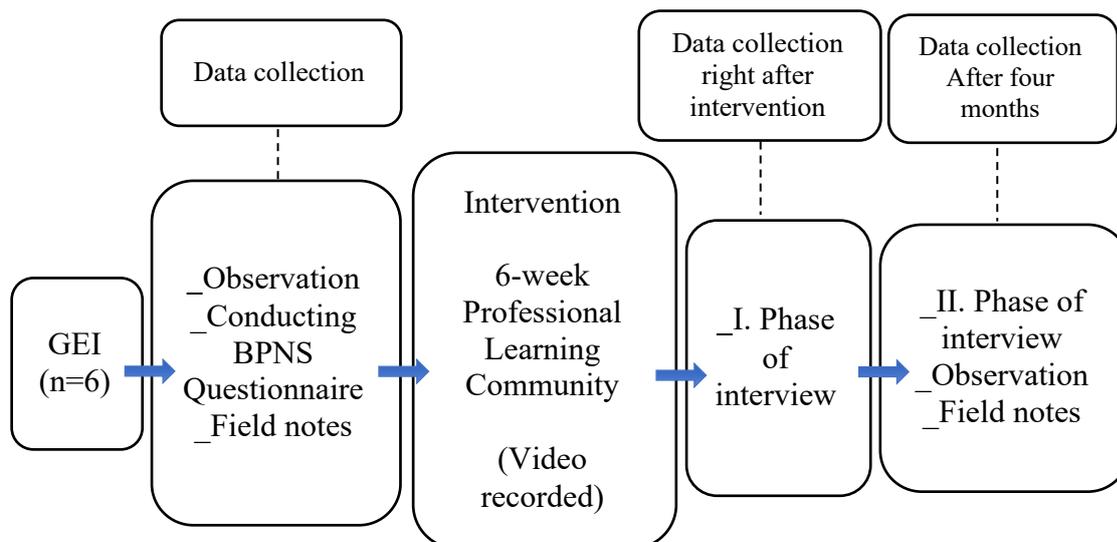


Figure 3. 1 . Overall design of the study and data collection method

3.6. PLC Design

PLCs defined as “groups of people who share a concern or passion for something they do and learn how to do it better as they interact regularly” (Wenger-Trayner, 2015). It is grounded in social constructivism (Vygotsky, 1978), which claims that knowledge is built collaboratively and that learning appears through negotiated interactions in contexts and communities. Along this line, the main features of the PLCs are, sharing of opinions and assets, and the learning that occurs in a supportive social setting. PLC is a kind of community of practice, which teachers learn the identified topic deeply in the form of a trusting relationship. It has six dimensions identified by Hord (2009), including a shared idea or perception, shared leadership, maintaining the structural conditions like time and place, reinforcing the relational conditions like trust and respect, and collective learning to upgrade learning (Hord, 2009).

ACSM’s (2018) professional competency standards for GEIs provided the content framework for PLCs. These standards have shaped the content that GEIs share, discuss and reflect on their professional practice. A booklet containing the content of each meeting was shared with the participants (Table 3.2). The booklet included the Turkish

translation of the four domains, sub-domains, and performance indicators concerning knowledge and skills of ACSM standards for the GEIs (Appendix E).

A facilitator-led the discussion in each meeting. At the first meeting, the facilitator shared the results of the previous researches conducted in the same context as a need assessment (Ince et al., 2014; Mehrtash & Ince, 2018) and the data of BPNES. The main goal of sharing the researches was to open the discussions on the needs and demands of the exercise participants in the setting. Accordingly, the GEIs shared their views and experiences about high dropout rate, aims and learning of students by participating in their exercise classes. They presented their recommendations about eliminating the barriers to exercise participation. The second to fifth meetings' topics were based on the four domains of ACSM.

The second meeting was related to “participant and program assessment” domain which includes three sub-domains, including 1) evaluate and establish participant screening procedures to optimize safety and minimize risk factors based on the guidelines of ACSM (2018) review the health risk of participation by administering different tools (e.g., applying Physical Activity Readiness Questionnaire), 3) screening participants' chronic conditions. During this meeting, GEIs decided to use the Turkish version of the Physical Activity Readiness Questionnaire (PAR-Q; Ertekin, 2018) by applying their exercise class participants and discuss their findings in the next sessions concerning their knowledge on the health of the participants.

In the third meeting, the topic was about “class design” as the second domain of ACSM with four sub-domains, including 1) establishing the purpose and determining a goal for each session based on the participants' needs, 2) defining class content to design an effective workout (e.g., FITT principles), 3) selecting appropriate exercises to provide a safe work out (e.g., variety of exercise used during warm-up, work out and cool down), and 4) selecting appropriate exercises based on the purpose of the class. The BPNES findings (needs analysis data) and PAR-Q findings of each GEI's class were used at this meeting for evidence-based discussions about the needs of exercise class participants.

Table 3. 2. *The topic of each PLC meeting through the six weeks*

Week	Topic
1	Introduction on the purpose of the PLC program and giving information about the barriers of the sport centres
2	Discussion about “participant and program assessment” as the first dimension of ACSM exam content outline
3	Discussion about “class design” as the second dimension of ACSM exam content outline
4	Discussion about “leadership and instruction” as the third dimension of ACSM exam content outline
5	Discussion about “legal and professional responsibilities” as the fourth dimension of ACSM exam content outline
6	Discussion about the perception and views of the GEIs about six-week PLC program

In the fourth meeting, the topic was “leadership and instruction”, which consists nine sub-domains including 1) consider about the class environment by screening the new participants, music, equipment, 2) creating a positive exercise environment by communication skills, behavioral strategies and effective motivational skills, 3) demonstrate the exercises in proper form to be sure about safe execution, 4) using the combination of verbal and nonverbal cues to enhance the safety and motivation among participants, 5) monitoring the participants’ movements to be sure about safe and effective exercise execution and correcting them by using feedback, 6) modifying the exercises based on the level of the individual or group needs, 7) monitoring the audio equipment following the industry guidelines, 8) responding the participants’ concerns and using techniques to prevent the confliction, and 9) educating the participants knowledge, adherence and enjoyment by providing health and fitness-related resources and information.

In the fifth meeting, GEIs discussed “legal and professional responsibilities”. The sub-domains were 1) evaluating the class environment (e.g., ventilation, lighter and acoustics), 2) promoting the participants’ awareness about the exercise intensity or classroom safety procedure to minimize risk, 3) following the ethical, business and industry-accepted professional to decrease the liability and optimize safety, 4) responding to emergencies to minimize untoward events 5) respecting to copyright based on national and international copyright laws, 6) following a healthy lifestyle to be a positive role model, 7) continuing education programs to enhance the knowledge and skills continuingly. The last meeting focused on GEI's reflection on the PLC program experience. In the discussions, the topics of the previous five weeks were used as the primary source for reflection.

3.7. Data Collection Instruments

There were two groups of data collection instruments: 1) Data collection instruments for needs assessment of GEIs exercise class participants, including BPNES and PAR-Q+, and 2) Qualitative data collection tools for the evaluation of PLC design and implementation.

Instruments Used for the Need’s Assessment of GEI’s Exercise Class Participants

Basic Psychological Needs in Exercise Setting Scale (BPNES): This scale is developed initially by Vlachopoulos & Michailidou (2006), and validated Turkish version of the scale (Vlachopoulos et al., 2013; Appendix A) applied to only volunteer exercise participants in the GEIs class by the researcher at the beginning or the end of an exercise session. After applying the questionnaire, data were analyzed, and the findings were shared with instructors for just increasing their information about their students. The application aimed to use as a data source in designing PLCs and providing a model for the GEIs in collecting, analyzing and evaluating data on their exercise class participants.

Basic Psychological Needs in Exercise Setting is rooted on the self-determination theory (Deci & Ryan, 2002;) and proposes the psychological needs for relatedness, competence and autonomy (Vlachopoulos & Michailidou, 2006). BPNES scale is a

self-report instrument. It includes 12 items for assessing to which psychological needs related to autonomy (four items), competence (four items) and relatedness (four items) are satisfied in an exercise context. Examples of items for each sub-scale are as follows: (“I feel free to make my own exercise program decisions”) for autonomy, (“I feel I have been making a huge progress with respect to the end result I pursue”) for competence and (“I feel attached to my exercise companions because they accept me for, who I am”) for relatedness. It is a 5-point Likert scale anchored by 1(I don’t agree at all) and 5 (I completely agree). The findings of this scale for each GEIs exercise group has been presented in table 3.3.

Table 3. 3. *The score of the BPNS for each PLC participants'*

Group exercise instructor	Autonomy Score	Competence Score	Relatedness Score
Evren (n=47)	15.87	15.38	15.76
Meltem (n=3)	16.66	15.33	18.00
Alper (n=20)	16.70	16.25	15.10
Zehra (n=35)	15.82	16.14	14.54
Dilara (n=20)	16.60	16.00	14.75
Serap (n=13)	17.32	16.84	16.00

Possible minimum and maximum scores for each subscale are between 4-20.

The findings indicated that Serap and Alper’s students had the highest perception of autonomy and competence among GEIs. The students of Evren, Meltem, and Zehra had the weakest autonomy, competence, and relatedness perception, respectively. In general, the highest perception of basic psychological needs in the exercise setting was in the autonomy perception, while the weakest perception was in the relatedness scale by the exercise class participants (Table 3.3).

Physical Activity Readiness Questionnaire (PAR-Q+): It is a tool for health screening before starting exercise, which is recommended by ACSM (PAR-Q+, 2018). Validated Turkish version of the questionnaire was used in the study by the GEIs (Ertekin, 2018). The questionnaire was provided to GEIs at the second meeting for their application.

Then, GEIs analyzed their class data and reflected on their findings at the third PLC meeting. The application aimed to develop GEIs autonomous data collection, analysis competencies, and evidence-based reflection skills on their exercise classes.

Qualitative Data Collection Tools for the Evaluation of PLC Design and Implementation

Non-participation observation: It is a method of collecting data that observer does not join to the situation being studied but is just an observer (Creswell, 2007). I participated in all PLC meetings, and PLC participants exercise sessions. During non-participation observation, I took field notes of all the critical issues that happened during the PLC meetings (e.g., almost all the instructors were satisfied with their participation to meetings, even Alper asked me if PLC program will be continued next semester or not?) as well as during the exercise session's implementation by instructors (e.g., Instructor explained the movement with details and asked one of the students to demonstrate it to others). I also paid attention to the PLC meetings impact on GEIs implementation. This information gained through the observations helped me to ask appropriate questions during the interviews.

The typical way of recording the data during the observation is field notes. The researcher records everything that has seen and heard by note-taking. They consist of two parts: 1) descriptive part, which includes a comprehensive description of the setting, people and events (e.g., all participants neglect applying some issues in their implementation like not paying attention about different level of physical activity among the students and not consider about planning a goal-oriented session); and 2) the reflective part, which provides for the observer's perceptions about the different procedure of the study like method and data analysis (e.g., applying questionnaire was helpful about enhancing the instructors' knowledge related to their students' needs) (Ary, Jscobs & Sorensen, 2008). In this study, field notes were used to validate the data collecting during the interviews.

Interviews: The aim of any qualitative research interview is to see the topic of the study from the interviewee's point of view. To achieve this goal, qualitative research interviews were using with following characteristics: a low structure enforced by the

interviewer, taking advantage of open questions and concentrate on specific situations and action instead of abstractions and common opinions (Kvale, 1983).

In the present study, the primary method of collecting data was face-to-face semi-structured interviewing. Conducting interviews made it possible to go beyond the limited quantitative data. The interviews aimed to understand the effect of the PLC on the GEIs' implementation of their exercise sessions. All six participants were interviewed in two phases. The first phase of the interview was conducted immediately after finishing the six-week PLC program to realize the GEIs' experience in the meetings. The second phase of the interview was applied to find the effect of the PLC program on GEIs exercise implementation in their sessions.

The interview questions were designed to help the researcher to receive detailed information about the issues. The questions of the interview guide were developed based on the careful review of theoretical literature and discussion with the advisor who is expert in this area (Appendix C).

The interview guide of this study consists of two parts, including demographic questions and open-ended questions (e.g., What kind of differences did you find in your health-related exercise program implementation comparing before and after PLC program?). The demographic questions aimed to gain some information about the participants' age, duration of working as GEI and highest level of education completed. The open-ended questions invited the respondents to discuss their personal experiences about PLC meetings and the effect of these meetings on their exercise sessions' implementation. According to Creswell (2007), the format of open-ended questions in a semi-structured interview not only help researcher to receive more detailed information consisting the interviewee's feelings and beliefs, but at the same time, it causes to be focused on the topic of discussion.

In the study, before conducting the interview, I explained the goal of the interview briefly through the WhatsApp application to all the PLC participants. And then, I arranged an appointment with each of them for the interview. A semi-structured face-to-face interview was conducted in a neutral environment, which was convenient for the interviewees, such as the respondent's office in the workplace or a cafe or a quiet

public place. Before starting the interview, I, as an interviewer explained briefly about the procedure of interview. Then I asked whether I could use audiotaping during the interview. And also, I mentioned about the interviewer's rights as a volunteer respondent and confidentiality of the process. The semi-structured interview lasted from 30 to 40 min.

Ary et al. (2008) claimed that because the interview questions are open-ended, and the interviewee has to remind his/her experiences during the interview, it might cause some anxiety for them. In this study, all of the participants did not seem uncomfortable just one of them asked about sharing the recorded voice with him only to review the issues that he had mentioned during the interview. The file was shared but requested him to do not share it with anybody and delete the file after listening to it. After finishing each interview, I appreciated the respondents for their contribution and time. I also provided the opportunity for the participants to ask any question about the interview and the purpose of the study. In the interview sessions, I asked the same set of questions from all six instructors. During the interview, I took quick notes about the verbal and non-verbal reactions of the instructors when I found it essential. I transcribed each interview verbatim after finishing all interviews.

3.8. Data Analysis

The data analysis is used by the researcher to make sense of data (Table 3.4.). In this study, all of the interviews and observations recorded by a sound/video recorder and field notes were transcribed verbatim. A general inductive thematic content analysis approach was applied for analyzing the raw data to identify themes. According to Thomas (2006), content analysis "allows [the] research findings to emerge from the frequent, dominant, or significant themes inherent in raw data, without the restraints imposed by structured methodologies" (p.238). The procedure of inductive thematic content analysis starts with a close reading of the text to identify and label the raw data. These labels were analyzed and organized into categories or themes (Creswell, 2007). After that, the category system was further refined, identifying subtopics and new insights. While similar in approach to grounded theory, the inductive approach avoids division of the coding process into open and axial coding and limits theory

building to presenting and describing only the most significant categories (Charmaz, 2002; Thomas, 2006).

Table 3. 4. *Data analysis by the research question*

Research Questions	Data Collection Instruments	Data Analysis
1. What were the GEIs' thoughts on the PLC program?	<ul style="list-style-type: none"> • Interview • Researchers' field notes 	<ul style="list-style-type: none"> • Thematic analysis
2. How did the PLC meetings take place in six weeks?	<ul style="list-style-type: none"> • Observation of video-recorded six-week PLC meetings • Interview • Researchers' filed notes 	<ul style="list-style-type: none"> • Thematic analysis
3. What was the influence of the PLC program on the GEIs' implementation?	<ul style="list-style-type: none"> • Observation of GEIs exercise classes • Interview • Researchers' field notes 	<ul style="list-style-type: none"> • Thematic analysis

3.9. Trustworthiness

There are three features for trustworthiness in a qualitative study, including internal validity, external validity and reliability.

The vital point in understanding the internal validity in research is the meaning of reality. Based on the basic assumptions of qualitative research, the reality is ever-changing and multidimensional. It means there is not a rigid, unchangeable reality to measure or observe. According to Merriam (2009) in qualitative research, it is essential to realize the outlooks of those happened on the phenomenon of interest, to demonstrate the human behavior in a contextual framework, and to provide a holistic

realization about what is happening. In this study, to understand how the results were compatible with the reality, data triangulation and peer check were used.

According to Hesse-Biber, Hesse-Biber and Leavy (2006) there are four types of triangulation such as method triangulation, data triangulation, investigator triangulation and theoretical triangulation. In this study, I collect all the different types of data like a face-to-face interview, non-participation observation and collecting field notes. Therefore, related to data triangulation, different kinds of data were checked and compared. Related to investigator triangulation, I involved my advisor in various parts of conducting the study, including performing the PLC, developing the interview questions, analyzing the data and interpreting the data.

In the present study, triangulation was used to bring all the sources together to converge the interpretations. After analyzing the data, I sent a copy of the analyzed data and all transcribed data to my advisor. I requested to check all of them to be sure about any biases or missing points.

External validity (generalizability) is related to extend the results of research in other circumstances. The aim of qualitative research is earning a detailed and comprehensive understanding of a case or a small sample instead of understanding what is generally true to a group of people. There are different strategies that the researcher can apply for increasing the external validity of the research such as deep, rich and comprehensive descriptions (Table 3.5). In the current study, I presented a detailed and thick description of the study's context. I also explained the data collection and data analysis with precise to enable the readers to decide whether the results of this study are close to their experiences and is possible to transferred or not?

Reliability deals with the degree of consistency and stability of the results. In the social sciences, reliability is a challenging issue because human behavior is not stable and consistent. In a qualitative study, the primary question is whether the results of qualitative research are compatible with the presented data. In the study, I used strategies to enhance dependability and consistency like the researcher's position, triangulation, and peer check (Table 3.5). I provided detailed information about the methods, procedures, strategy and decision-making process throughout conducting the

study. Through the completing the study, I kept research diary of my memos including my experiences, reflections and the questions, which pop up in my mind and the problems I encountered and the critical points received in the data collection procedure as well as data analysis and reporting the data.

Table 3. 5. *Strategies for increasing the reliability and validity*

Reliability & Validity		
consistency	Transferability	Credibility
Triangulation	Tick and rich description	Triangulation
Researchers' position		Peer examination
Peer examination		

3.10. Ethical Considerations

Before conducting the study, approval of the Human Subject Committee of Middle East Technical University was taken (Appendix D). During the study, the rights of each participant were protected based on the research guidelines of the American Psychological Association's (APA) Ethical Principles of Psychologists and Code of Conduct (2002). Before applying data collection procedures like interview and observation, I, as a researcher, explained the aim of the study briefly to the participants and mentioned that they could cancel their participation in any step of the study. The participants were informed that all of the recorded videos and audios would be used only for this research by the researcher and could be shared with supervisor committee. And all of this data would be kept in a safe place.

CHAPTER 4

RESULTS

This chapter presents the findings of the study based on the research questions. Firstly, their thoughts on the PLC experience are presented. Then, findings on how the PLC meetings took place through the six-week, and the influence of the PLC intervention on the GEI's practice are presented.

4.1. What Were the Participants' Thoughts on the PLC Program?

Findings of this research question depend on the analysis come from transcribed and analyzed interview data after the PLC (first interview). Four themes emerged under this research question: 1) participants' opinion about their participation 2) content of PLC program 3) need for updating 4) effect of the results of the questionnaire (BPNS-scale).

Participants' Opinion about Their Participation

Participants were generally satisfied with their participation to the PLC program. All of them expressed their satisfaction about their involvement to six-week PLC program. They stated that PLC experience widen their vision and also sharing their thoughts and experiences were valuable for them. For example, Dilara said:

It was undoubtedly a beneficial learning program. Thank you for your efforts. I got some excellent ideas on how to interact in the class and thoughts on creating effective groups. I have learned to develop better ideas and projects on issues such as class design, course flow, security and active participation.

And also, Alper said:

I was very pleased because I think it expanded our perspective about our job, provided us with vision, thinking differently and critically. I

think it was a different thing to know you, to know others, and especially the facilitator. Because the facilitators' academic knowledge is incredible, every word that comes out of his mouth, we listen to him with envy.

Evren said:

First of all, I satisfied with my participation. Being in this program made me happy. The elements that helped me were sharing the information in the same environment with my colleagues. At the same time, I am pleased that those elements shared with us were taken from international booklets and materials. It also helped me for self-improvement. It was mostly about generating our ideas; that's why I did not feel uncomfortable. I was happy, and I did not have a hard time sharing my thoughts.

Content of the PLC Program

Almost all of the participants explained the four main topics of the ACSM outline were very helpful for them as the content of the PLC program. But issues related to students' health history and level of physical activity (related to the participant and program assessment), motivational techniques (which is related to leadership and instruction) and being goal-oriented through the semester (related to class design) were mentioned more by the participants.

Evren mentioned that he had already applied most of the topics that were discussed through the PLC program. But he emphasized about the issues that he learned through the PLC program. He said that the PLC program helped him receive intensive knowledge about four domains of the ACSM standards for GEIs as an international resource. Evren answered:

Related to 'legal and professional responsibility' I learned to prevent about happening any kind of injuries and take care of myself to stay away from being under suspicion [after using PAR-Q+]. The people who develop health-related programs are under this risk. But because we have a good connection with participants, we transfer this duty to them. Related to 'leadership and instruction' of course, I learnt many things. Before participating in this program, I was aware of applying these issues, but after participation, I started to think deeply. For example, if we have three ways of teaching for a movement, it might be better to teach the right and the most fluent type. Related to "class design" I already apply it to my group exercise session. We generally try to find the appropriate one in our sessions. Related to 'participant

and program assessment' I think this topic was the most critical one. In my opinion, all of my colleagues who works in this field should be informed. We should learn how to change the participants' profiles to a better one. PLC program helps us to pay attention more about the issues that persuade (motivate) the participants to join the Health-Related Fitness programs.

During the interview with Meltem, she emphasized the positive effect of the PLC program on her practices and helped her to widen her vision related to group exercise programs. I asked her to share the topics that she learnt through the PLC program and the elements that were informative and helpful for her. Meltem answered:

The discussions, which had the most comprehensive percentage, especially in the leadership and teaching (instruction) part, were good. The class design was also impressive, but because it involves some more physical conditioning, I am more interested in this topic. We talked about motivation techniques. Was there anything about stress management? It's like I have something in my mind. Stress management principles and practices. How to understand people who have problems with people! Dilara (one of the PLC participant) shared her experience that happened (in the sports Centre with one participant as an argue!). It was interesting to talk about them. Or the practical knowledge of the Evren in the gym was good. It was nice to listen to Zehra's research (related to physical activity level among the students). I read it from time to time, and I am familiar with the test, but more than a test, there is a lot of information and researches (That I learned). I like to try and have an idea of encouraging more people to do exercise. It makes me enthusiastic. What else have I learned? There was a new sport played by people with disabilities (Goalball!). I've heard the name of that sport for the first time that I have never heard before. These are the remnants of the information that were shared (in the PLC program). I'll take another look! It would make more sense if I brought my notes! (She mentioned that she took note of the topics interested in through the PLC program).

Another participant, Alper mentioned the importance of the communication with students, and he elaborated the importance of the topics discussed in PLC on his own practice in this way at the interview.

All that we have learned is on the sidelines, and I will try to put all that I have learned into the next course. As in the example we have just given, it is like communicating with students before and after class. This is the simplest. I will try to share all the information with them I have received during these six weeks. What I can think of now is to have more frequent dialogue with the students, to learn what they expect from this exercise program, and even to change the content of the lesson based on their expectations". We've discussed almost everything if I'm not

wrong, including safety, classroom design, leadership and instruction, legal and professional responsibility. The class design is almost similar to my field. I feel like I'm good at this. I was very interested in leadership and instruction. Legal and professional obligations also attached my attention, and I understood that I had to fall more on this issue. A little, how can I say, we have highlighted some information, and we understood that we need to add some information to our program.

Need for Updating

During the interviews, all the participants mentioned their desire to keep themselves align with the new information in different ways. For example, Zehra stated:

I'm always trying to improve myself because this (knowledge) is something that can change every day. Today, while it is recommended to do a movement in a form, the next day, it will report that way is wrong, and you have to change the way of conducting. So, I'm always trying to keep myself up to date. If I always stay at my level, I may apply the wrong way. So, I'm always trying to be as careful as I can. If someone warns me, makes a suggestion, I'm not ignoring him or her. I keep their suggestion in my mind. If you don't, then we'll continue a wrong way. We also do not benefit the participants properly. Because they are trying to learn from us, if I teach wrong, they will learn and continue in the wrong way.

Also, Alper said:

I don't go to the library and search for books, but I always look when I see something about my professional knowledge on the internet, on social media, and so on. Does it match with my knowledge, which one is true if anything is conflicting? I'll do my search on that. Unfortunately, I can't say that I've done a lot of research because I'm having trouble with time.

Evren answered to this question and stated:

Normally, I use. In addition to the searches, I do for my master degree education; I do research related to my field of study. I naturally have a chance to find many articles related to both inside and outside of Turkey. This program (PLC) supported me in this issue. If you do research, you can improve yourself. [Considering PLC] It is not limited to just one person; instead, it is a kind of collective information that you can reach to a valuable result finally. I think it was beneficial for me.

When I asked Meltem, whether she used different sources like book, web resources or articles to improve herself, she answered:

Yes, I asked ... (the name of the facilitator) to recommend a book for me. I just wanted it. But I had already bought some books because I was thinking about doing a doctorate in the physical education department. I also benefit from them. I benefit from the internet too. I've searched for different sources. I was more interested in searching the internet, and I developed something while chatting with my friends who are instructor as well.

She mentioned that she was receiving Pilate's course and had a training session via YouTube from Istanbul. She noted that she had tried her best to improve her knowledge related to anatomy to understand the muscles actions during the movement.

Effect of the Results of the Questionnaire (BPNS-Scale)

Before starting the six-week PLC program, the researcher applied the BPNS scale for students of the PLC participants. After analyzing the results were shared with the participants through the meetings.

The result related to Zehra's sessions revealed that almost all the participants' needs satisfied in her exercise sessions, comparing with other PLC participants. She believes that different issues can affect the results, firstly she has the highest number of participants among the instructors and secondly her efforts to make the connection with participants cause these results. When I asked the reason for that through the interview, she expressed:

I was positively impressed by the opinions of the people and made me feel motivated. I tried to treat them more encouragingly so that they could go above and beyond the data we got. He made positive contributions. You see yourself, what you are doing? I'm doing something good, and I am trying to do better. We found out that there are a lot of issues that we missed through the works. For example, people who participate in our sessions come and join our session without giving information about his/her desires. We don't have a chance to speak individually. If people tell us something, we can only help with what they say to us. But the person is coming, and there is something s/he wants to do, but we don't know unless s/he tells us. We don't know a person's condition because there is no supervisory mechanism, and we don't apply any questionnaire or physical activity test. Then the person came, and maybe our exercise program did not meet his/her needs, we cannot understand his/her progress. These issues are our weak points. We saw that these issues should be evaluated. Again, we are trying to do classes at a general level since we do not know the level of all the participants while designing the classroom. Maybe after identifying the participant's levels, we can plan

the programs to meet their needs. We've learnt things like them. I don't think there's anything else.

In Meltem's result, it was indicated that the degree of relatedness of the students among the Meltem's students was highest comparing with other instructors' results. After discussion, it was found out that although the number of the students of Meltem was lowest, Meltem knew them for a long time as a friend. That's why they feel a strong connection. She emphasized:

I am glad (for the results). It is because of my enthusiasm, my energy and my love. But it is already reflected in this lesson. I was afraid to ask for the phone numbers at first, but I asked them to give their phone number to reach them easily. Now we have a small group (via WhatsApp) therefore I can inform them about the cancellation of the session before administrator staff or informing them about changing the place of the session.

The results of the questionnaire (BPNES) for Dilara's session was lowest related to relatedness in comparison to other GEIs. It indicates that her students do not feel high relatedness to the exercise class/activity and their instructor. During the PLC programs, the results were shared with her. It was expected to find a solution to this issue. She told that after being aware of the results, she tried to change her style and instead of focusing on just applying the movements she tried to find a way to increase the connection among the students. She stated:

I observed that the group's relatedness (relevant to the questionnaire) was low as compared to other GEIs classes. In PLC, I developed something for myself in line with the conversations we had, and as a result of these, I tried to apply it in the sessions. Inter-group interaction, relatedness increased. That made me happy.

Evren mentioned about the effect of the questionnaires' results in his practices. He stated:

I found out more information about my students' demands. I realized that if my exercise sessions are based on the students' needs or not? Related to their health issues, I learnt that I should be careful if someone has a health disorder and try to inform them during the exercise to prevent hurting him/herself.

Serap stated about the influence of the questionnaires (BPNES and PAR-Q+) on her practices. She answered:

I have a student who regularly comes in my session, and I know her from the previous semester. Although I asked everybody about

informing me about the existence of any kind of sicknesses this student did not inform administrative staff and me as well about her epilepsy, which is one of the critical sicknesses especially in yoga which changing the volume of the light or doing some poses that could be cause a shock. This was the most important information that I took advantage of the questionnaires.

Alper talked about the influence of the questionnaires in his exercise session implementation. He explained:

I have another exercise session in a club. Due to having more time there, there is a possibility of spending time together outside of the club. Therefore, they could ask about their problems or share their experiences without any hesitation in a friendly environment. But here in METU, it is impossible. Because all of the participants have limited time and have to go back to their office or class immediately. Moreover, the time of the exercise session is just 50 minutes which is so short. We just could do the exercises and nothing else. But the questionnaire results and the issues discussed through the PLC program helped me to be aware of the needs of the students in METU. I realized that although we have time limitations, I should give some time even very short for communication and answering their questions or maybe sharing some important information.

4.2. How Did the PLC Meetings Take Place in Six Weeks?

Under this heading, how the PLC meetings took place through the six-week by the information arose based on the needs of the GEIs, and the PLC intervention's quality in meeting the Hord's (2009) PLC criteria are presented.

a) What Kind of Information Arose Based on the Needs of the GEIs in PLC Meetings?

This section presented the findings derived from the second research question of this study that revealed the way of applying the PLC program and the interaction of the PLC participants with each other. All six-week meetings of the conducted PLC program explained in detail based on the transcription of the recorded videos through the meetings and researches field notes. Firstly, the topics related to ACSMs' sub-domains were presented that demonstrate the topics that were planned for discussion in that meeting. Then themes identified based on the issues that were talked about and arose based on the needs of the PLC participants.

First meeting

The topics discussed in the first meeting were:

- 1) The fundamental purpose of the PLC program.
- 2) The barriers to participation in health-related exercise classes.
- 3) Some suggestions for informing the students.
- 4) The reason for involvement in the PLC program.

1. The fundamental purpose of the PLC program

In the first session of the PLC program, the facilitator explained the aim of the six-week PLC program to improve the GEIs' content knowledge based on the findings of previous studies that conducted as a need assessment (Ince et al., 2014; Mehrtash & Ince, 2018). It was said that the present PLC is based on a job task analysis for the ACSM certified GEIs. Then, each of the ACSM professional competency domains was talked in general terms, including 1) participant and program assessment 2) class design 3) leadership and instruction 4) legal and professional responsibilities. It was mentioned that the four dimensions of ACSM would be used as a reference, but new topics might be discussed based on the needs of the group (e.g., the problems originated by the administration).

2. The barriers to participation in exercise by students

Different barriers to participation in health-related exercise programs were shared. For example, it was mentioned that most of the time, students refuse about participation due to not finding the exercise sessions align with their expectations. Or they find out that the intensity of the session was not based on their level of physical activity (beginner, intermediate or advance). Among different barriers of participation, it was emphasized that the main reason for dropping out of exercise session was because of time overlapping the session with their midterm and final exams. Zehra who had general information about the Sports Centre's participants due to working as administrative staff mentioned about another point that was related to the person's beliefs like the presence of men in the session. She explained that a small percent of the women participants asks to register them in a course without any male participant.

Although the number of men is a low presence of them may cause of dropping out by some female participants.

Another discussion issue was about the participant's lack of information about the type of exercises that they are going to choose based on their health position and level of physical activity. Although the majority of the students selecting the right kind of activity for themselves, a small percentile of them may choose wrongly that it can cause a severe problem for themselves and instructor as well. It was mentioned that before registration, a form has been filed and signed by the students claiming that they had not any health disorder that prevents them from participating in any type of exercises. But having not any health disorder does not mean that they can participate in any kind of exercises because, besides students' health situation, their level of physical activity was crucial as well. Thus, giving information about each type of exercises offers by the sports Centre in the form of the booklet can be helpful.

3. Some suggestions for informing the students

The PLC participant suggests that sports centre administrative should provide a free booklet, including the description of each type of exercise sessions for all students. It is also recommended by one of the PLC participants that an orientation day for everybody interested in participating in exercise sessions can be developed, and through that day all of the instructors can explain and demonstrate the content of their exercise program as an example.

Unfortunately, all of the PLC participants claimed that most of the students could not recognize what type of exercise is appropriate for them that is one of the main reasons of dropping out of the exercise program by them. For instance, it is explained that one client who had cardiovascular disorder decided to participate in freestyle combat that categorized in a high-intensity type of exercise. Although she was informed and warned during the registration time and by her freestyle combat instructor during the first session, she insisted and showed her interest to participate just in freestyle combat session. But after just passing the first choreography of the session, she left the class and asked to change her type of exercise. It is mentioned that these kinds of things

happened several times that most of the time causes dropping out the exercise session by the adherence.

The other discussion topic was about physical activity levels. Zehra, who was a PhD student as well as being a GEI instructor, has researched the level of physical activity among the students. The facilitator asked her to share the findings of her study with the participants of the PLC meeting. She reported that just 35% of students were active enough to maintain health-related fitness that was too low. She added that she translated the five booklets about different exercise stages (Transtheoretical Model) from English to Turkish to give information for the target group of her study. Of course, she emphasized that it was not enough to motivate the students to participate in the exercise. They need to be supported by a GEI to be effective. The facilitator shared a questionnaire used for measuring the level of physical activity. It was said that based on the result of this questionnaire we had to create five (with ignoring the relapse level) different environments because each exercise stages needs different strategies to motivate for adherence and increase the participants' physical activity level. And also, it was emphasized that sport Centres participants came from just two levels of physical activity, including action and maintenance.

4. Purpose of participation in the PLC program

Finally, the facilitator asked if all the PLC participants want to continue the next five meetings or not? Each participant claimed that they were interested in the PLC program, and they wanted to continue. One of the GEI stated:

“I am sure that it will be meaningful for me. At least we will discuss the results of the previous studies conducted in our sports centres”.

Meltem mentioned that she expects to learn more from her colleagues in this program and find the reason for having the lowest number of participants and exposure her weak points to improve herself more in her carrier. Dilara said:

“I guess it will help me to improve myself. I am a person who is open to new things and want to be updated and observing myself inside this group and improve myself if it is needed”.

Zehra, who works both as Pilates instructor and administrative staff, stated that she would be helpful in this program by informing the barriers of administration department about improving the group exercise programs.

Second Meeting

In the second meeting, after giving the summary of the first meeting by the facilitator, the booklet about the four dimensions of ACSM was shared. It was translated form of the ACSM’ domains for GEIs (See Appendix E). Based on the schedule, the main topic of the second meeting was about the first domain “participant and program assessment”. The facilitator mentioned about three sub-domains, and then the group started to the discussion of them.

The topics planned for discussion in the second meeting were:

- 1) Evaluate and establish participant screening procedures to optimize safety and minimize risk factors based on the guidelines and standards of ACSM.
- 2) Review the health risk of participation by administering different tools.
- 3) Screening participants’ chronic conditions.

Transcriptions of the meetings were examined and coded under themes (Figure 4.1). They are presented below.

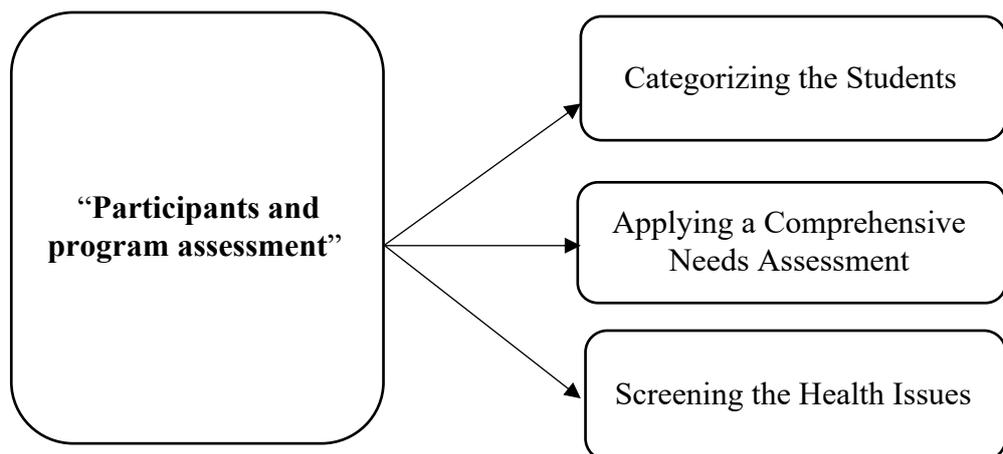


Figure 4. 1. Themes discussed under the first domain of the ACSM

First Theme: Categorizing the Students

Based on the results of the previous studies (e.g., Mehrtash & Ince, 2018), presence of heterogenic distribution among the participants based on their levels of physical activity (beginner, intermediate or advanced) and health situation (e.g., cardiovascular disease or knee pain) that are some of the problems among the exercise sessions. In this way, GEI has to apply different choreography appropriate for different groups with additional needs. It was discussed that if there was a possibility of categorizing the students in sessions based on their level of physical activity and health issues, both GEIs and students could benefit from this. Zehra stated:

There is a woman in my session who suffers from severe back pain. Whenever she comes, I forgot my schedule, because all of my attention goes to her and me afraid about performing a wrong movement by her and making a problem for herself. This makes me uncomfortable.

PLC participants shared their experiences related to happening a problem for some students in their exercise sessions. For instance, it was said that one of the students fainted because of decreasing blood sugar. In addition, the facilitator explained one of his students experienced a shock due to having an epilepsy disorder. Because of these kinds of experiences, all of the PLC participants were unanimous that before starting the new semester all of the students should fill a comprehensive form including questions related to health issues of participant and family background to prevent facing similar problems mentioned above. It was added that most of the students have not knowledge about a healthy diet or healthy habits. For example, most of the students neglect eating breakfast or ignore about eating enough carbohydrate to lose weight fast. These bad habits might impact their performance in their life, especially when they have physical activity.

Second Theme: Applying a Comprehensive Needs Assessment

It was mentioned that before the registration time, the only question had been asked was 'Do you have any kind of health problem issue? If your answer is yes, please name them below'. Registration staff leads them based on their answer. But the needs assessments' results indicated that this single question does not help registration staff to categorize the students in different sessions based on their needs and abilities. A

comprehensive form of scale is needed to reach this goal. Zehra claimed that during the registration time, she always scans the students visually and did not let them to register in a session with high intensity (e.g., freestyle combat) if they were overweight or report that they had a cardiovascular disease to prevent about happening knee problem or cardiovascular problem. At the same time, if they were in the good physical shape they could not participate in a low-intensity type of exercise (e.g., fiziogym which is appropriate for people who suffer from different health disorders like knee pain or back pain, etc.). Zehra added:

One of the students explained that she wants to participate in fiziogym, which consists of very light movements, and most people who have health problems participated in this course. But after seeing the student, I can understand that s/he is young and has not any physical problem. In this situation, I step in to find the reason for his/her selection.

In addition, it is mentioned that in a critical situation if the student had any kind of health disorder like heart disease, registration staff would have been advised him/her to meet a doctor to be sure that there was no limitation about participation to the exercise sessions. The facilitator explained that these kinds of assessments were not valid enough to decide about the appropriate exercise type. Application of a more detailed questionnaire/data collection could help the GEIs to be more knowledgeable about their students' health situation, level of physical activity and their needs and demands for participation. Just in this way, s/he could be confident in sustaining the exercise.

Third Theme: Applying a Health Screening Questionnaire

It was mentioned that in critical situations like having heart disease, students should be asked to provide a letter from the physician that any kind of movement would not be harmful to them. These kinds of forms about the health situation of the students can be helpful for both students and instructor away from facing unforeseen problems during the session. The facilitator shared a questionnaire (PAR-Q+) as an example to give an idea about the way of getting more information related to the health situation of the students. It had discussed that it should be applied before starting the new semester by someone another than the GEI and informing the GEIs about the results. And also, it was suggested that students with severe health issues might be directed to

the Health Centre. It was explained that most of the time students hide their health problem; that's why they did not go to a physician. But asking them to see a doctor and getting a letter showing detailed information about their health might be useful.

Facilitator added that besides the physical situation, GEIs might be better to know some psychological knowledge. Because being aware of the students' feelings was as important as their physical situation. A questionnaire was shared (BPNES) with the PLC participants as an example to find out the participants' basic needs satisfaction that was used for understanding if the students' basic needs and demands had been satisfied through the sessions or not?

Another topic that was discussed in the second meeting was about knowing physical fitness. It was said that GEI should be knowledgeable about improving the different parts of the body at the same time. Focusing in just specific parts of the body (e.g., chest) and neglecting the other side (e.g., back) could cause the physical problem for students, especially adolescents who are during their growing period. For instance, in aerobics instructor tries to play with the heart rate by increasing and decreasing the intensity of the choreography. An experienced aerobics instructor might apply this unless s/he would face with a kind of health problem during the session.

Finally, the collective opinion was as applying a comprehensive questionnaire including all questions about health issues as well as giving brief information about the exercise sessions.

Third Meeting

For the third meeting, the topic was "class design" with four sub-domains on the ACSM standards for GEIs.

The issues that were planned for discussion based on the sub-domain of the ACSM in third sessions were:

- 1) Establishing the purpose and determining a goal for each session based on the participants' needs
- 2) Defining class content to design an effective workout
- 3) Selecting appropriate exercises to provide a safe work out

4) Selecting an appropriate exercise based on the purpose of the class

Analysis of the data indicated four themes, including the level of physical activity, goal-oriented class design, providing safe work out, and selecting appropriate teaching style (Figure 4.2).

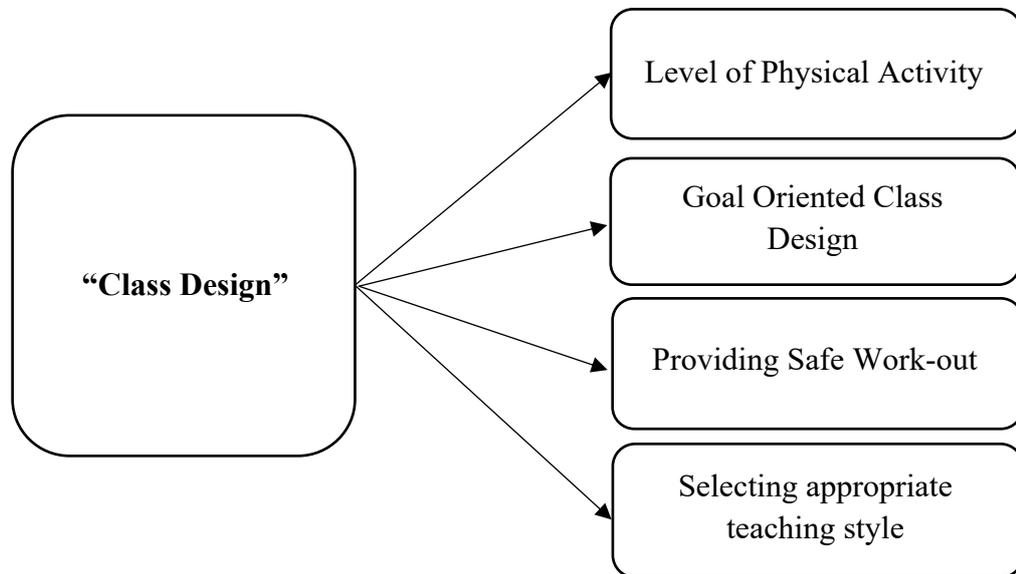


Figure 4. 2 . Themes discussed under the second domain of the ACSM

First Theme: Level of Physical Activity

At the beginning of the meeting, the facilitator shared an article about Exercise Stages of Change. He explained that by applying this approach they could categorize students in one of the five stages of exercise, including 1) pre-contemplation (in this stage, people are not exercising and do not have an intention to participate in the exercise in future too), 2) contemplation (in this stage, people have an intention to participate in exercise but do not participate), 3) preparation (people of this stage are planning to participate in an exercise program or have just started), 4) action (in this level, people participating in regular exercise at least one month to six months), and 5) maintenance (people in this stage participate in regular exercise more than six months).

Because people in each stage needs a specific type of support, the facilitator recommended it to PLC participants to use in grouping the students and considering exercise motivation strategies suitable to the group.

GEIs mentioned that because of decreasing the participation after one month, opening different sessions based on the level of participants is impossible. That's why PLC participants were asked to categorize them in their session based on their ability and level. It is discussed that some students based on their physical and psychological condition, demands extra attention comparing with others. For example, if someone suffers from back pain should be worn by the GEI to do not perform a movement, which can decrease the pain or modify the activity in a form that helps them to heal that part of the body.

Then, various strategies were discussed for improving the level of physical activity among the students. For instance, it was suggested that parking the car in a place a far distance from the target place might force the person to walk and also using step counter to keep 10,000 steps per day.

Second Theme: Goal-Oriented Class Design

Serap claimed that some types of exercises are applicable everywhere with everyone, even on the grass without any shoes. "For example, freestyle combat instructor should be aware of the health situation of the participants, especially their cardiovascular situation. But Pilates and yoga instructor had been applying the movements to increase the ability of the students to stay in the position or just repeat it without considering the students level. But facilitator mentioned that to be an effective instructor, planning and designing the class instruction based on the level of the students is an essential issue. The facilitator claimed that, if we had 20 sessions until the end of the semester, we should plan to be effective totally. If we could not implement each session based on the designed plan instead of being disappointed, we should see the big picture and be sure that we could reach our goals until the end of the semester.

The facilitator explained his experience with a strategy that is used by athletic coaches. He gave an example about a coach who writes the aim of the session on a whiteboard each session and expects all the athletes to read them and work based on that. In this

way, all the athletes with the higher motivation of preparing themselves for competition, are aware of their duty and coaches' expectation. The facilitator mentions that in exercise classes it might not be applicable to write on the board, but GEI has to identify his/her long-term goals and design a short-term goals menu based on that and carry out them each session.

Third theme: Providing Safe Workout

It is mentioned about an accident that happened in university caused the death of a student. That was an introduction for reminding GEIs that they have the responsibility and has to check all the objects available in the class to prevent about happening a problem during the session. For example, selecting the right movements based on the level of the students and helping the students to do the exercises safely was recommended.

For example, we can say in GEI should be paying attention to indoors and outdoors activities. GEI should check class heat, floor, light, air circulation and music. If GEI wants to be effective in his/her sessions should have an ability to monitor all the available objects in the class and have knowledge about using them in a useful form.

All PLC participants emphasized that air circulation is a serious problem during the sessions. Unfortunately, there was no enough air circulation in the exercise saloon and opening the windows can make a muscular problem because of sweating during the workout. Zehra said:

Unfortunately, the administrator has not solved this problem for years. The only thing that can be applied is to open the windows at the beginning of the session and let the fresh air come inside.

Another issue that was discussed was related to the light. It is mentioned that some students who have epilepsy are sensitive to the flashing light and may cause a shock for them. The facilitator explained his experience and said that one student did not mention the health screening form; that's why he was not aware of her/his sensitivity to the light. S/he experienced a shock, and the only thing that facilitator could do was calling an emergency and asking for help from there. It is mentioned that receiving the certificate is not the end of the path. It is a responsibility for the GEIs to update and improve themselves in different areas like knowing the different types of problems.

Fourth Theme: Selecting Appropriate Teaching Style

Students need to get detailed information about their training program. The experience was shared about a student who was informed warm-up would be happened by running. This student with running emptied all his energy and could not continue his work out just because of misunderstanding about the received information. Facilitator stated that students should be informed with more detail about the intensity of the running that is used as a warm-up. So, giving detailed information based on the students' level of knowledge is essential. It is said that this idea can be extended in the group exercises' program as well. He added:

In the needs assessments study, it was reported by some of the GEIs that sound system caused problems in the exercise sessions using music and take time to open it. Mostly the music is an earsplitting voice in this system.

Another discussion topic was related to making a connection by proper verbal or non-verbal cluing techniques. It is said that ACSM recommended that if GEI saw that one of the students could not do the exercise in the right way, should be informed by eye contact or maybe walking through that client to tell him/her about his/her performance.

In Zumba, it is highlighted so much. Due to using music with high volume, there is a possibility of not hearing the command of the GEI. That's why s/he should use sign language with his/her finger to show which side should s/he go or the movement is going to be changed.

It could be better to set up a projector in the saloon to show the effect of each movement in the body. It can be helpful to improve the implementation of the exercise by the students. It was said that one participant was not able to perform a position in the right way. Zehra explained her experience about replacing a wrong movement to the correct form. She said:

Although I illustrated the movement in different ways, she could not learn. Lastly, I videotaped her movement and showed back to her. That was effective. She performs it right. It taught me that GEI has to know different types of teaching methods to be effective in her/his job.

Although the demonstration of the movement by the instructor might be helpful, sometimes students require time to show the correct movement themselves. The facilitator shared his experience about kid's gymnastic session.

When I was observing the kids through their gymnastic session learning standing in trampoline, I found out that they are learning through trial

and error. They tried and failed several times until discovering to adjust their gravity Centre on the trampoline.

Evren explained his observed gymnastic instructor that works with kids. He stated:

Performing the movement by the instructor can be increasing the chance of learning by students. If the instructor is not able to perform cannot ask his/her students to do it. S/he should present the movement in the first step. If s/he cannot perform him/herself, s/he has to use a technique to help the students visualize it. By demonstrating, students can learn easily.

One of the techniques used by instructors or coaches is visualizing. Generally, coaches use different video as a visual form to improve their athletes' performance, especially in the competitive form of sports like football, basketball or in the martial art type of sports like karate. It can be applied in the group exercises to prevent performing the movement in the wrong way and injure themselves.

In addition, it was said that environmental factors also are influential. It is explained that kids always follow each other. If they find something hard to perform, they might try to observe each other. By making his/her friend as a model cheating whatever s/he is doing. Facilitator said:

Bloom has a beautiful statement. He said everybody could learn everything. There are no such words". You cannot learn in this way". Just some people learn fast, but some people need more time and trial if they have not a significant problem.

One of the PLC participants had the experience of working with students who were visually impaired. She explained that they could not see, but they can analyze the situation and realize their exact action better than people who are not blind. Working with blind people needs to be creative in designing the program.

"Football instructor sits in front of his/her student and drags his/her hand on the embossed paper (specific for blind people) helping him/her visualizing his/her place in the game, Goalball.

It was said that observing other exercises or games could give a viewpoint and perspective about teaching technique. Applying just one method with the same type of group may cause exhaustion of being an instructor. Dilara said:

My knowledge about handball helped me to create a different technique to teach Goalball game to visually impaired people. It helped me to

look from a different perspective. Knowing various fields of sports open a new viewpoint.

Just focusing in one field of sport and doing the same things for years, being open to the new things and being a lifelong learner can help the instructor to improve him/herself to be effective in his/her carrier.

Fourth Meeting

In the fourth meeting, the topic was “leadership and instruction”. The domain includes nine subdomains which are shown below. The first five sub-domains were discussed in the fourth meeting. Rest of them were discussed in the fifth meeting. The nine sub-domains discussed under the “leadership and instruction” were:

1. Consider the class environment by screening the new participants, music, equipment,
2. Creating a positive exercise environment by communication skills, behavioral strategies and effective motivational skills,
3. Demonstrate the exercises in proper form to be sure about safe execution based on the ACSM guidelines and standards,
4. Using the combination of verbal and nonverbal cues to enhance the safety and motivation among participants,
5. Monitoring the participants’ movements to be sure about safe and effective exercise execution and correcting them by using feedback,
6. Modifying the exercises based on the level of the individual or group needs,
7. Monitoring the audio equipment following the industry guidelines,
8. Responding to the participants’ concerns and using techniques to prevent the confliction,
9. Educating the participants’ knowledge, adherence and enjoyment by providing health and fitness-related resources and information.

From the discussions nine themes were created (first five in the fourth meeting, rest of them in the fifth meeting), including preparing the class environment, creating a positive environment, performance orientation, motivating skills, monitoring participants’ movements, modifying the exercises, monitoring the audio equipment, participant progression, educating the participants (Figure 4.3).

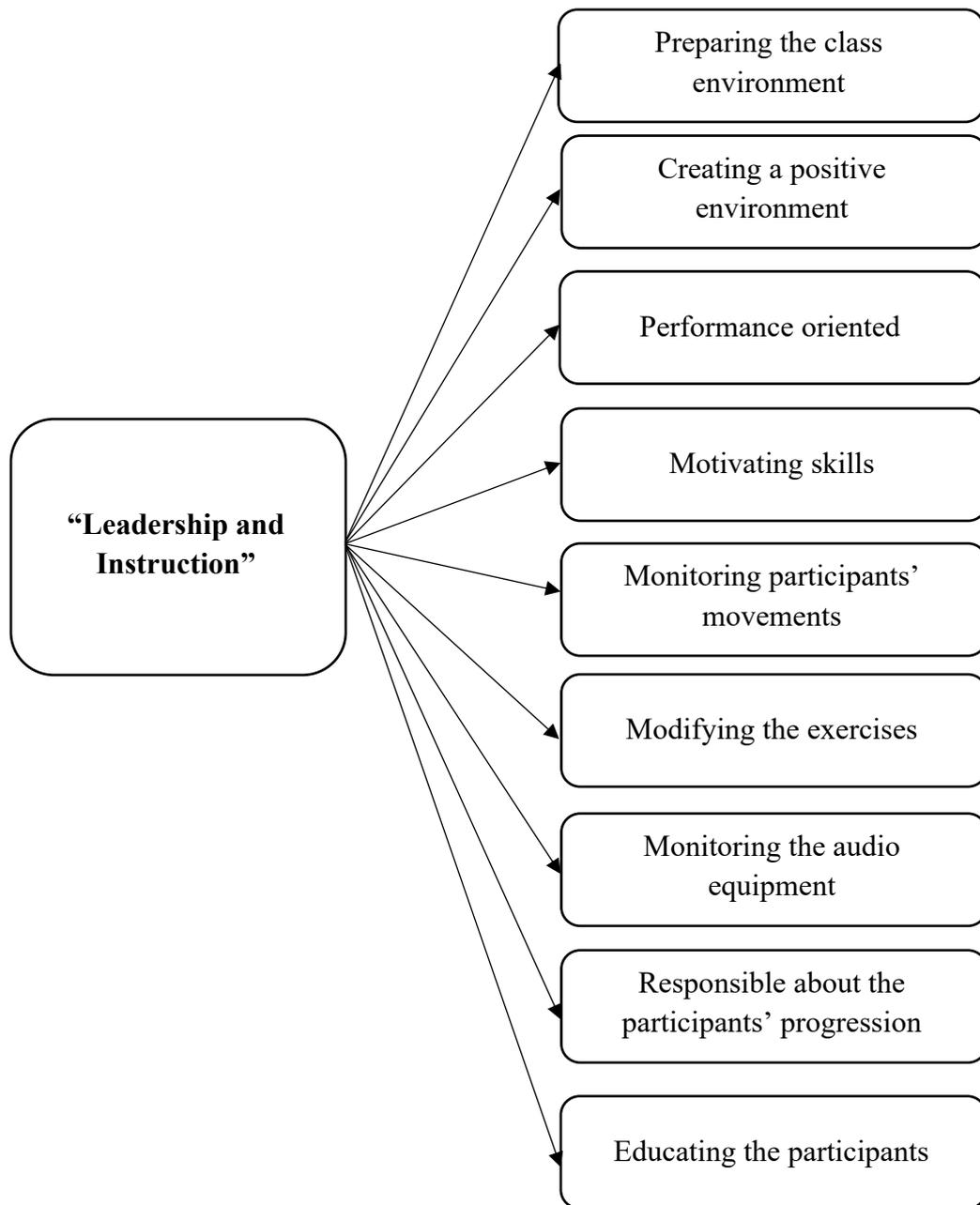


Figure 4. 3 . Themes discussed under the third domain of the ACSM

First Theme: Preparing the Class Environment

It was the most critical and problematic part among the GEIs. It means the instructor should design and prepare the class before the students come. At the beginning of the session, everything should be organized like light, music, air circulation system. Serap stated:

When it was my first session, I was under the stress of using the new equipment. Therefore, I took my Bluetooth to prevent happening unpredictable things with the voice system. But hopefully, the secretary helped me to open it.

The facilitator also mentioned:

In my sessions, the most critical thing is having a problem with the class facilities'. If they did not work, it would drain my energy. If you cannot fix it, you should ask a professional person to help you.

It is crucial to participate before starting the session to organize the class; otherwise, it might cause some kind of stress. Other PLC participants explained the similar problem was happening with the voice system as well. Ali said:

It is a common problem. There is a giant machine in the Pilates hall; we can only use its two keys.

Because it is a professional system, it may cause a problem in the first session for all instructors. That's why the instructor should go to the hall before students to organize everything related to facilities. And also preparing a poster, including the guideline of using different facilities can be another solution to prevent a waste of time.

In the group exercises, music is necessary and has a role as a motivator in the session. High quality of speakers is needed. Asking the responsible person to fix it and preparing it before starting the class was recommended.

It was discussed that the volume of the music is as important as selecting an appropriate type of music. If the volume were so high, it would bother everybody, and if it was so low, it could not be effective. It was said that one of the GEIs was used to apply the high volume of music in her Zumba session. She was warned to decrease the volume of the music several times and was informed about the negative impact of a higher volume of the music.

Second Theme: Creating a Positive Environment

Unfortunately, the speaking and sharing process is often neglected in exercise classes. PLC participants tried to find ways to increase the relationship between participants after seeing the BPNES scale implementation. Some of them shared their experiences.

Dilara said that she asked the participants questions, encouraged them to discuss and talk with each other about it. Facilitator recommended:

(Giving time for sharing and discussing) could be before or after the implementation of the session. You should give time to that. Starting or finishing immediately is not helpful.

For sure, GEI is expected to have different skills to increase the motivation of participants to regular adherence. We can name some of these skills as follows: motivational techniques, modelling, appropriate verbal and no-verbal behavior strategies for changing the group behavior, different types of feedback (e.g., positive feedback like a good job!) and communication skills (e.g., increasing and decreasing the voice or body language).

The participants were reminded of different levels of physical activity by the facilitator, emphasizing that each level (only students at three levels of preparation, action, and care - attending sports Centres) expect different strategies for motivation.

The facilitator claimed:

When it comes to athletic sport, enhancing the performance of the athletes will be important. But when it comes to health-related exercise programs, GEIs' aim is improving the persons' health and increasing his/her awareness about this issue. I say to my students that you should not ignore sport from your daily life after finishing our sessions. You just need to walk or do the movements that you learned from these sessions.

It is discussed that giving this information and recommendation could be essential. Still, we should keep in mind that our suggestions will be useful for just people who are in the fifth level of the exercise stages (maintenance). Evren said that with using some psychological tricks, GEI could improve the level of physical activity among the students. Evren explained:

I informed my students that if you could perform all the exercises given by me, you would get a slimmer body by burning fat. After that session, most of the students came to me and claimed that my recommendation was effective, and they feel good in their body. It is hard to apply in health-related exercise programs, but in karate (a competitive form of sport) it is easy to use psychological tricks. For example, if you say is this your highest power for doing bouncing? Athletes, by hearing this will use all their power to show you that they are so powerful.

Third Theme: Performance Oriented

The facilitator shared his experience of working with different groups of participants who have different motivational issues. He mentioned that knowing some social modelling techniques and being aware of the needs of the students would help GEs to be helpful and effective in their performance. One of the PLC participants claimed that before anything, being goal-oriented is essential. He explained that we have two groups of students regarding having a goal. There is one group of students who know the aim of their participation, and on the other hand, there is another group who does not become aware of their participations' goal. Evren explained his experience as:

I had a client who was playing football three days a week and came to me and claimed that football does not help him to reach a good body condition. He asked me to recommend him appropriate group exercises to improve his body strength. But at the same time, there are a lot of students in my sessions that do not have any goal for participation. In the second group instructor's role could be highlighted because they will do their instructors suggestions.

Dilara claimed that one of her participants who was a bicyclist and his goal of participation to Pilates was stretching his body and reach to a flexible body. She said that after passing almost two months of involvement, she could not cause a change in his body. After the discussion, it was concluded that the instructor could be effective just if the student wants to change him/herself. We cannot force them if they do not wish to.

The facilitator explained that there are various types of stretching techniques to motivate the students to develop stretching. One of them is PNF (proprioceptive neuromuscular facilitation) stretching used as flexibility training and can be effective for both stretching and contracting of the muscle. The facilitator shared his experience of doing stretching techniques with his students. He said:

In stretching issue, I use different types of stretching techniques. I demonstrate the static form of stretching firstly, and then I apply dynamic stretching and passive stretching.

PLC participants shared their own experiences implementing stretching techniques in their sessions. Pilates instructor claimed that she teaches PNF technique if she finds out that students did not show any improvement in his muscle range. Dilara said:

I'm doing it a little bit in my sessions. In some movements, when I feel that the adherence is not able to perform in the right way, especially when we try to reach up while lying down the ground and we pull, I say that imagine that you pull something using your back muscles, when I see she can't do again, I go and hold her hand to pull her. I say like this; she says okay, I got it.

On the other hand, yoga instructor mentioned that in yoga, the instructor does not interfere with student's performance, but s/he asks them to push themselves a little bit more each session. Serap said:

In yoga, we do not force the client to perform the movement, but we ask students to push themselves in each movement a little bit more comparing with previous session's performance.

Fourth Theme: Motivating Skills

It is discussed that the number of participants in each session was changing. All the instructors claimed that when the number of students was high in their sessions, they had higher motivation and energy to perform their choreography. Facilitator stated:

If we have even low number of students participated in our session, it is our responsibility to promote the group harmony that you already do, I am sure. And also making the connection with students and giving positive feedback, reflecting enthusiasm, energy and passion that is so important in HRF programs.

The PLC participants shared different experiences about making a connection. For example, it was said that checking the students' presence or absence gives a good feeling to the group exercise participants. Or creating a WhatsApp group or Instagram and keeping the connection and sharing information can enhance the participants' motivation to participate. It was explained that in some exercises that using music is essential like Zumba and freestyle combat, Instructor has to give direction by hand due to the higher volume of the music. But in yoga or Pilates' instructor has a chance to explain the movements with detail to lead the participants to do the exercises even if they could not see the instructor. Evren stated:

I have seen different teaching methods are used. It created the environment, which forces the person to do it. I mean, it creates an environment that asks you to do the movement. The student performs anything that his/her instructor did and s/he can do anything else, for example, constantly turn to that movement. Then s/he's starting to do the right movement. While punching in boxing, it performs the normal form, then asks to do with the dumbbell, then gives the strap to stabilize

the arm and asks to extend the arm to get the flat coordination, which is something like running.

The facilitator explained his experience through an observation session in the gymnastic setting. He said that kids were learning to stand on the trampoline with jumping repeatedly. Then s/he can explore the way of standing and keep his/her balance on it. He mentioned about Bloom's quote, which is: "Everybody can learn anything. But there is a difference in time of learning. Someone may learn fast, but someone may need more time to learn". Evren claimed that external factors were crucial in learning. He gave an example of his claim related to ninja warrior, which is expected from learner to push them to learn this technique. Dilara who had experience working with visually impaired people, mentioned that they could know just by verbal and touching cues because they have no idea about their environment. She said:

"They have extraordinary abilities. They can understand the distance by taking a step. If you ask them only to go three meters, they will immediately understand. They can analyze the situation directly in their mind and stop at that point".

Lastly, it was mentioned by the facilitator that the instructor had to know different fields of sports to have an idea through teaching the movements. He stated:

"If you're a football or basketball coach, you'll want to develop new strategies and tactics that will give your team an advantage. That's why you look at not only your sport but also other sports. Wherever you look, new apps can inspire you".

Fifth Theme: Monitoring the Participants' Movements

GEIs has to explain the benefit of some movements and demonstrate the right form of that to give confidence to the students to do the same exercises themselves independently. In this way, students would be inspired to perform the movements.

For example, the bridge position is critical, and I usually ask them to increase the strength of the leg muscles near the knee. I encourage them to do it wherever they sit.

If categorizing the participants in different sessions is impossible, GEI should pay attention to the students who need particular support (e.g., back pain). Evren stated:

Asking to stop the movement is applicable in just exercise sessions like Pilates and yoga and maybe walking. You can ask the students who

have a kind of disability not to perform the movement. But in freestyle combat, each choreography is a combination of different movements that's why it is hard to stop person because of a specific movement.

The facilitator reminded that if students refuse to stop moving despite health risks, GEI is still responsible for the health problems students will experience. Evren stated:

In Ramadan, a woman who was 46 years old and had fasting, participated in the freestyle combat. I asked everyone to not participate in this session if they were fasting. She was not only participating in my session but also, she participated in other sessions. She was losing weight very rapidly. I emphasized that she should not have participated in this session, but her answer was, 'I know, nothing would happen.

Checking the face of the participants during the session was mentioned. For example, if their face colour changed to red or sweating so much, GEI should interfere and warn the student.

Fifth Meeting

In this session, subdomains of “leadership and instruction” were continued to discuss by the PLC from the sixth subdomain to ninth. From the meeting notes, the themes from the sixth to the ninth were created.

Sixth Theme: Modifying the Exercises

It was said that to help the students do the exercise correctly, the trainers should demonstrate the action in a simple but appropriate form. Dilara stated a problem with the situation:

I experienced this. The reason is because of my spine disorder. I used to show everything but now I can't. That's why I use a student as a model depends on the situation.

Evren stated that he usually uses someone else as a model except advanced movements, even if he can perform it himself.

I used to show the right movement by helping a student. If s/he (model) could not show it in an optimal format, I demonstrate myself if the movement is advanced.

The facilitator said that when working with the advanced group, the movements may need to be explained in more detail. There is a higher chance of injury by this group due to the complexity of activities related to the four principles of FITT (frequency,

intention, time and type). Therefore, participants need to get more details about their choreography.

Seventh Theme: Monitoring the Audio Equipment

All of the GEIs expect to know working with different equipment, especially with the voice and audio systems and being aware of setting the volume based on the needs of the session and the participants. Evren stated:

When I conduct an exercise session, and 70 or 80 people are in front of me, I know how to guide them by my voice or giving hand direction. But another fitness instructor takes that scene, and he needs to know how much the tone of the man will be helpful to the person, or how much the music will be above or below his voice. If he doesn't know this, there is trouble. Or for example, it opens the music with higher volume, wants to inspire the participants, then it has to use the same microphone, but how to wear that microphone in your ear or body, what type of microphone will it use? For example, I opened the music, and it is necessary to know how to adjust the equalizer and at least treble. On top of those big amps ... Because you just plug in the cable, either the treble or the bass will be too high, because there is no equalizer for me or the other one.

It is said that Zumba instructor try to inspire the students by a higher volume of the music, but it might bother some participants' ear. Dilara noted that she had a severe discussion with one of the students.

I had a problem with the participants. Most of the students were happy with the volume of music, but I had to argue with one of them about not touching the voice system. Eventually, the sound system was moved to the secretary's room, and the problem was solved.

Eighth Theme: Responsible about the Participants Progression

The facilitator shared his experience about testing student's progression through the semester. He explained that teaching the measurement techniques and asking the participants to apply themselves. This method increases the autonomy of the students. The PLC participants stated that teaching the testing techniques to the students, and giving them a chance of observing his/her improvement might enhance their motivation. The facilitator also underlined:

Besides the advantages of teaching testing techniques, there are some disadvantages as well. For example, when we measure body fat, some of the students focus more on their diet to reduce body fat in a short time.

Dilara shared her strategy about controlling these types of participants who try to reach the goal very fast. She explained that she gives all the information about measurement (in any kind of measurement techniques). She emphasized that after receiving comprehensive knowledge, students could have permission to test themselves with equipment. Evren shared his strategy by dealing with students. He said:

Most diets are planned to lose up to 800 grams, 1 kg per week. I have dietician friends, and we talk to them a lot. Most of the people who come to me most of the time went to a dietitian, bought a diet list and quit after a month, which means they can't stand it anymore. What they say about dieticians: I go to a dietician, they guarantee 1 kg a week, they do all the tests, but when we start to lose 1 kg, I see that I cannot sustain it. If I come to this exercise class if I do my diet, can we shorten the process by losing 1 kilo a week, can I reach the ideal weight or fat ratio I want? I'm saying directly; take your time, you will lose not 1 kg per week, but only 500 grams.

Another issue that was emphasized under this topic was related to common beliefs about the duration of the exercise session. It is mentioned that people are busy and life is in a fast-pace. That's why everybody tries to find an easy way to reach his/her goals. In this way, different sport Centres offer sessions with a shorter period (e.g., 40 minutes). Evren stated:

Turkish people's belief is that you might be a winner if you could perform your exercise session in the shortest period. We live a fast-paced life. And also, we consume everything very fast.

It was discussed that by decreasing the time of each session, GEI has to increase the intensity of the choreography to perform effective exercise. With increasing the intensity, the blood pressure will be increased that could be risky, especially in older ages.

Ninth Theme: Educating the Participants

The other problem related to the website was shared by PLC participants. Some websites claim that they can help people lose weight very fast or they declare that with their recipe, everybody can lose 10 kg per month. These kinds of advertisements cause some psychological problems among people. For example, one of the PLC participants said that his students ask him to give some exercises to lose weight in a short period.

After not reaching their desired weight, they would become disappointed and stop exercising.

Unfortunately, most of the GEIs claim that they can help people lose weight very fast! There is no healthy method for this.

It was discussed that knowledgeable GEIs must support students by increasing their knowledge about the physiology of the body and teach them not to trust advertisements easily. The impact of different factors like age, gender and blood type and family background on losing weight was argued. In addition, it was said that in-group exercises there might be some students who need personal support due to having a heterogenic group of participants in each session. It could be planned by the GEI to be responsible about students (e.g., obese) who needs special attention like a specific set of movements or diet. Dilara stated:

I have to explain the cat position each session to some of my students. Each time when I ask them to perform it, they look at me like it is the first time that they heard the name of this position while we do it each session.

The facilitator mentioned three levels of groups that might participate in each session, including beginner, intermediate and advanced. In METU sports Centres, due to decreasing a large number of students after one month, it is impossible to divide the sports Centre's participants into three levels. In this way, the GEI has to be aware of the individual differences, both physiologically and psychologically. At the same time, GEI has to know different teaching styles to use in their session for different individuals with different abilities.

After finishing the topics related to the third domain of ACSM, GEIs discussed "legal and professional responsibilities". The sub-domains of the fifth domain were 1) evaluating the class environment (e.g., ventilation, lighter and acoustics), 2) promoting the participants' awareness about the exercise intensity or classroom safety procedure to minimize risk, 3) following industry-accepted professional, ethical and business standards to optimize safety and reduce liability, 4) responding to emergencies to minimize untoward events 5) respecting to copyright based on national and international copyright laws, 6) following a healthy lifestyle to be a positive role model, 7) continuing education programs to enhance the knowledge and skills continuingly to maximize professionalism in the field.

The themes created from the discussions of this domain were:

1. Class environment (e.g., ventilation, lighter and acoustics),
2. Promoting the participants' awareness,
3. Following professional, ethical and business standards,
4. Responding to emergencies,
5. Respecting to copyright laws,
6. Being a positive role model,
7. Being up to date.

From the discussions seven themes were created including class environment, promoting the participants' awareness, following professional ethics and business standards, responding to the emergencies, responding to copyright laws, being a positive role model and being up to date (Figure 4.4).

First Theme: Check the Class Environment

Making the environment appropriate for exercise is another topic that was discussed. Need assessment study conducting by the author of this study indicated that people who were working yoga or Pilates complained about hygiene due to using the same salon by another group exercises like Zumba. In yoga and Pilates, movements are performing on a mat on the floor without shoes. Our target group's salon mostly does not apply cleaning after changing the session. The only solution for this problem is asking the responsible person to be considering cleaning the saloon right after leaving the participants of the previous sessions and preparing the class for the next session.

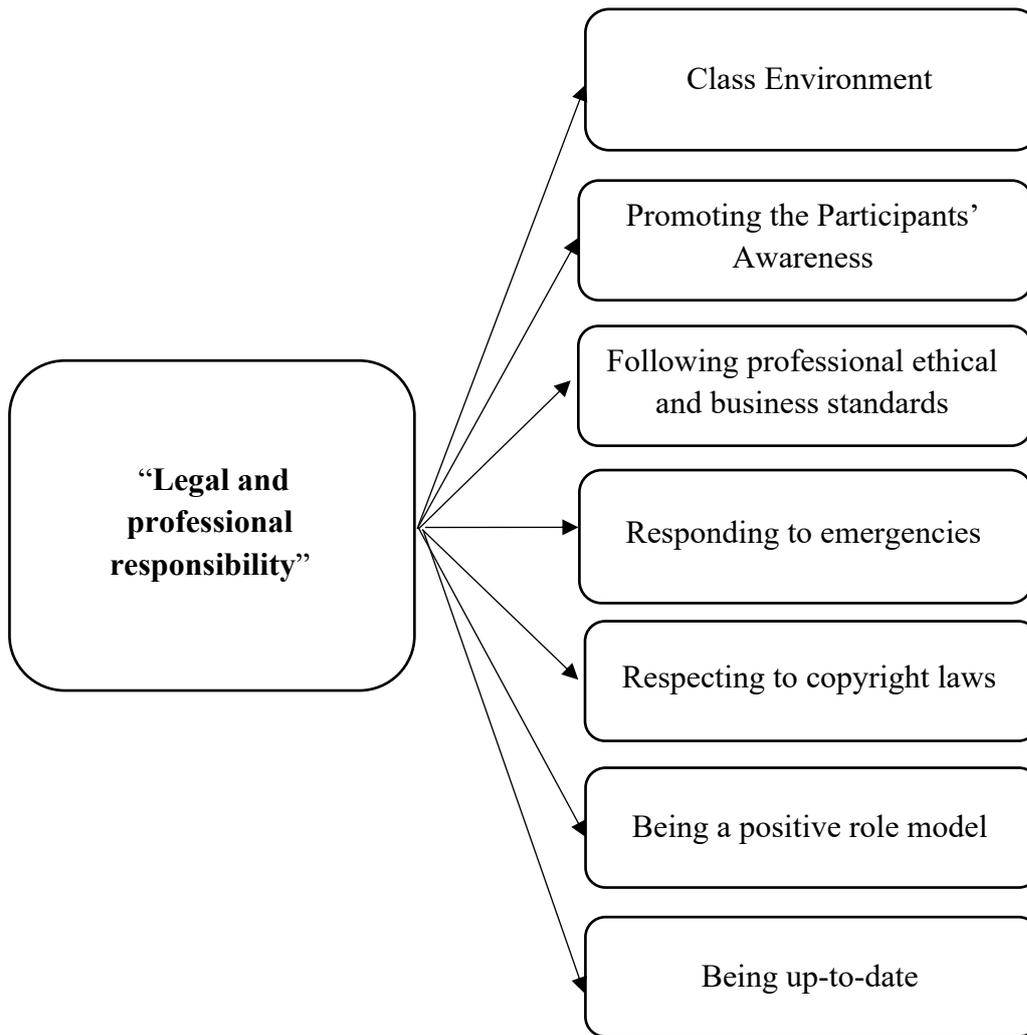


Figure 4. 4. Themes discussed under the fourth domain of the ACSM

Some group exercises like yoga need to perform in a calm place with low lightening and relaxation music to help the participants to relax. Having a problem with one of them may distract the participants. In this way, they will not catch the best result from their participation. Serap stated:

The light should not be flashing regularly. I adjust the music; for example, there is a position I'm opening (for relaxation). (There are different problems) when class is not clean, I cannot apply some movements outside of the mat.

Noise pollution was another problem about yoga session that was discussed. Besides the saloon, there is a basketball court. Sometimes students play basketball that causes noise pollution for yoga participants. The administrator tries his/her best to plan time to not overlap by the open time of the basketball saloon, but it is not a controllable issue. Serap expressed also:

It can be effective or not; I am not sure. The mirror is another issue. In place of doing yoga should be without a mirror. Yoga participants are expecting to be the focus inside. Seeing him/herself in a mirror, will put him/herself in a challenge of performing the movement. Therefore, their ego empowers and enlarges at that time.

It was mentioned about the general problem about the volume of the music or turning on or off the air circulation in a group exercise class. All of the PLC participants explained that most of the time, one of the students ask to turn off the air circulation while the weather is hot, and everybody sweats through the workout. Just because of insisting one student about turning off the air circulation, the other participants have to suffer the bad air of the class, which sometimes causes dropping out the activity by some class participants. Or another example is about the volume of the music that most of the people like the middle volume of music while the others like to decrease it causing to not hearable by some people or increase it so much that causes ear problem.

Second Theme: Promote the Participants Awareness

Also, it was discussed about the way of checking the students' exercise tolerance during the session. Some of the PLC participants claimed that it is possible just by looking at the face of the students. The facilitator mentioned that with using heart rate measurement, we could collect the valid data and controlling the students' heart rate by asking them directly. And, also noted that by using Borg scale format instructor could receive information about students' situation. It is the GEIs responsibility to know about monitoring the students' heart rate. Evren claimed:

I generally ask them when I gave a break time if they feel good or not. I know my students' background and their ability, that's why I can increase or decrease the intensity of the work out confidently. But I always try to increase the intensity just one level higher than their tolerance. For example, if their potential is 5 min, I try to increase it to 6 minutes.

Collecting physiological data was not easy in the past. Nowadays, using the heart rate is becoming popular and most of the students using it in their daily life as a smartwatch. Monitoring heart rate not only can be useful during the exercise time but also it helps a person to monitor it in his/her leisure time. Dilara noted:

I test their strength by asking them to stay at a specific position. I test it by the amount of time staying in a position. I increase the time little by little that causing the increasing resistance. During a semester it might increase from 15 sec to 1 min that is kind of improvement.

It was mentioned that GEI should be aware of individual differences. One group of participants do not need to encourage; they push themselves to perform the movement. This group of participants needs to get detailed knowledge about the aim of the exercise to prevent about injuring themselves. On the other hands, there is another group of participants who needs inspiration or more attention from their instructor to get the motivation for doing exercise. Dilek said:

While one student tries to enforce him/herself, another one thinks that there is no difference between doing and not doing that movement. S/he does not use his/her full power. That is the problem of a group exercise session.

One of the PLC participants mentioned that one of his students who were pregnant lost her child due to participating in freestyle combat, which is a higher intensity form of activity. He noted that it happened because she did not inform him about her pregnancy unless he would forbid the pregnant students about participation. It was discussed that in Turkey, a pregnant woman needs more attention and might stop hard work because they do not exercise regularly. Due to the lack of activity in Turkish women in a particular situation like pregnancy, they have to consult with a physician. Evren stated:

In Netflix, there is a documentary showing how a woman who is pregnant performing CrossFit or laying down in her face. Doctors in our country forbid pregnant women to perform physical exercises with higher intensity. But in the documentary doctor said that they could do any kind of exercises. When we researched the reason of this differences, we found out that in western countries people used to do exercises but in Turkey people do their exercises when they are in a specific situation, for example, they want to lose weight, or doctor prescribed him/her to participate in any kind of exercises to relief his/her pain. That's why pregnant women can have permission just to perform some lighter movements.

It was mentioned that the instructor should be a good observer. For instance, if the intensity of exercise is going to increase instructor should be careful about his/her students to stop them from performing the next choreography or let them continue it.

Evren said:

When I apply the Borg scale to find how hard the students feel about the physical activity intensity level, I ask them to give me a number between 1 to 10. One of them says nine, but after stopping him/her, I realized that s/he is in good situation and can continue the exercise. Therefore, I asked him/her to continue even if s/he does not feel good.

Intensity, frequency and time and type (FITT) of the choreography should be based on the level of the participants. The instructor should check the participants regularly (e.g., the colour of the face) and be aware of their potential to perform the movements.

Third Theme: Follow the Professional & Ethical Standards in Practices

The solution when a problem arises related to the exercise classes is to call “Conflict and Customer Service/Sports Centre Administration”. Their duty is solving the participant’s concerns and obtain a healthy and secure environment for doing physical activity for everybody. Dilara mentioned about her experience having a problem with one of the students who was increasing or decreasing the volume of the music without getting permission from the responsible person. In this situation, she explained that it was too hard to handle these kinds of conflicts, especially when the other person does not respect the roles.

Fourth Theme: Respond to Emergencies

It was told that the consent form should be comprehensive and informative. It should not only use to inform the rules of the sessions, but also it should provide detailed information about each session’s risk factors. The consent letters should be signed by all of the participants in registration time. PLC participants shared their experiences about happening an accident in their sessions. Dilara stated:

In my Pilates session, one of my students experienced a heart attack. It was a stressful situation for me. I just could apply CPR until coming to the ambulance.

Getting first aid certificate, including CPR, is essential for each GEI working with groups of people having different health status.

Fifth Theme: Respect to Copyright Laws

Copyright laws in using materials or music were discussed briefly, and almost all the PLC participants claimed that they respect the copyright laws. Evren stated that he, as a freestyle instructor has to use music in exercise sessions, pays attention to this issue and also try to apply the choreography that has been designed by himself.

Sixth theme: Be a Positive Role Model

Being seen as a role model in health behaviors and communication was expressed by GEIs. It was concluded that instructors should be a positive role model in health behaviors as well as communication styles. The facilitator mentioned the importance of being a good listener while communicating with students and being a good role model in health behaviors, including not smoking, healthy diet, exercise habits, and stress management.

Seventh Theme: Be Up to Date

Facilitator stated that this was the critical theme in this domain that had been highlighted in ACSM standards. It was discussed that for receiving any GEI certificate, each instructor has to pass different courses like physiology, anatomy and psychology. Unfortunately, nowadays we can see that the certificate is issued very quickly with various organizations even after just one day of training. It means GEIs need to improve themselves to be effective in their job. It causes different problems for administration staff that is responsible for employing an instructor. Evren explained his experience:

A lady came to me and told me that she had a certificate of Zumba. I asked her to send me a video performing a Zumba session. I realized that she did not know the rhythm, even movements. I couldn't lead her to any gym to work. In my opinion, in a gym, it is the duty of administrators to consider employing the instructors who have a valid certificate.

Receiving a certificate is not the end of the path. Instructors should update themselves. It was discussed that without updating, being offering effective exercise programs is impossible. Meltem shared her experience about receiving pilate's certificate by a sports federation. She told that the content of the training was limited because it was

just for one week. It was said that this training was not comprehensive and was focused on only one topic like the cardiovascular system. She mentioned that she was expected better training program due to paying a large amount of money, but it was not satisfactory. She noted:

It is a kind of problem in Turkey that getting certificate does not indicate the eligibility for being a good instructor. Attribution is important. Taking time for individual development is important. The more you are good in a field, the more good impact of that will return to you.

Sixth Meeting

The last meeting focused on the PLC participants' expression of their thoughts freely, and reflections on the entire PLC program as well as the administrator related issues affecting their exercise classes. First, the facilitator emphasized the critical role of GEIs in motivating students to participate in exercise regularly. Later, GEIs' observations on students, comments developing relatedness, competence and autonomy-support during the exercise classes were discussed.

Then, the facilitator said that every GEI must be aware of global professional competence standards to work in a safe and healthy environment. The discussion moved to GEI's responsibility to inform the manager to fix the issues. For example, a student measured the oxygen and carbon dioxide amount of sports centres at METU. The result showed that the amount of carbon dioxide is higher than the amount of oxygen. By reporting this issue, they expected the manager to fix the problem by purchasing a better air circulator. However, the result was not so; the manager ignored it. In addition, Meltem noted:

A questionnaire is applying each year, and it is mentioned that the hot water of the bath in central sports saloon has a problem and the exercise participants have to use cold water till mid-September. It was asked several times, and the different solution was suggested as well, but it did not fix yet.

The problem with the hygienic issues of the sports centres at METU was another topic that was discussed. PLC participants stated that managers were informed that students should be provided with a clean and hygienic environment, but the problem could not

be solved. It was also mentioned that in Pilate's session, some of the movements need to lie down on the floor, which is not clean enough. Dilara stated:

I get my mat. Some participants who have mat take it with themselves, but many of them have not any mat. Maybe students are not aware of how much dirt is the floor because they trust us as their instructor. It is not my duty to clean it. It has to be planned by the person who is responsible for cleaning after each session.

It was told that the consent form should be comprehensive and informative. It should not only use to inform the rules of the sessions but also it should provide detailed information about each session's risk factors. The consent letters should be signed by all of the participants in registration time. PLC participants shared their experiences about happening an accident in their sessions. Dilara stated:

In my Pilates session, one of my students experienced a heart attack. It was a stressful situation for me. I just could apply CPR until coming to the ambulance.

Getting first aid certificate, including CPR, is essential for each GEI working with different groups of people who have various health status to take his/her work guaranty and decreasing the possibility of accident or injury.

b) How Did the Intervention Manifest the Six Dimensions of PLCs?

In this heading, findings on the PLCs success in creating a shared purpose, shared leadership, supportive conditions, supportive relationship, individual, organizational improvement, and collective learning which was described by Hord (2009) as criteria for effective PLCs were presented.

Shared Vision/Purpose

PLC participants reflected on their experiences with a connection in professional competency standards for GEIs. The design and implementation features of the PLCs and the participants' descriptions showed that there were a shared vision and purpose for GEIs linked to the context of the ACSM standards. Moreover, the purpose of GEIs participation in meetings was similar, to learn from others and to reflect on their practices. Alper, in the interview, stated:

I am very pleased because I think, (this program) had expanded our perspective on events, added vision to us, and we can think more differently and critically within the ACSM framework.

Meltem also explained her satisfaction about participation in this PLC program due to getting an opportunity about listening to other instructors' experiences who shared their views using the ACSM standards in a friendly environment. She said:

I satisfied so much. It was nice to talk about and discuss different things based on ACSM standards. It was a pleasure for me to exchange ideas, it is not important whether we can do something together, or not but we can go into this effort, apply them, and listen to the experiences of people there. Because it is impossible to hear them somewhere, you cannot read them in books.

Evren also answered to the same question as:

(I participated in this program) Considering that it will both contribute to me and the program. I joined this program to share my knowledge and observe my colleagues' in the same environment.

Shared Leadership

Shared leadership is a crucial concept in PLC program that creates an opportunity for continues improvement among the participants and develop an environment for sharing values and ideas and being open to others' opinions at the same time. During the PLC meetings, all GEIs have an equal chance to talk and lead the discussions. Role of the facilitator was not teaching or dictating others. Meeting observation findings and participant statements during the interviews supported shared leadership.

In the second phase of the interview when Serap was asked about her experience on the program and the factors which satisfied her about the PLC program, she answered:

The factors that made me most satisfied with the meetings had the chance to get information in different areas as well as sharing my experiences.

Alper also mentioned in his words:

To have a chance to interact with other GEIs and facilitator was very useful for me. I also shared my experiences and knowledge during the sessions. There was an equal opportunity for everyone.

Supportive Structural Conditions (Time, Place, Resources)

When the participants enter the PLC program for the first session, they were welcomed warmly by the facilitator and the other PLC participants. They were invited to participate in the PLC program via WhatsApp, and the aim of the meetings was shared

briefly with them. After participation in the program facilitator shared the worksheet with participants and explained the goal of the study with detail. In addition, the problems come up with the previous research conducted by the author of this research was shared with the participants. By listening to facilitators' clarification and other participants' experiences related to their exercise implementation, the PLC participants figured out that they have the same experiences and felt that PLC program is essential for them to improve together and find a solution for existing problems. These findings indicated that the meeting setting was supportive of the PLC. Zehra in the second phase of the interview, when I asked whether her needs and demands were met in this program, she told:

I'm glad about my participation. I had the opportunity to communicate with other instructors. Because normally everybody comes and goes to their exercise session immediately. In general, our communication is limited. (But in through the PLC meetings) they shared their experiences in their group. The setting was supportive of communication as well as coming together in an un-stressful environment with plenty of educational materials.

Evren expressed his opinion about the resources was used in this program:

It made me very happy that through the program were taken out of the booklet or materials that were used abroad, and it was shared with us. This valuable resource helped me to improve myself. It was really useful to me.

Supportive Relational Conditions (Respect, Caring, Trust)

In a supportive relationship, the group members helping each other to cope with a challenging situation and try to find a solution together. During the PLC meetings, different issues were brought into discussion by the GEIs like cleaning issues of the saloon, lack of air circulation system and lack of information about the students' health status. Through the communication, each participant shared his/her views related to the issue as well as listening to others' open-heartedly. This kind of manner helped them to achieve positive results more than they could on their own. Serap, as the newest instructor among the participants, said:

Although I was new in this group, I was feeling positive when I was explaining my experiences. I was sure about not to be judged by others or not to be rejected by others due to being disagreed with me.

All the participants noted that they could speak their mind freely without any hesitation. All the participants were colleagues; that's why all communication was driven based on honesty and compassion. The facilitator had a vital role in creating a friendly environment for everyone to feel free about expressing themselves. At the same time, he was offering his ideas and opinions, but all the PLC participants could figure it out that they are free to approve or decline it.

Collective Learning

Collective learning is the ability to share the information in an organized way within a community to help the individuals to learn together. Participation in the current PLC program aimed to ask for information, evaluating the ideas, monitoring the problems of the workplace and interact by sharing their thoughts and experiences. In the second interview, Evren noted:

Through the meetings, I realized the importance of some issues like eye contacting, using hand command for changing the movements and especially paying attention to the participants' health history to lead them well and safe. After listening to others, I think it (This program) was so useful for my colleagues and me.

Sema also stated:

I learned so many things in these meetings. As you know, I am a yoga instructor, and I just know about yoga, and also, I am new in this area. I have limited information on other aspects of fitness. I had a chance to listen to instructors from different fields like pilates, freestyle combat and helped me to improve myself and widen my point of view. I am pleased about joining this program.

Zehra explained:

I participated in the exercise to ensure the development of my participants and to observe that development. I wanted to observe the opinions and practices of many of my instructor friends, and I think it was very effective.

Individual/Organizational Improvement

The best way to improve the performance of an organization is to support the professional competencies of the staff. Although in the current study, concentration was to help GEIs by creating a PLC context, the final result might impact the sports centres' organizational improvement. That's why, in this study, the aim of the PLC

participants was deep-diving into the issues, which cause low adherence or dropping out the exercise session by the students. Therefore, the improvement of GEIs will affect the performance of METU sports centres. Through the six weeks meetings, all participants discussed different issues, shared their opinions and recommended some solution for the problems come up through the sessions. They not only find a chance to improve themselves but also, they realized that they are not the only person who face problems like decreasing the rate of participation after almost one month.

4.3. What Were the Influence of the PLC Program on the GEIs' Implementation?

This research question aimed to explore the influence of the PLC program on participants' exercise class implementation four months after the intervention. For answering this question, observation of one session after four months of intervention, the second phase of interview data and field notes of the researcher were used. Three themes emerged under this research question, including 1) being goal-oriented 2) paying attention to environmental issues 3) evaluating the health background of the students.

Being Goal-Oriented

Four months after the end of PLC meetings, I participated in Evrens' exercise session to observe whether the PLC meetings had any influence on his exercise implementation. Evren participated in his session almost 5 minutes late because he had to answer one of his students' question from another session. He came energetically and called his students as "youths" like always and asked if they feel good today or not? With this question started to have an informal conversation with his students while he was trying to sync his phone with the voice system. He gave some information about the physiology of doing exercise as a pep talk. Maybe Evren was the only GEI at METU that tries to increase the knowledge of his students by giving information not only through the session but also before and after the session. Without having any tension about the time, he talks with the students about different topics like nutrition,

physiology of the movements and exercises and resting procedure after a workout session to recover.

The only thing that I could find as a weak point in Evren's session through the years was applying the same choreography all the time that could be boring after a while for students. I participated in Evren's session due to my researches through the years for my master degree thesis, I found out that Evren changes his choreography hardly. Although I am not regular adherence, whenever I participated in his exercise session, I was familiar with the choreography. Comparing with the first session of observation (before the intervention), I realized that Evren's style was the same. Still, he informed the students that he is designing an advanced choreography, and he would share them as soon as possible. I believe creating a new choreography caused by PLC meetings since the topics about goal-oriented class design and developing the different choreographies for inspiring about adherence were talked.

Through the observation session of Serap, I realized that she is goal-oriented in applying her choreography. She asked her students to do basic yoga poses to motivated them for advanced poses in the future. The interview with Serap was during the lunchtime in a restaurant at METU. After friendly talking, I asked her about the influence of the six-week PLC program. She noted:

I especially learned from the facilitator; he said, "I'm programming a lesson for a semester to follow the development of a person." We are going to do this in the first week, and the second week we will do this, but I understood that I need to develop a program for development. What do I want to see at the end of this semester? This student comes to class, but what do I want from this student? Do I want her posture to be corrected or just her mental awareness? That's where I found out I had to identify that. Class design is also important. The class should be clean, which is important. After a particular hour, the class becomes very hot and stuffy. If the student does not leave the session happy, s/he will not continue the exercise. Classroom design is important; the teacher should be able to see all student's brightness etc. I couldn't remember it as a subheading about the leadership, but the teacher-directed the students and the students directed the teacher. I was not aware of it before about that process, but (after PLC program) I noticed that when the students in the class told me to speed up or slow down a little bit, it goes under that title.

Alper and Zehra who work as Pilates instructors, said that they already work in a goal-oriented manner. Because of the time duration of the courses (four months) they planned a choreography and apply it for years. When I asked Alper how they set the goal for his sessions, he answered:

At the beginning of the semester, I try to give movements with low intensity. For example, I ask my students to stay in plank pose just for 10 or 15 seconds, but after passing the time, I increase the duration to 1 or 2 minutes. Of course, I pay attention to the ability of the participants.

Paying Attention to Environmental Issues

Comparing with the first session of observation (before the PLC program), Alper paid attention more to environmental issues like air, light, and music. In the second phase of the interview, Alper stated that the PLC program caused him to be more alert about the environment like checking the light, heat, and air circulation.

I asked him whether the intervention has any influence on his implementation. He said:

I learnt about paying attention to the environmental issues like light and the volume of the music since some students mentioned the negative effect of them on their participation. After receiving the results of the questionnaires, I realized that some of the participants are not satisfied with the hygiene of the saloon. My field is Pilates and hygiene might be most important to the participants since they have to lay down. That's why I asked them to use their mat or towel. Also, now I am more careful about opening the windows before starting our session to let fresh air come in. Most importantly, I learned that light flashes might be harmful to some people suffering from epilepsy based on an example shared by the facilitator.

Through the observation process, I realized that Evren became more aware of the environmental issues of the exercise session like air circulation. For example, through his workout session, when all students started to sweat, Evren opened the windows for doing air circulation for a short period and then closed them to prevent his students' health. He believes that cramp will be happened for the muscles by keeping the windows open. But he informed his students that they could open the window whenever they need.

I also find Serap more careful about music and light through the observation session. She selected an appropriate music for yoga from Spotify application instead of using

same music in all session. Through the PLC meetings, the importance of background music in Pilates and Yoga sessions was discussed.

Zehra was also careful about environmental issues. After entering to the class, she turned on the music firstly with a medium volume and then she started to talk about the weather and asked to close the windows because of the cold weather. Two of the students helped her to close the windows, and Zehra kept one of them open to allow for circulating the air. She asked one student to change her place to see her better during the workout. She requested all students to have their towel.

Evaluating the Health Background of the Students

Almost all PLC participants claimed that the questionnaire related to the students' health history was so informative and helpful for them to provide appropriate choreography for all the students with different health backgrounds.

Evren explained that the PLC meetings helped him to think deeply about different issues that could impact his exercise session like the physical activity level of participants of his exercise session and the visual and auditory format of teaching (e.g., applying visual or verbal cueing techniques for providing direction and anticipation). I asked if the PLC program has any influence on his exercise implementation. He said that they were informative and increased his information about not only his students but also about himself. He noted:

I was aware of the effectiveness of my sessions, but I liked receiving the material form of information. It was said that my sessions and also the yoga were the most effective sessions among students at METU [based on the questionnaires' results]. It impacted my interpretation because it gave me an understanding of the way of being effective and taking control of all the elements of my session. I started to think about preparing my choreography based on the level of physical activity of the participants and their needs. It was good for me.

When I asked Alper about the influence of the PLC program on his exercise implementation, he emphasized two important issues that he learned 1) paying attention to the environmental issues 2) collecting data about students' level of physical activity and their expectation about adherence. He also mentioned that the PLC program helped him to understand that knowing the level of physical activity of the participants and preparing the appropriate choreography based on their level is

essential. In addition, to prevent the students from injury, he told that he increased the time for warming up.

Related to Zehra's implementation, comparing with the exercise class observation before the PLC, her style did not impact so much by the PLC meetings. As it was mentioned before, Zehra as a Ph.D. student has research about physical activity of students, and she shared her experiences in meetings with other participants. I asked her about the influence of applying the questionnaire, and she answered:

About the influence of the meeting, I can say that I have already applied them (the issues discussed in PLC meetings), but this program caused me to understand that I am in the right direction. And also, I had [in PLC meetings] the opportunity to communicate with my colleagues. Normally, everyone comes and goes to their sessions and we rarely can find a chance to communicate. They shared their experiences in their group. I learned from them, they learned from me. I can say that it is the strong point of these meetings.

CHAPTER 5

DISCUSSION

In this chapter, firstly an overview of this study will be presented, and then the findings related to each research question will be discussed based on the literature.

Health promotion programs, especially in university settings, face challenges related to high dropout rates of exercise programs by the students due to various reasons like a high load of assignments or projects. Therefore, exercise-related health promotion program providers try to improve their programs, and offer a variety of programs. Professional competence of GEIs is very important in providing quality exercise programs. However, there are concerns regarding the professional competence of GEIs in the field. PLC appears to be an effective method for the professional development of GEIs. Therefore, this study aimed to design and implement a PLC, using ACSM's standards for GEIs as the content framework, and then evaluate the impact of PLC on GEI's professional competencies.

In the current study, PLC meetings were scheduled in six weeks with voluntary participation. The study was focused on three research questions: 1) What were the GEIs' thoughts on the PLC experience? 2) How did the PLC meetings take place in six-week concerning the information arose based on the needs of the GEIs, and the characteristics of effective PLCs? 3) What was the influence of the PLC program on GEIs' practices? Case study approach was used in the study, and data were collected through video recording all the PLC meetings, exercise class observations and interviews from the six volunteer GEIs and note-taking. Findings related to the analysis of qualitative data for each research question is discussed below.

5.1. What Were the Participants' Thoughts on the PLC Program?

Findings indicated that PLC participants' background characteristics were different from each other, including age, experience, educational background, the field of expertise within group exercise like Pilates, Zumba, yoga, freestyle combat.

GEIs were facing problems with the physical quality of group exercise setting, including hygiene, poor air circulation, music system. Their perception of administrative support was low to solve those problems. Some of them had limited communication with students before, during and after the sessions. They were not focusing on the students' ability levels during the planning and implementing of the classes. They were not collecting systematic data about the perception and learning of the students. They were also not following the pre-exercise health status of their students that increase the health and injury risks during their practice.

GEIs had formal professional certifications, which were taken from the Turkish authorities or private organizations. However, their professional training/certification-based knowledge and skills were not fully compatible with ACSM standards. GEIs professional knowledge and skills on "participant and program assessment", "class design", "leadership and instruction" and "legal and professional responsibilities" had weaknesses.

During the PLC program, they improved their awareness on those topics, and by sharing good practices, they support each other's competencies. It is understood that they primarily benefited from discussions on "participant and program assessment" and "legal and professional responsibilities". Their learning was particularly enhanced when they made evidence-based assessment and reflection during PLCs using BPNES and PAR-Q+ data. Collecting, processing and evaluating data for participation in the exercises class seems to influence GEIs motivation toward improvement. Thus, they have a chance to assess the effectiveness of their exercise classes by evidence.

Although the researches recommended having a homogeneous type of group in PLC based on their years of experience, the field of study or age, in a study conducted by Jones et al., (2013) it is recommended to select the PLC participants from different

level of expertise. They examined the impact of the PLC program on teachers' implementation with the participation of 16 teachers in a mixed-method design study. Jones et al. (2013) applied interview with the PLC participants, and they claimed that PLC program had impacted their lesson planning and science assessment practices that caused an improvement in their students' science test scores. The researchers also explored the way of interaction between teachers through the PLC meetings and reported the effectiveness of PLC program on teachers learning development, but there is a point that the researchers mentioned as an important issue in applying a kind of learning community for future study. They realized that the participants should be in different levels of expertise to have effective professional teaching group. In Jones et al. (2013)'s study, all of the participants were elementary level teachers, that's why this issue has been highlighted by the researchers.

In the current study, as well as Jones et al. (2013) recommendation, it was realized that the presence of two participants with a higher level of education in sport sciences helped all group members to benefit from different perspectives related to the topic both experimentally and professionally. Through the face-to-face interviews, participants with a higher level of education in sport sciences claimed that although they were aware of the issues that were discussed through the meetings but they realized that they are neglecting about applying some issues like paying attention about health history or level of physical activity among their students. The participants who have not education in sport sciences reported that it was more beneficial for improving their content knowledge. The results based on the observation revealed that the performance of the experienced GEI had been increased as well as the inexperienced participants, but it was concluded that participants with different level of education might benefit differently.

High satisfaction and perceived learning from the PLC program by the GEIs in this study, is in line with the previous studies indicating the development in professional learning in teacher education (Hunuk, Ince, & Tannehill, 2013; DuFour & Dufour 2013; Parker & Patton, 2017; Tannehill et al., 2020), and coaching context (Culver & Trudel, 2006; Garner & Hill, 2017; Bertram, Culver, and Gilbert, 2017; Kılıç, 2019) in the PLCs. Findings of this research question expanded the related knowledge base

in the literature by showing the value of evidence-based discussion on the motivation and learning of GEIs in the PLCs.

5.2. How Did PLC Meetings Take Place in Six Weeks?

Findings indicated that PLC meetings provided an appropriate environment to share and discuss the professional competencies stated by ACSM (ACSM, 2018). Facilitator let them feel free about sharing their experiences and ideas as well as helping them to be focused on a specific topic each session. Due to perceived importance of some issues by the GEIs (e.g., physical activity level; reasons for dropout; the health risks during exercise; understanding the student satisfaction and learning), more time was allocated to discuss those topics. In general, all of the PLC participants expressed that the six-week PLC program provided valuable knowledge and delivered ACSM content in a well-structured format.

Although some PLC programs use discussion protocols to be focused on one subject at the moment, the overall PLC structure and the process can be changed based on the participants' needs. In the present study, using ACSMs' GEI standards helped to be focused on the topic each session, in a flexible manner due to the participants' needs and demands.

The meetings were structured in a way that maximized innovation, collaboration and reflection. GEIs shared their experiences, discussed the topics and learned together. PLC participants mentioned especially about the usefulness of some of the discussed topics, including evaluation, environment design, categorization of the participants and, communication and motivation skills. Findings also mentioned about some neglected aspects in their workplace such as "being goal-oriented through the semester", "collecting data about health issues of the students" and "getting more information about the level of physical activity of the students".

In addition, the GEIs provided some valuable advice and suggestions to improve the quality of the meetings like establishing and developing the sessions regularly each semester to find a chance about exploring the topics in-depth. They realized that improvements would be possible inside the group instead of being isolated. Almost all

of the participants noted that the knowledge and skills that they discuss through the PLC meetings are hard to learn in isolation. GEIs comments on PLCs are in line with the previous studies indicating the “ongoing and sustained” and “learning by group” nature of PLCs (Tannehill et al., 2020).

PLC and interview analysis demonstrated that intervention met the key characteristics PLCs, including 1) learning collaboratively; 2) sharing experience and vision; 3) focusing on student learning; 4) using effective dialogue to increase the learning among the participants; and (5) supporting environmental conditions for learning together instead of learning alone (Dufour & Eaker, 1999, Hord, 2004, Murphy, 2004; Tannehill et al., 2020). Previous studies indicated the critical role of these criteria in designing and implementing the PLCs. For example, studies are pointing out the role of active learning strategies (Huggins et al. 2011; Murphy, 2015), collaboration (Chou, 2011), instruction, and participants (Chou, 2011; Curwood, 2011) in the PLCs. The findings of this study showed that all five key features were met during the implementation of the PLC for GEIs. For instance, related to “environmental support conditions”, PLC participants stated that physical and social environment was supportive for their comfortable participation. Related to “shared vision”, findings indicated that all participants focused on the professional competency standards, and they agreed on the role of those standards in offering quality exercise programs.

There is not a universal definition for PLC. Various definitions offer up for that. Still, all of them consist of five criteria including (1) learning collaboratively (2) sharing experience and vision (3) focusing on student learning (4) using effective dialogue to increase the learning among the participants (5) support the environmental conditions to learn together instead of learning alone (Dufour & Eaker, 1999, Hord, 2004, Murphy, 2004). Different studies conducted to focus on PLC’s dimensions separately. For example, related to active learning strategies in PLC program (Huggins et al. 2011; murphy, 2015), related to collaboration (Chou, 2011), about instruction and students (Chou, 2011; Curwood, 2011) were specifically focused on dimensions of PLC. Findings of the present study supported all five dimensions mentioned above. For instance, related to “support environmental conditions”, one of the PLC participants who were new among the group stated that through sharing her ideas feel comfortable

and was sure about not to be judged by her group members. Almost all of the participants had the same idea about sharing their experiences and opinions through the PLC meetings. Related to “shared vision”, all of the PLC participants were satisfied with their participation since they had an equal chance to share and discuss and expand their knowledge and sometimes change their perspective about an issue. Even the experienced participant claimed that his desire about participation to this program was improving the knowledge of both himself and the others.

The previous researchers investigated the way of performing PLC and the influence of that on teachers and coaches learning and the way of interaction, discussion and sharing their experiences through the meetings. For instance, Chou (2011) researched to find the influence of the PLC on teachers’ learning and their action when they involved in a PLC program. Results of this study indicated that PLC is an effective approach for exchanging the knowledge of the teachers, enhancing the interaction to learn from one another. In addition, the outcome of this study supports the effectiveness of the PLC program on assisting the teachers in improving their student’s achievement.

In summary, design and implementation of the PLC for GEIs in this study were valid with respect to the key characteristics defined in the professional development literature. Findings of this research question expanded the knowledge base in the literature by showing the design and implementation processes of PLCs in depth.

5.3. What Were the Influences of the PLC Program on GEIs’ Implementation?

Related to the third research question, findings revealed that GEIs transferred the knowledge and skills discussed in the PLC meetings to their exercise classes.

After PLC meetings, I found out that almost all of the participants were alert about the environmental issues like music, air circulation and hygiene of the saloon since they realized the importance of these issues for students’ exercise adherence as a barrier. For instance, need assessment findings conducted by the author, indicated that student’s motivation for participation loses when they find the gym unclean, or there is no fresh air.

According to ACSM, it is the GEIs' duty to find a solution at that moment or ask the responsible person to fix it. In the interview four months after the PLC and the exercise class observations, it was realized that all of the PLC participants especially yoga instructor who had a student suffering from epilepsy considered about the environment of the saloon.

Another issue that the GEIs found valuable after the PLC program was about evaluating the health issues of the students. After applying the questionnaires, the results indicated that some of the students suffered from different types of health issues, and they did not inform their instructors. For example, a student was reported that she suffered from severe disorder, and neither her instructor nor the registration staff knew about her health issue. This example highlighted the importance of applying the PAR-Q+ questionnaire before starting the semester to prevent happening an accident for students through the exercise session.

Interview and observation findings also demonstrated that GEIs transferred their learning on the importance of "goal-oriented exercise classes" to meet the needs of their students. During the PLCs, the facilitator had been highlighted the role of being goal-oriented and sharing the goals with the students in the exercise sessions. It could affect the students' motivation to participate in by stimulating their understanding about the aim, content, practices and assessment of exercise class. Through the observation, it was realized that instructors are applying this issue by emphasizing about the purpose, scope, implementation and evaluation related knowledge during their classes by the students.

While previous studies have searched the effect of the PLC on student achievement (Saunders et al., 2009; Williams, 2013) and coaches' developments (Cote et al., 2010), there are two studies, conducted to provide data through observation about the influence of PLC in class implementation (Huggins et al., 2011; Murphy, 2015). These researchers reported that observation could be helpful about providing a direct connection between interaction during the PLC meetings and changes in instruction. In the present study, observations were used to collect data about the influence of the PLC program on participants' exercise session implementations. Observations of exercise sessions indicated valuable information about how GEIs transferred their

learning in the PLCs to exercise classes specifically in participant and program assessment, class design and attention to environmental issues. Findings of this research question expanded the knowledge base in the literature by showing that PLC causes deep learning and transfer of learning to exercise classes by GEIs. Even four months after PLC, we were able to observe how this information changed the design and implementation of exercise classes by GEIs.

This study was the first for using the ACSM as a framework in health promotion setting to increase the developmental knowledge of GEIs through the six-week meetings. Along with observations and interviews, the research questions provided vital information on GEI's improvement and the influence of the PLC.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

This study was conducted to explore the design, implementation and evaluation of PLC for the GEIs. In this section, conclusions derived from the findings of the study for each research question are presented.

6.1. Conclusions

What Were the GEIs' Thoughts on the PLC Program?

Participants were volunteer GEIs with a high motivation to learn by participating in the PLC. Their satisfaction from the PLC participation was high. By participating in the PLC, GEIs improved their awareness and knowledge on the professional competency standards of ACSM (ACSM, 2018) concerning 1) participant and program assessment, 2) class design, 3) leadership and instruction, and 4) legal and professional responsibilities.

Evidence-based discussion and reflection during PLCs such as using BPNES and PAR-Q+ data improved their learning. Findings of this research question expanded the literature by showing the value of evidence-based discussion on the motivation and learning of GEIs in the PLCs.

How Did the PLC Meetings Take Place in Six Weeks?

PLC intervention was applied as planned for six weeks by six GEIs using the ACSM professional competency standards. The first week was started with the discussion of previous needs analysis in the study setting on group exercise classes. Then each week,

one of the ACSM professional competency domain for GEIs was discussed under the guidance of a facilitator.

GEIs mentioned the importance of some of the discussed topics, including evaluation, environment design, categorization of the participants and, communication and motivation skills. They also noted some neglected aspects in their workplace such as having a specific and explicit “goal-orientation during the exercise classes”, and sharing it with the students, “collecting data about health issues of the students” and “getting more information about the level of physical activity of the students”.

Design and implementation of the PLC for GEIs were valid with respect to the key characteristics. Six key characteristics of PLC met during the intervention, including 1) learning collaboratively; 2) sharing experience and vision; 3) focusing on student learning; 4) using effective dialogue to increase the learning among the participants; and (5) supporting environmental conditions for learning together instead of learning alone, and finally, 6) organizational improvement.

Findings of this research question expanded literature by showing the design and implementation processes of PLCs in depth.

What Were the Influences of the PLC Program on GEIs’ Implementation?

GEIs transferred the knowledge and skills discussed in the PLC meetings to their exercise classes. Specifically, following the health status of participants, changing the class design and instruction based on the needs of the learner, developing observation skills for understanding the student's reaction to exercise load during the exercise sessions, communicating the class aims with the students were among the knowledge and skills transferred to the exercise class by the GEIs.

Findings of this research question expanded the literature by showing that PLC causes deep learning and transfer of learning to exercise classes by GEIs even four months after PLC.

6.2. Limitations and Strength of the Study

GEIs was working at “Sports for Health” program of a university setting in Turkey. Accordingly, the researcher does not claim that the data from this study reflect the experience of all GEIs working in sports Centres of Turkey. However, the current study provided an in-depth, rich description of PLC design, implementation and evaluation in a PLC program for the GEIs by using observation and interview as a data source.

6.3. Implications of the Study

The Findings of the present study provide a number of implications.

- 1) Highlighting the need for applying a different questionnaire to collect information about students’ level of physical activity, health history and needs and expectations about their participation. This information will help GEIs to provide a safe and useful choreography in a goal-oriented manner.
- 2) Designing a learning community is essential for exercise instructors to share and discuss their experiences to prevent being isolated.
- 3) The administration should pay more attention to the class environment (e.g., air circulation system, hygiene).
- 4) Providing information about each exercise course by sports centers’ administration during the registration time to help the students select the right exercise course based on their needs and level of physical activity.

6.4. Recommendations

Based on this study's findings, the following recommendations are made for PLC applications for GEIs and future research.

Recommendations for PLC Applications

1. Use PLC approach for GEIs professional development in an ongoing and sustained manner.

2. Prepare PLC facilitators to lead PLCs for the GEIs.
3. Use professional competency standards as a framework guiding the PLC discussions.
4. Encourage GEIs to collect data from their students and work environment, process data and evaluate findings for discussion on PLCs.
5. While offering PLCs for the GEIs, ensure about meeting the key characteristics of PLC applications.
6. Focus on GEIs satisfaction, learning, and transfer of learning to their practices by participating in PLCs.

Recommendations for Future Research

1. Use quantitative research approach to examine the effect of PLCs on the GEIs professional development.
2. Apply interview with students/clients, facilitator or sport administrative staff and manager to gain more information regarding GEIs behavior change in addition to self-reported and observation.
3. Examine the students' exercise adherence due to their GEIs participation in PLCs.
4. Design large scale, multiple PLC studies for the GEIs.
5. Apply PLCs for GEIs working in a different setting such as fitness clubs.
6. Determine the most effective amount of time or number of sessions to apply for the PLC program.
7. Assess the long-term effect of the PLC program on GEIs exercise implementation and their students' adherence (e.g., after passing one year).
8. Examine cross-cultural factors that influence PLC applications.

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APPENDICES

A. BASIC PSYCHOLOGICAL NEEDS IN EXERCISE SCALE / EGZERSİZDE TEMEL PSİKOLOJİK İHTİYAÇLAR ÖLÇEĞİ

Aşağıda belirtilen ifadeler özel durumlardan ziyade egzersizdeki genel deneyimlerinize ilgilidir. 1-5 arasında derecelendirilen bu ölçeği kullanarak, size en uygun gelen cevabı daire içine alınız.

1. Tamamen katılmıyorum
2. Katılmıyorum
3. Kısmen katılıyorum
4. Katılıyorum
5. Tamamen katılıyorum

1. Ulaşmak istediğim sonuçla ilgili çok büyük bir ilerleme gösterdiğimi hissedirim.
1 2 3 4 5

2. Diğer egzersiz katılımcıları ile birlikte iken kendimi rahat hissedirim
1 2 3 4 5

3. Yaptığım egzersiz programı tercihlerim ve ilgilerimle örtüşür.
1 2 3 4 5

4. Egzersiz programımda yer alan etkinlikleri etkili ve başarılı yaptığımı hissedirim.
1 2 3 4 5

5. Diğer egzersiz katılımcıları ile arkadaşça ilişkiler kurduğumu hissedirim.
1 2 3 4 5

6. Yaptığım egzersizlerin tam istediğim gibi olduğunu hissedirim.
1 2 3 4 5

7. Egzersizin çok iyi yaptığım bir aktivite olduğunu hissedirim.
1 2 3 4 5

8. Diğer egzersiz katılımcıları ile açık iletişimim olduğunu hissedirim.
1 2 3 4 5

9. Yaptığım egzersizin kim olduğumu kesinlikle yansıttığını hissederim.

1 2 3 4 5

10. Katıldığım egzersiz programımın gerekliliklerini karşılayabildiğimi hissederim.

1 2 3 4 5

11. Diğer egzersiz katılımcılarının yanında rahatsız olmadığımı hissederim.

1 2 3 4 5

12. Egzersiz yapma şeklimle ilgili olarak seçimler yapma fırsatına sahip olduğumu hissederim.

1 2 3 4 5

HERKES İÇİN EGZERSIZE HAZIRBULUNUŞLUK ANKETİ

B. TURKISH VERSION OF PAR-Q+ (EGZ-A+)

2015 EGZ-A+

Herkes için Egzersize Hazırbulunuşluk Anketi

Düzenli egzersizin sağlığa yararları açıkça bilinmektedir; herkes her gün egzersiz yapmalıdır. Egzersize başlamak çoğu insan için oldukça güvenlidir. Bu anket size daha aktif egzersize başlamadan önce doktorunuzun veya egzersiz uzmanının önerilerini almaya gerek olup olmadığını söyleyecektir.

GENEL SAĞLIK SORULARI

Lütfen aşağıdaki 7 soruyu dikkatlice okuyun ve her birini dürüstçe yanıtlayın: EVET veya HAYIR kutucuğunu işaretleyin.	EVET	HAYIR
1) Doktorunuz size hiç kalp hastalığınız olduğunu <input type="checkbox"/> VEYA tansiyonunuzun yüksek olduğunu <input type="checkbox"/> söyledi mi?		
2) Dinlenirken, günlük yaşantınız içerisinde VEYA egzersiz yaparken göğüs ağrısı hissettiniz mi?		
3) Son 12 ay içinde baş dönmesi sebebiyle dengeyi yitirdiğiniz VEYA bilincinizi kaybettiğiniz (bayıldığınız) oldu mu? Eğer baş dönmeniz (ağır egzersiz sırasında olsa bile) fazla soluklanmayla ilişkiliyse lütfen HAYIR'ı işaretleyiniz.		
4) Bugüne kadar size hiç (kalp hastalığı ve yüksek tansiyon hariç) kronik (sürekli) bir hastalık tanısı konuldu mu? LÜTFEN HASTALIKLARI BURAYA YAZINIZ:		
5) Halen kronik (sürekli) bir hastalık için reçeteli ilaç kullanıyor musunuz? LÜTFEN HASTALIKLARI VE İLAÇLARI BURAYA YAZINIZ:		
6) Halen (ya da son 12 ay içinde) egzersizle kötüleşebilecek kemik, eklem veya yumuşak doku (kas, bağ veya kiriş) sorunuz var mı? Geçmişte var olan bir sorunuz, şu anda egzersiz yapmanızı kısıtlamayacaksa lütfen HAYIR'ı işaretleyiniz. LÜTFEN HASTALIKLARI BURAYA YAZINIZ:		
7) Doktorunuz size hiç egzersizi sadece tıbbi gözetim altındayken yapabileceğinizi söyledi mi?		

1. Eklem Hastalığı, Kemik Erimesi, Sırt veya Bel Rahatsızlığınız var mı? Varsa

aşağıdaki soruları yanıtlayın, **Yok** ise 2. soruya geçin.

1a. İlaçlarla veya doktorun verdiği diğer tedaviler ile rahatsızlığınızla baş etmekte zorlanıyor musunuz? (Şu an ilaç veya başka tedavi almıyorsanız **HAYIR** yanıtlayın)

EVET **HAYIR**

1b. Ağrıya sebep olan eklem rahatsızlıkları, yakın zamandaki kırık, kemik erimesi veya kansere bağlı bir kırık, omur kayması (ör. spondilolistesis) ve/veya spondilolisis/pars defekti (omurganın arkasındaki kemik halkada çatlak) var mı? **EVET** **HAYIR**

1c. Düzenli olarak 3 aydan uzun süreyle steroid (kortizon vb.) iğnesi veya steroid hapi kullandınız mı? **EVET** **HAYIR**

2. Herhangi bir çeşit Kanseriniz var mı? Varsa aşağıdaki soruları yanıtlayın, Yok ise 3. soruya geçin.

2a. Kanser tanınız şu tiplerden biri mi: akciğer/bronş, multipl miyelom (plazma hücreli kanser), baş ve boyun? **EVET** **HAYIR**

2b. Halen kanser tedavisi alıyor musunuz (kemoterapi veya radyoterapi gibi)?

EVET **HAYIR**

3. Koroner Arter Hastalığı, Kalp Yetmezliği veya Tanı almış Kalp Ritim Bozukluğuna bağlı bir Kalp veya Kalp-Damar hastalığınız var mı? Varsa aşağıdaki soruları yanıtlayın, Yok ise 4. soruya geçin.

3a. İlaçlarla veya hekiminizin verdiği başka tedavilerle hastalığınızı kontrol etmekte zorlanıyor musunuz? (Şu an ilaç veya başka tedavi almıyorsanız **HAYIR** yanıtlayın)

EVET HAYIR

3b. Tıbbi tedavi gerektiren düzensiz bir kalp atımınız var mı? (ör. atrial fibrilasyon, erken ventriküler vuru)

EVET HAYIR

3c. Kronik (sürekli) kalp yetmezliğiniz var mı?

EVET HAYIR

3d. Koroner arter (kalp-damar) hastalığı olan ve son 2 ayda düzenli egzersiz yapmayan bir hasta mısınız?

EVET HAYIR

4. Yüksek Tansiyonunuz var mı? Varsa aşağıdaki soruları yanıtlayın, Yok ise 5. soruya geçin.

4a. İlaçlarla veya hekiminizin verdiği başka tedavilerle hastalığınızı kontrol etmekte zorlanıyor musunuz? (Halen ilaç veya başka tedavi almıyorsanız **HAYIR** yanıtlayın)

EVET HAYIR

4b. İstirahatteki tansiyonunuz ilaçlı ya da ilaçsız 160/90 mmHg 'ye eşit ya da üzerinde mi? (İstirahatteki tansiyonunuzu bilmiyorsanız **EVET** yanıtlayın) **EVET HAYIR**

5. Tip-1 Diyabet, Tip-2 Diyabet veya Pre-Diyabet (gizli şeker) gibi herhangi bir metabolik hastalığınız var mı? Varsa aşağıdaki soruları yanıtlayın, Yok ise 6. soruya geçin.

5a. Yiyecekler, ilaçlar veya doktorun verdiği diğer tedavilerle kan şeker düzeyinizi ayarlamakta sıklıkla zorlanıyor musunuz? **EVET HAYIR**

5b. Günlük yaşantınız esnasında ve/veya egzersizi takiben sıklıkla düşük kan şekeri (hipoglisemi) `nin belirti veya bulgularını yaşar mısınız? Hipogliseminin işaretleri; titreme, sinirlilik, beklenmedik huzursuzluk, anormal terleme, baş dönmesi ya da göz kararması, kafa karışıklığı, konuşma güçlüğü, halsizlik ve uyuklama olabilir. **EVET HAYIR**

5c. Kalp veya damar hastalığı ve/veya gözlerinizi, böbreklerinizi etkileyen komplikasyonlar **VEYA** ayak ve ayak parmaklarında his değişikliği gibi diyabet komplikasyonlarının belirti ve bulgularından herhangi biri var mı? **EVET HAYIR**

5d. Başka metabolik hastalığınız var mı (mevcut gebeliğe bağlı diyabet, kronik [sürekli] böbrek yetmezliği veya karaciğer sorunları gibi)? **EVET HAYIR**

5e. Yakın zamanda sizin için alışılmadık şekilde yüksek (veya ağır) şiddette egzersize başlamayı planlıyor musunuz? **EVET HAYIR**

6. Alzheimer, Demans (bunama), Depresyon, Anksiyete Bozukluğu, Yeme Bozukluğu, Psikotik Bozukluk, Zihinsel Engellilik, Down Sendromu gibi bir Ruh Sağlığı Sorununuz veya Öğrenme Güçlüğünüz var mı? Herhangi biri Varsa aşağıdaki soruları yanıtlayın, Yok ise 7. soruya geçin.

6a. İlaçlarla veya hekiminizin verdiği başka tedavilerle hastalığınızı kontrol etmekte zorlanıyor musunuz? (Halen ilaç veya başka tedavi almıyorsanız **HAYIR** yanıtlayın) **EVET HAYIR**

6b. **Yukarıdaki hastalıklarla birlikte** sinirleri veya kasları etkileyen sırt-bel rahatsızlığınız var mı? **EVET HAYIR**

7. **Kronik Obstrüktif Akciğer Hastalığı (KOAİ), Astım veya Pulmoner Hipertansiyon gibi solunum hastalığınız var mı? Varsa aşağıdaki soruları yanıtlayın, Yok** **ise 8. soruya geçin.**

7a. İlaçlarla veya hekiminizin verdiği başka tedavilerle hastalığınızı kontrol etmekte zorlanıyor musunuz? (Halen ilaç veya başka tedavi almıyorsanız **HAYIR** yanıtlayın)
EVET **HAYIR**

7b. Doktorunuz size hiç istirahat veya egzersiz sırasında kan oksijen düzeyinizin düşük olduğunu ve/veya takviye oksijen tedavisine ihtiyaç duyduğunuzu söyledi mi?
EVET **HAYIR**

7c. Astımlıysanız; halen göğüs sıkışması, hırıltılı solunum, nefes darlığı, inatçı öksürük (haftada 2 günden fazla) şikâyetleriniz var mı, ya da geçen hafta ani nefes sıkışmasında alınacak ilacı iki kezden fazla kullandınız mı?
EVET **HAYIR**

7d. Doktorunuz size hiç akciğerlerinizin kan damarlarında yüksek tansiyonunuz olduğunu söyledi mi?
EVET **HAYIR**

8. **Spinal Kord (Omurga) yaralanmasına bağlı Tetrapleji (Her iki kol ve bacağın felci) veya Parapleji (Belden aşağı felç) var mı? Varsa aşağıdaki soruları yanıtlayın, Yok** **ise 9. soruya geçin.**

8a. İlaçlarla veya hekiminizin verdiği başka tedavilerle hastalığınızı kontrol etmekte zorlanıyor musunuz? (Halen ilaç veya başka tedavi almıyorsanız **HAYIR** yanıtlayın)
EVET **HAYIR**

8b. Sıklıkla baş dönmesi, göz kararması ve/veya baygınlığa sebep olacak kadar önemli istirahat kan basıncı düşüklüğü olur mu?
EVET **HAYIR**

8c. Doktorunuz size ani yüksek tansiyon atakları (Otonomik Disrefleksi) yaşadığınızı belirtti mi?
EVET **HAYIR**

9. İnme 'ye bağlı Geçici İskemik Atak veya Serebrovasküler Olay geçirdiniz mi?

Geçirdiyseniz aşağıdaki soruları yanıtlayın, **Geçirmediyseniz** 10. soruya geçin.

9a. İlaçlarla veya hekiminizin verdiği başka tedavilerle hastalığınızı kontrol etmekte zorlanıyor musunuz? (Halen ilaç veya başka tedavi almıyorsanız **HAYIR** yanıtlayın)

EVET **HAYIR**

9b. Yürüyüş veya hareketlerinizde herhangi bir problem var mı? **EVET** **HAYIR**

9c. Son 6 ayda sinir veya kaslarınızda felç veya zayıflık yaşadınız mı?

EVET **HAYIR**

10. Yukarıda listelenmemiş başka herhangi tıbbi durumunuz var mı, veya iki ya da daha fazla tıbbi hastalığınız var mı? Varsa aşağıdaki soruları yanıtlayın, **Yok** ise son sayfadaki önerileri okuyun.

10a. Son 12 ayda kafa travması sonucunda kendinden geçme, baygınlık veya bilinç kaybı yaşadınız mı **VEYA** son 12 ayda beyin sarsıntısı tanısı aldınız mı? **EVET** **HAYIR**

10b. Listede yer almayan tıbbi durumunuz var mı (epilepsi [sara], nörolojik hastalıklar, böbrek problemleri gibi)? **EVET** **HAYIR**

10c. Şu an iki veya daha fazla tıbbi hastalığınız var mı? **EVET** **HAYIR**

LÜTFEN TIBBİ HASTALIKLARINIZI VE İLİŞKİLİ HER İLACI YAZINIZ:

C. INTERVIEW PROTOCOL WITH GROUP EXERCISE INSTRUCTORS

Interview Questions for First Phase

Sorular:

1. Altı haftalık mesleki öğrenme grubu programına katılmanızın nedenleri nelerdir?

Neden? İç motivasyon; Dış motivasyon

2. Altı hafta sonunda öğrenme grubuna katılımdan memnun kaldınız mı? Sizi katılımdan en çok mutlu eden unsurlar nelerdi? Katılım sırasında zorlandığınız/mutsuz olduğunuz herhangi bir konu oldu mu?

3. Altı hafta süresince, hangi konulardaki tartışmalar en çok ilginizi çekti?

Neden?

4. Hangi tartışmalar/konular sizin için öğretici oldu? Katılımdan kendiniz için yeni fikirler edindiniz mi?

Neler?

5. Mesleki öğrenme grubuna katılımınızın SIS programı uygulamalarınıza nasıl bir etkisi oldu?

Katılımcı ve program değerlendirmesi, sınıf tasarımı, liderlik ve öğretim, hukuki ve mesleki sorumluluklar

6. Mesleki öğrenme grubu sürecinde öğrencilerinizin egezersiz sırasında temel psikolojik ihtiyaçlarının karşılanma durumu ile ilgili verileri sizlerle paylaşıldı. Bu verilere analiz etmek sizin uygulamanızı nasıl etkiledi?

Bağ, özerklik, mücadelelilik

7. Bu programda size saglanan bilgi kaynakları ve bilgiler dışında, kendi bilgilerinizi güncellemek için farklı kaynaklar kullandınız mı?

Web, makale, kitap

8. Bu mesleki öğrenme grubunu sürdürmek isteseniz, ne tür bilgiler öğrenmek istersiniz? Bu programı geliştirmek için herhangi bir tavsiyeniz var mı?

Sizin beklentileriniz nedir?

9. Mesleki Öğrenme Grubunuzdaki diğer üyelerle olan etkileşiminizde zaman için de herhangi bir değişiklik oldu mu?

Diğer katılımcılarla ilgili başlangıçtaki düşünceleriniz nelerdi?

Süreçte etkileşim yeterlimiydi?

Bitiminde diğer katılımcılarla olan etkileşiminizde herhangi bir değişiklik oldu mu?

Benim sorularım bu kadar. Sizin eklemek istediğiniz her hangi birşey varmı?

Katılımınız için teşekkür ederim.

Interview Questions for Second Phase:

Sorular:

1. Mesleki öğrenme grubu programına katılmanızın uygulamalarınıza ne gibi etkileri oldu?

Derslerde bir fark oluştu mu?

Egzersiz programınızda/derslerinizde hangi konulara özellikle dikkat ediyorsunuz?

2. Sizinle paylaşılan anketlerden gelen bilgiler uygulamalarınızı nasıl etkiledi?

(temel psikolojik ihtiyaçlarının karşılanma ve sağlık özgeçmişini ile ilgili)

3. Gelecekteki derslerde bu anketleri uygulamayı düşünüyor musunuz? Neden?

D. APPROVAL OF METU HUMAN SUBJECTS ETHICS COMMITTEE

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER



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06 Eylül 2017

Konu: Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi: İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Prof. Dr. Mustafa Levent İNCE ;

Danışmanlığını yaptığınız doktora öğrencisi Shabnam MEHRTASH "*Designing, Implementing and Evaluating a Professional Learning Community for the Fitness Instructors*" başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülerek gerekli onay 2017-SOS-147 protokol numarası ile 07.09.2017 – 30.12.2019 tarihleri arasında geçerli olmak üzere verilmiştir.

Bilgilerinize saygılarımla sunarım.

Prof. Dr. Ayhan SOL

Üye

Doç. Dr. Yaşar KONDAKÇI

Üye

Yrd. Doç. Dr. Pınar KAYGAN

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Prof. Dr. Ş. Halil TURAN

Başkan V

Prof. Dr. Ayhan Gürbüz DEMİR

Üye

Doç. Dr. Zana ÇITAK

Üye

Yrd. Doç. Dr. Emre SELÇUK

Üye

**E. PROFESSIONAL STANDARDS FOR ACSM GROUP EXERCISE
INSTRUCTORS / ACSM GRU P EGZERSİZ EĞİTMENLERİ İÇİN
MESLEKİ STANDARTLAR**

Grup Egzersiz Eğitmenleri hangi konularda bilgi ve beceri sahibi olmalıdır?

Konu alanı	Sertifikasyonda yüzdelerik değeri %
1. Katılımcı ve Program Değerlendirmesi	10
2. Sınıf Tasarımı	25
3. Liderlik ve Öğretim	55
4. Hukuki ve Mesleki Sorumluluklar	10

1. Katılımcı ve Program Değerlendirmesi

A. ACSM standartlarına ve yönergelerine dayalı değerlendirme protokollerini gözden geçirerek, güvenliği optimize etmek ve riski en aza indirmek için tarama prosedürünü değerlendirmek ve geliştirmek.
Bilgi <ul style="list-style-type: none">• Uygun sağlık geçmişi değerlendirme yöntemi.• Sağlık geçmişi değerlendirmede ACSM Standartları ve Rehberi.• Fitness çalışmalarına katılım öncesi ACSM sağlık durumu tarama anketi.
Beceri <ul style="list-style-type: none">• Spor merkezinin fitness çalışmalarına katılım açısından uygunluğunu değerlendirme.• Fitness çalışmalarına katılım öncesi tarama süreçleri geliştirme ve uygulama.
B. PAR-Q, ACSM katılım öncesi sağlık taraması veya diğer uygun araçlar kullanılarak egzersiz öncesi katılım öncesi değerlendirmenin gerekli olup olmadığını belirlemek için gerektiğinde katılımcıların sağlık riskini yönetmek ve gözden geçirmek.

Bilgi

- Egzersiz katılımından önce “bilgi verilmiş onam ve egzersiz/spor yapmasında sakınca yoktur raporunun” kullanılması.
- Katılım öncesi tarama prosedürü ile ilgili ACSM kuralları.
- Katılım öncesi taramaya yardımcı olmak için ACSM risk sınıflandırma kategorileri (düşük, orta, yüksek gibi).
- Önemli sağlık geçmişi bilgisi (geçmiş ve şu anki sağlık durumu, ortopedik sınırlılıklar, kullanılan ilaçlar, alınan besin destekleri, aktivite durumu, beslenme durumu, stress ve kaygı durumu, aile kalp ve dolaşım sistemi hastalıkları ve kronik hastalık hikayesi, sigara içme durumu, alkol kullanımı vb.).

Beceri

- Hekimden “egzersiz/spor yapmasında sakınca yoktur” raporunun ne zaman isteneceğinin belirlenmesi.
- Katılım öncesi tarama anketinin uygulanması.
- Tarama anketini değerlendirerek risk sınıflandırma kategorisinin belirlenmesi.
- Tarama anketi sonuçlarına göre uygun önerilerde bulunmak.

C. Katılımcıları, önerileri ve/veya değişiklikleri sağlamak için bilinen akut veya kronik durumlar için gerektiği gibi tarama.

Bilgi

- Grup egzersizine katılımdaki ortak tıbbi durumlar ve çelişkiler.
- Derse katılımı etkileyebilecek veya engelleyebilecek risk faktörleri, belirti ve semptomları, fiziksel kısıtlamalar ve tıbbi durumlar.
- Bir katılımcının egzersiz yapmaması veya durdurulmaması için uygun kriterler.

Beceri

- Her bir dersten önce katılımcılarının sağlık durumunun belirlenmesi.
- Hekimden “egzersiz/spor yapmasında sakınca yoktur” raporunun ne zaman isteneceğinin belirlenmesi.
- Egzersiz öncesi sağlık durumunun belirlenmesi sonuçlarına dayanarak önerilerde bulunulması.

2.Sınıf Tasarımı

A. Amacı ortaya koymak ve sınıfın amaçlarını katılımcıların ve tesisin ihtiyaçlarına göre belirlemek.

Bilgi

- Bir grup egzersiz sınıfının amacını belirlemek için kullanılan yöntemler (örneğin, anket, odak grup, görüşme, öneri kutusu).
- Grup egzersiz sınıfı türleri (örneğin, kara tabanlı, su bazlı, ekipman tabanlı).
- Grup egzersiz ortamlarında kullanılan ekipman türleri.
- Sağlık, zindelik, yaş, cinsiyet, yetenek gibi katılımcı özellikleri.
- Bir grup egzersizinde sıkça karşılaşılan sağlık sorunları ve/veya özel ihtiyaçlar.
- Güvenli katılımı ilgili çevresel faktörler (örneğin, dış mekan, iç mekan, döşeme, sıcaklık, alan, aydınlatma, oda büyüklüğü, havalandırma).
- Dış mekan, iç mekan, zemin, sıcaklık, alan gibi grup çalışması için farklı ortam türleri, aydınlatma, oda büyüklüğü, havalandırma ve potansiyel olarak o ortama uyum sağlama ihtiyacı.

B. Sınıf içeriğini (yani ısınma, uyarma ve soğuma) etkili bir egzersiz yapmak için amaçlara göre belirlemek.

Bilgi

- Isınma, uyarıcı ve soğuma fizyolojisi.
- Kalp solunum sistemi dayanıklılığını geliştirmek ve/veya sürdürmek için FITT prensibi (yani, egzersiz sıklığı, şiddeti, süresi ve türü).
- Antrenman ilkeleri (örneğin, özgüllük, uyarılma, yükleme).
- Farklı antrenman formatları (ör. sürekli, istasyon, interval, zamanla ilerleyen/zorlaşan 4-6 haftalık seanslar gibi).
- Sınıf katılımcılarının ihtiyaçlarını en iyi şekilde karşılamak için değişiklik yapmak.
- Farklı öğretim stilleri (ör. resmi, otoriter, kolaylaştırıcı, besleyici).
- Müziğin egzersizlerde kullanımı.

Beceri

- FITT ilkelerinin (yani, egzersiz sıklığı, şiddeti, süresi ve türü) sınıf tasarımına uygulanması.
- Isınma, uyarıcı ve soğuma organizasyonu.
- Sağlık sorunları ve özel ihtiyaçları olan katılımcılar için bir sınıf planlama.
- Egzersiz ortamına ve mevcut ekipmana dayalı bir sınıf planlama.
- Sınıfın amaçlarına en iyi şekilde ulaşmak için çeşitli öğrenme stillerini uygulamak.

C. Sınıfın amaçlarına göre güvenli bir antrenman sağlamak için uygun alıştırmaların seçimi ve sıralanması.

Bilgi

- Isınma, uyaran ve soğuma sırasında kullanılan çeşitli egzersizler.
- Farklı beceri ve fitness seviyelerine sahip katılımcıların ihtiyaçlarını karşılamak için çeşitli egzersizler.
- Kalp solunum sistemi antrenman ilke ve teknikleri.
- Kas kuvveti ve dayanıklılığı geliştirme ilkeleri ve teknikleri.
- Esneklik geliştirme ilke ve teknikleri.
- Etkinliğe (spora) özgü fiziksel uygunluk bileşenleri (örneğin denge, çeviklik, hız, koordinasyon).
- Kas dengesi prensipleri (örneğin, fleksiyon / ekstansiyon, agonist / antagonist).
- Egzersiz ilerlemesi (örneğin, kolay / zor, yavaş / hızlı).
- Bir grup egzersizinde sıkça karşılaşılan sağlık sorunları ve / veya özel ihtiyaçlar.
- Çeşitli egzersizlerle ilişkili riskler.
- Müziğin sınıf tasarımında yararları ve kullanımı.

Beceri

- Sınıf amaç ve hedeflerine göre müziğin seçimi ve uygulanması.
- Egzersizleri kas dengesini korumak, katılımcılar için riski en aza indirmek ve sağlık sorunları ve özel ihtiyaçları olan kişiler için değiştirmek için seçmek ve sıralamak.
- Alıştırmalar arası geçişleri tasarlayabilmek.

D. Güvenli ve etkili bir antrenman sağlamak için sınıfın amacı ve hedeflerine göre sınıf içeriğini, egzersiz seçimini ve sıralamayı prova etme ve gerektiğinde revize etme.

Bilgi

- Sınıf provasının amacı.
- Egzersiz ve hareketlerin uygun şekilde yürütülmesi.
- Yönlendirme, beklenti, motivasyon ve güvenlik sağlama amaçlı sözlü ve sözlü olmayan iletişim/destekleme teknikleri.
- Çeşitli sınıf ortamları (örneğin, dış mekan, iç mekan, döşeme, sıcaklık, alan, aydınlatma, oda büyüklüğü, havalandırma) için gerekli olabilecek uyarlamalar.

Beceri

- Egzersiz ve hareketlerin gösterilmesi.
- Sınıf amaçlarına göre müzik kullanımı.
- Prova ve deneme-yanılmaya dayalı sınıf tasarımını değiştirme.
- Öğretim stillerini uygulamak (örneğin, resmi, otoriter, kolaylaştırıcı, besleyici).
- Yönlendirme, beklenti, motivasyon ve güvenlik sağlama amacıyla sözlü iletişim/destekleme tekniklerini uygulamak.
- Sözlü olmayan iletişim/destekleme tekniklerini uygulama (görsel, yönelimli).
- Müzikle uyumlu hareketler ve/veya seçilen alıştırmalar veya bölümler sırasında sayımlar.

3.Liderlik ve Öğretim

A. Derse, yeni katılımcıları taramak, ekipmanı ve müziği düzenlemek ve salonu/etkinlik alanını hazırlamak gibi ders öncesi prosedürleri yerine getirerek hazırlanma.
Bilgi <ul style="list-style-type: none">• Ekipmanın çalışması (örneğin, ses, egzersiz ekipmanı, tesis).• Grup egzersiz sınıfı katılımcılarının sağlık durumunun her bir dersten önce belirlenmesi ile ilgili prosedürler.• Sınıf ortamı (örneğin, dış mekan, iç mekan, döşeme, sıcaklık, alan, aydınlatma, oda büyüklüğü, havalandırma). Beceri <ul style="list-style-type: none">• Her bir dersten önce grup egzersiz sınıfı katılımcılarının sağlık durumunu belirleme.• Zaman yönetimi.• Ders öncesi duyuru yayınlama (karşılama, talimat, güvenlik, katılımcı sorumluluğu)• Ses sistemini çalıştırma.• Konfor ve güvenliği en üst düzeye çıkarmak için gerekirse çevreyi değerlendirmek ve uyarlamak.
B. Katılımcıların katılımını en iyi hale getirmek için etkili motivasyon becerileri, iletişim teknikleri ve davranış stratejileri kullanarak olumlu bir egzersiz ortamı oluşturmak.
Bilgi <ul style="list-style-type: none">• Motivasyon teknikleri.• Modelleme.• Uygun sözlü ve sözsüz davranışlar.• Grup davranışı değiştirme stratejileri.• Temel davranış değişikliği modelleri ve teorileri (örneğin, egzersiz değişimi davranış basamağı, öz yeterlilik, karar verme dengesi, sosyal öğrenme teorileri).• Geribildirim türleri ve uygun kullanımı.• Sözlü (ses tonu, sesin yükselip alçalması) ve sözsüz (beden dili) iletişim becerileri. Beceri <ul style="list-style-type: none">• Davranış değişikliği stratejilerinin kullanımı.• Davranış değişikliği modellerinin ve teorilerinin kullanımı.• İletişim tekniklerinin kullanımı (sözlü ve sözsüz/beden dili).• Grup uyumunu teşvik etmek.• Ders katılımcıları ile etkileşim.• Ders katılımcılarına pozitif geri bildirim verme.• Coşku, enerji ve tutku yansıtma.

- Çeşitli öğrenme biçimlerini destekleyen teknikler kullanma.

C. ACSM standartlarına ve rehberlerine uygun güvenli uygulama sağlamak için doğru form ve tekniği kullanarak tüm egzersizleri/alıştırmaları/becerileri gösterme.

Bilgi

- Temel fonksiyonel insan anatomisi ve biomekaniği.
- Temel egzersiz fizyolojisi.
- Temel ergonomi ilkeleri.
- Uygun uyum, form ve teknik
- Yüksek riskli egzersiz ve hareketler.

Beceri

- Uygun uyum, form ve tekniği gösterme.
- Egzersiz uyarlamalarını gösterme.
- Hatalı/uygun olmayan form ve tekniği düzeltme.

D. Fitness endüstrisi kurallarına/rehberlerine dayalı olarak güvenlik ve motivasyonu optimize etmek için sözlü ve sözsüz eğitim ipuçlarını kullanma.

Bilgi

- Beklenti, yön, eğitim, motivasyon, güvenlik, dokunsal ve görsel işaretleme teknikleri.
- Uygun katılım performansı

Beceri

- Uygun beklenti, yön, eğitim, motivasyon, güvenlik, dokunsal ve görsel işaretleme tekniklerinin kullanımı.
- Katılımcıların performansını takip etme
- Katılımcıya kendi alıştırmalarını ve / veya formlarını nasıl düzeltereklerini öğretmek

E. ACSM standartlarına ve yönergelerine uygun olarak, güvenli ve etkili bir egzersiz ortamı sağlamak için gözlem ve katılımcı geri bildirimlerini kullanarak katılımcıların performansını izleme.

Bilgi

- Güvenli ve etkili egzersiz gösterimi.
- Egzersiz şiddeti izlemenin arkasındaki gerekçe/mantık.
- Egzersiz şiddeti izleme yöntemleri ve sınırlılıkları.
- Egzersiz programlama (örneğin, egzersiz türü, şiddeti, sıklığı ve süresi).
- Aşırı efor/çabanın semptom ve göstergeleri.
- Uygun egzersiz gösterme teknikleri.
- Uygun geribildirim teknikleri (örneğin, görsel, sesli).
- Egzersize normal ve anormal tepkiler.
- Bir katılımcıyı egzersize başlatma ve durdurumama için uygun ölçütler.

Beceri

- Güvenli ve etkili egzersiz uygulama.
- Ders katılımcılarının egzersiz şiddetini izleme.
- Aşırı efor/çabanın semptom ve göstergelerini tanıma.
- Egzersiz programlama ilkelerini uygulama (örneğin, egzersiz türü, şiddeti, sıklığı ve süresi).
- Katılımcılara kendi egzersiz şiddetlerini nasıl izleyebileceklerini ve değiştirebileceklerini öğretme.
- Uygun egzersiz gösterme teknikleri.
- Uygun geribildirim teknikleri (örneğin, görsel, sesli).

F. ACSM standartlarına ve yönergelerine uygun olarak, güvenlik ve etkinlik sağlamak için bireysel ve grup ihtiyaçlarına dayalı alıştırılmaları uyarlama.

Bilgi

- Çeşitli çevresel durumlara kalp dolaşım sisteminin (aerobik) tepkisi
- Aerobik, kuvvet ve esneklik egzersiz uyarlamaları egzersiz şiddeti ve güvenliğini nasıl etkiler.
- Çeşitli egzersiz güvenlik ve şiddeti uyarlama teknikleri (örneğin, tempo, hareket açısı/açıklığı, alternatif hareketler, yük).
- Belirli bir kas grubu için çeşitli kolaydan zora egzersizler.
- İlgili sağlık otoritesinin hamilelikte egzersizle ilgili önerileri.

Beceri

- Çevresel durumlara dayalı olarak egzersiz gösterme ve şiddeti uyarlamaları.
- Çevresel durumlara, bireysel ve grup ihtiyaçlarına göre, aerobik, kuvvet ve esneklik egzersizi şiddetini uyarlama.
- Egzersiz güvenlik ve şiddeti uyarlama tekniklerini uygulama (örneğin, tempo, hareket açısı/açıklığı, alternatif hareketler, yük).

G. Fitness endüstrisi kurallarına/rehberlerine uyarak vokal ve / veya ses ekipmanlarının ses seviyelerini izleme.

Bilgi

- Uygun ses projeksiyon teknikleri.
- Vokal ısınmanın değeri.
- Vokal ısınma teknikleri.
- Güvenli ses düzeyi.
- Grup egzersizinde ses projeksiyonu teknolojisi (örneğin, mikrofon, amplifikatör, hoparlör)

Beceri

- Uygun ses projeksiyon tekniklerinin uygulanması.
- Grup egzersizinde ses projeksiyonu teknolojisinin kullanımı (örneğin, mikrofon, amplifikatör, hoparlör).

H. Tesis politikası, prosedürleri, endüstri yönergelerine ve çatışma yönetimi veya müşteri hizmetleri stratejilerine uygun, katılımcıların endişelerine cevap veren profesyonel, adil ve güvenli bir ortam sağlama.

Bilgi

- Çatışmadan korunma.
- Temel çatışma yönetimi teknikleri.
- Çatışma çözümü ile ilişkili iletişim teknikleri (örneğin, aktif dinleme, ayna, yansıma).
- Çatışma yönetimi ve senin kuralları/politikaları uygulama rolüne ilişkin özel kulüp politikaları.

Beceri

- Çatışma yönetimi tekniklerinin uygulanması.
- Empatik dinleme becerilerinin uygulanması.
- Uygun çözümün seçimi.

I. Sağlık ve zindellekle ilgili bilgiler ve kaynaklar sunarak bilgi, zevk ve bağlılığı geliştirmek için katılımcıları eğitme.

Bilgi

- Temel fonksiyonel insan anatomisi ve biyomekaniği.
- Temel egzersiz fizyolojisi.
- Temel insan gelişimi ve yaşlanması.
- Vücut ağırlığı yönetimi ve beslenmenin temel ilkeleri.
- Egzersize başlama, devam ve geri dönme davranış değişimini desteklemede kullanılan motivasyon teknikleri.
- Egzersizin yararları ve riskleri.
- Temel ergonomi ilkeleri.
- Stres yönetimi ilkeleri ve teknikleri.
- Sağlıklı yaşam davranışları ve uygulamaları.
- Güvenilir, güncel ve uygun sağlıkla ilgili bilgiler
- Egzersiz öncesi tıbbi veya yardımcı sağlık uzmanlarına yönlendirilmesi gereken risk faktörleri

Beceri

- Sağlık ve egzersizle ilgili bilgiye erişim.
- Sağlık ve egzersizle ilgili bilgiyi sunma.
- Gerekğinde katılımcıları uygun tıbbi veya yardımcı sağlık uzmanlarına yönlendirme.

4.Yasal ve Mesleki Sorumluluklar

<p>A. Sınıf ortamını, yerleşik tesis ve fitness endüstrisi ders öncesi standartlar ve kurallarına bağlı, denetim prosedürlerini izleyerek, riski en aza indirmek ve güvenliği optimize etmek için değerlendirme (örneğin, dış mekan, iç mekan, kapasite, döşeme, sıcaklık, havalandırma, aydınlatma, ekipman, akustik).</p>
<p><u>Bilgi</u></p> <ul style="list-style-type: none">• ACSM tesis standartları ve rehberleri.• Yasal düzenlemeler ve mevzuat.• Grup egzersiz sınıfı katılımcılarının sağlık durumunun her bir dersten önce belirlenmesi ile ilgili prosedürler <p><u>Beceri</u></p> <ul style="list-style-type: none">• Ders çevresinin değerlendirilmesi.
<p>B. Katılımcılara, riski en aza indirmek için sınıf güvenliği prosedürleri, egzersiz ve yoğunluğu seçenekleri hakkında bilgi vererek farkındalıklarını ve hesap verebilirliği teşvik etme.</p>
<p><u>Bilgi</u></p> <ul style="list-style-type: none">• Güvenli çevreye etki eden bileşenler.• Grup egzersizleri ile ilişkili güvenlik rehberleri. <p><u>Beceri</u></p> <ul style="list-style-type: none">• Ders öncesi ve ders sırasında güvenlik önlemlerinin iletilmesi.• Katılımcılara verilen talimatlara uygunluğun gözlenmesi.• Ders sırasında güvenlik önlemlerini güçlendirmek için ipucu verilmesi.
<p>C. Güvenliği optimize etmek ve yükümlülüğü azaltmak için sektörde kabul görmüş profesyonel, etik ve iş standartlarına uyma.</p>
<p><u>Bilgi</u></p> <ul style="list-style-type: none">• Ders katılımcılara yönelik uygun mesleki davranış ve sınırlar.• ACSM etik kuralları.• ACSM Sertifikalı Grup Egzersiz Eğitmeninin uygulama kapsamı.• ACSM Sertifikalı Grup Egzersiz Eğitmeni için özen/itina standartları.• Bilgilendirilmiş rıza, risk varsayımı ve feragatname.• Yerleşik ve uygulanabilir yasalar, düzenlemeler ve politikalar.• Yeterlilik sınırları.• Gizlilik, gizlilik kanunları ve uygulamaları.• Sigorta ihtiyaçları (örneğin, mesleki sorumluluk, genel sorumluluk sigortası).• Temel iş ilkeleri (örneğin sözleşmeler, ihmaller, işletme türleri, vergi işletme yapısı, reklam pazarlama). <p><u>Beceri</u></p> <ul style="list-style-type: none">• Mesleki davranışların uygulanması ve dets katılımcıları ile uygun sınırların sürdürülmesi.• ACSM etik kurallarını uygulama.

<ul style="list-style-type: none"> • Tüm grup egzersizi katılımcılarının, ilgili tüm bilgilerinin gizliliğinin sağlanması ve korunması.
<p>D. İstenmeyen/beklenmeyen olayları en aza indirmek için belirlenen bakım ve tesis politikaları standartlarına uygun prosedürleri takip ederek acil durumlara cevap verin.</p>
<p><u>Bilgi</u></p> <ul style="list-style-type: none"> • Yetişkin CPR'ı. • Otomatik harici defibrilatör. • Kazalar, çevresel ve tıbbi acil durumlar için temel ilk yardım (örneğin, ısı krampları, ısı bitkinliği, ısı inme, delinme yaraları, sıyrıklar, kontüzyonlar, basit/bileşik kırıklar, kanama/şok, hipoglisemi, hiperglisemi, burkulmalar, bayılma). • Acil müdahale için bakım standardı (örneğin, olay raporlaması, yaralanma değerlendirmesi, acil tıbbi hizmetlerin etkinleştirilmesi). • Uygun olması durumunda fitness tesisi için Acil Durum Eylem Planı. • Güvensiz veya tartışmalı egzersizler. <p><u>Beceri</u></p> <ul style="list-style-type: none"> • Acil sağlık hizmetlerinin aktive edilmesi. • CPR uygulaması. • Otomatik harici defibrilatör kullanımı. • Kazalar, çevresel ve tıbbi acil durumlar için temel ilk yardım uygulaması (örneğin, ölçme, tepki, ders ve çevresinin yönetimi). • Olay ve acil durumların raporlanması. • Güvenli ve tartışmalı olmayan egzersizlerin seçimi.
<p>E. Ulusal ve uluslararası telif hakkı yasalarına dayanarak telif hakkı materyalini ve diğer fikri mülkiyet haklarını yasal olarak güvenceye alarak orijinal ve yaratıcı çalışmaları, medyayı vb. korumak için telif haklarına saygı gösterme.</p>
<p><u>Bilgi</u></p> <ul style="list-style-type: none"> • Telif hakkı yasaları. • Telif hakkı olan materyallerin adil kullanımı. <p><u>Beceri</u></p> <ul style="list-style-type: none"> • Uygun telifli malzemeler ve müzik edinme.
<p>F. Ders katılımcıları için olumlu bir rol modeli olmak için sağlıklı yaşam uygulamalarına katılma.</p>
<p><u>Bilgi</u></p> <ul style="list-style-type: none"> • Sağlıklı yaşam uygulamaları. • Yaşam biçimi değiştirme stratejileri (örneğin, bilişsel, davranışsal). • Uygun modelleme davranışları (örneğin, tehdit etmeme, motivasyon). • Sürantrene (aşırı yüklenme) ile ilişkili riskler. • Beden imgesi kavramları ve algıları.

- Kadın sporcu triadına (beslenme bozukluğu, amenorrhea, osteoporosis) bağlı riskler.
- Yardımcı sağlık uzmanlarına sevk uygulamaları.

Beceri

- Sağlıklı yaşam uygulamaları.
- Sağlıklı yaşam bilgilerinin iletilmesi
- Ders katılımcılarına davranış değiştirme stratejilerinin bireyselleştirilmesi/kişiyeye özgüleştirilmesi.
- Süretilene (aşırı yükleme) göstergelerini tanıma.
- Gerektiğinde katılımcıları uygun yardımcı sağlık uzmanlarına yönlendirme.
- Sağlıksız beden imgesi ile ilgili sorunların/davranışların belirlenmesi ve uygun yönlendirmeler yapılması.

G. Milgi ve becerilerini geliştirmek, verimliliğini ve alanındaki profesyonelliğini artırmak için mesleki gelişim programlarına seçmek ve katılmak.

Bilgi

- ACSM sertifikası için mesleki eğitim gereksinimleri.
- Sürekli eğitim kaynakları (örneğin, konferanslar, çalıştaylar, yazışma kursları, çevrimiçi, üniversite bazlı, dergiler)
- Güvenilir, güncel ve uygun sağlıkla ilgili bilgiler.

Beceri

- Sürekli eğitimin sağlanması.
- Sınıfa liderlik ederken güvenilir, güncel ve ilgili sağlıkla ilgili bilgileri uygulama.

F. CURRICULUM VITAE

PERSONAL INFORMATION

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EDUCATION

Degree	Institution	Year of Graduation
MS	Middle East Technical University/Turkey Department of Physical Education and Sports	2014
BS	Urmia University/Iran, Department of Agriculture Engineering	2001

LANGUAGE SKILLS:

Full Professional Proficiency in English and Turkish

Native or Bilingual Proficiency in Persian and Azerbaijani

PUBLICATIONS

Mehrtash, S., & Ince, M. L. (2018). Perceived autonomy support and basic psychological needs of participants in a women's health-related exercise programme according to exercise stage of change and exercise type. *Montenegrin Journal of Sports Science and Medicine*, 7(1), 45-51.

Mehrtash, S., Koçak, S., & Altunsöz, I. H. (2015). The Effect of Yoga on Stress, Anxiety and Depression among Turkish Adults: A preliminary study. *Pamukkale Spor Bilimleri Dergisi*, 6(1), 39-49.

G. TURKISH SUMMARY / TÜRKÇE ÖZET

GİRİŞ

Üniversite öğrencileri genellikle stres yönetimi, beslenme ve madde bağımlılığı gibi kritik yaşam tarzı kararlarıyla karşı karşıya kaldıklarından, üniversite ortamında öğrencilerin ihtiyacına uygun sağlığı geliştirme programları tasarlamak ve uygulamak önemlidir (Liguori & Carroll-Cobb, 2019). Bir üniversite ortamında, sağlığı geliştirme programlarının amacı, öğrencilerin fiziksel aktivite seviyesinde, sağlıklarında ve zindeliklerinde olumlu değişiklikler sağlamak için çeşitli egzersiz programlarının yanı sıra sağlık ve zindelik bilgileri sunmaktır.

Fiziksel aktivite eksikliği, çeşitli sağlık sorunları ile yüksek oranda ilişkilidir (NIH, 2000; Wadden, Brownell ve Brownell, 2002). Bu nedenle devlet ve sivil toplum kuruluşları fiziksel aktivite düzeyini iyileştirmek için çeşitli yönergeler geliştirmektedir. Örneğin, Dünya Sağlık Örgütü yetişkinler için haftada 150 dakika orta düzeyde fiziksel aktivite veya 75 dakika şiddetli fiziksel aktivite yapmayı önermektedir (WHO, 2010). Ancak çeşitli araştırmacılar, üniversite öğrencilerinin fiziksel aktivitelerinin optimal düzeyde olmadığını belirtmişlerdir (Cengiz, İnce ve Çiçek, 2009; İnce ve Ebem, 2009; Liguori ve Carroll-Cobb, 2019). Ne yazık ki bu durum sadece üniversite öğrencileriyle sınırlı değildir. Örneğin, okul çağındaki çocukların fiziksel aktivite düzeyini küresel ölçekte değerlendiren bir meta analizi çalışması, dünya genelinde çocukların ve gençlerin % 70'inden fazlasının hareketsiz bir yaşam tarzına sahip olduğunu göstermiştir (Guthold, Stevens, Riley ve Bull, 2020).

Hareketsiz yaşam tarzı, koroner kalp hastalığı, farklı kanser türleri, diyabet, obezite ve depresyon ve anksiyete gibi hem fiziksel hem de zihinsel bozukluk riskini artırmaktadır. Öte yandan fiziksel olarak aktif olan gruplardaki bireylerin de fiziksel aktiviteyi bırakma oranının oldukça yüksek olduğu görülmektedir. Fiziksel aktivite katılımcılarının neredeyse % 50'sinin altı ay içinde egzersiz yapmayı bıraktığını ortaya

koyan çalışmalar vardır (Dishman & Buckworth, 1996; Stiggelbout, Hopman-Rock, Tak, Lechner ve van Mechelen, 2005; Arikawa, O'Dougherty ve Schmitz, 2011).

Yıllar içinde sağlık uzmanları, üniversite öğrencilerinin ihtiyaçlarını karşılayan sağlıkla ilgili fiziksel aktivite programların tasarlanmasını önermişlerdir (İnce, 2008; Lovell, Ansari ve Parker, 2010; İnce, Rahim, Yıldırım ve Mehrtash, 2014; Müftüler ve İnce, 2015). Üniversite ortamlarında sağlıkla ilgili etkin spor programlarının tasarlanması ve uygulamalarının iyileştirilmesi, üniversite eğitimi minimum üç ila dört yıl sürdüğü için öğrenciler arasında yaşam boyu fiziksel aktivite davranış değişikliğini şekillendirmede çok önemli bir role sahip gibi görünmektedir.

Programı tasarlamamanın yanı sıra, öğrencileri fiziksel aktiviteye katılmaya teşvik etmek için motivasyon faktörlerinin önemi son yıllarda güçlü bir şekilde vurgulanmaktadır. Fiziksel aktivite yapma motivasyonunu ve fiziksel aktiviteye katılımı etkileyen unsurlar arasında egzersiz eğitmenlerinin mesleki yeterlikleri önemli yer tutmaktadır. Çeşitli çalışmalarda yetkin egzersiz eğitmenlerinin yaptıkları uygulamalarla 1) obeziteden muzdarip olanlar için kilo verme programlarına katılımı destekledikleri (Jeffery, Thorson, Wing ve Burton, 1998), 2) yaşlı yetişkinlerde egzersiz katılımını artırdıkları, 3) kadın üniversite öğrencilerinde egzersiz davranışı değişim basamağını korumasına katkıda buldukları (McClaran, 2003; Fisher & Bryant, 2008) ve 4) egzersiz yoğunluğunu artırdıkları (Coutts, Murphy ve Dascombe, 2004; Hoffman ve diğerleri, 2008; Gentil ve Bottaro, 2010; Storer, Dolezal, Berenc, Timmins ve Cooper, 2014) gösterilmiştir.

Geçmişte, çeşitli araştırmalar egzersiz eğitmenleri ile yukarıda açıklanan egzersize katılım arasındaki ilişkiyi derinlemesine incelemişlerdir. Bu çalışmalar genel olarak eğitmenlerin motivasyon, dinleme ve empatik iletişim becerilerinin katılımcıların fiziksel aktivite düzeyini iyileştirmede etkili olduğunu ortaya koymuştur (McGuire, Anderson ve Trail, 2009; Mehrtash ve Ince 2018).

Medina-Jerz, Bryant ve Green (2010) egzersiz programlamada örgün eğitim almış egzersiz eğitmenlerinin egzersiz katılımcılarının bağlılığını olumlu şekilde destekleyebileceğini belirtmişlerdir. Grup egzersiz eğitmeni (GE) olmak için genel olarak kapsamı zayıf bir lisans/eğitim gerekliliği olduğundan, GE'lerin mesleki

yeterliklerini geliřtirmek için onlara sunulan sertifika programlarının niteliğini artırmak da önemlidir (Bushman, 2014). Kuřkusuz, standartlařtırılmıř eđitim ve sertifikasyon GE'lerin fizyoloji, anatomi ve beslenme gibi farklı alanlar hakkındaki bilgilerini artırmaları için gereklidir, ancak çok teorik olmaları uygulamalı bir ortamda yeterince yararlı olmayabilir (Larson, Starkey ve Zaichkowsky, 1996). Eichhoff-Shemek'e (2010) göre, egzersiz eđitmenlerinin standartlařtırılmıř sertifikasyonun yanı sıra ek eđitime de ihtiyaçları vardır (Brathwaite ve Eickoff-Shemek, 2007). Bu nedenle, grup egzersiz eđitmenlerinin öğrencilerine güvenli ve etkili bir egzersiz programı hazırlamaları ve sunmaları için yaşam boyu öğrenen olmaları gerekir.

GE'lerin, öğrencilerin fiziksel aktiviteye bađlılık düzeyini artırmadaki rolünün önemi nedeniyle, çeřitli kuruluşlar, "içerik bilgisi (ne öğretilecek)" ve "pedagojik içerik bilgisi (nasıl öğretilir)" geliřtirmek için mesleki gelişim programları sunulmasını önermektedir. Aynı zamanda, son on yılda egzersiz eđitmenleri için eğitim standartlarını artırmak için farklı mesleki gelişim programları geliřtirilmiřtir.

Örneđin, Amerikan Spor Hekimliği Koleđi (ACSM), GE'ler için mesleki yeterlilik standartları oluřturmuřtur (ACSM, 2018). ACSM GE standartları, 1) Katılımcı ve Program Deđerlendirmesi, 2) Sınıf Tasarımı, 3) Liderlik ve Öğretim ve 4) Yasal ve Mesleki Sorumluluklar dahil olmak üzere dört ana konuya dayanmaktadır. Avrupa Standartları (GE için Avrupa Aktif Mesleki Standartları, 2017) gibi GE sertifikasyonu için standartlar üzerinde çalıřan bařka kuruluşlar olmasına rađmen, ACSM standartları uzun süredir kullanılmaktadır ve küresel olarak GE sertifikasyonu için sektör standartları olarak kabul edilmektedir.

Günümüzde, profesyonellerin meslek içindeki eđitiminde Mesleki Öğrenme Grubu (MÖG) yaklaşımının kullanımı, arkasındaki arařtırma kanıtları nedeniyle bir çok mesleki gelişim arařtırmacısı/uzmanı tarafından önerilmektedir (Wenger, 1998; Hunuk, Ince ve Tannehill, 2013; Kılıç, 2019; İnce, 2019; Tannehill vd., 2020). MÖG, Bandura (1969), Vygotsky (1978) ve Wenger (1998)'in sosyal öğrenme teorilerine dayanmaktadır ve bir grup meslektaşın düzenli olarak bir araya geldiđi, uzmanlıklarını paylařtıđı ve mesleki yeterliliklerini ve müşterilerinin / öğrencilerinin performansını iyileřtirmek için işbirliđi içinde çalıřtıđı bir öğrenme topluluđudur (Hord, 2009).

MÖG'ler genellikle sınırlı sayıda (örneğin 5-8) meslektaşlardan oluşan küçük öğrenme gruplarıdır ve tüm üyeler mesleki uygulamaları üzerinde derinlemesine düşünür ve diğerlerini aktif olarak destekler. Hord (2009) 'a göre, etkili bir MÖG'de, öğrenme ortamı ortak bir vizyon / amaca, paylaşılan liderliğe, destekleyici yapısal koşullara (zaman, yer, kaynaklar), destekleyici ilişkisel koşullara (saygı, özen, güven), grupla öğrenmeye sahip olmalıdır. Tannehill vd. (2020) önemli MÖG özelliklerini yedi başlık altında belirtmektedirler: 1) sürekliliği olmalıdır, 2) katılımcıların ihtiyaç ve ilgi alanlarına dayalı olmalıdır, 3) katılımcıları aktif ve sosyal bir ortamda öğrenenler olarak kabul etmelidir, 4) öğrenme toplulukları içinde işbirliği fırsatlarını içermelidir, 5) katılımcıların pedagojik becerilerini ve profesyonel içerik bilgilerini geliştirmelidir, 6) dikkatle kolaylaştırılmalıdır ve 7) kurumsal destek almalıdır.

MÖG uygulamalarına ilişkin bilgilerimizin çoğu öğretmen eğitimi alanından gelmektedir (Blanton & Perez, 2011; Hunuk, Ince ve Tannehill, 2013; DuFour & Dufour 2013; Parker & Patton, 2017; Tannehill ve diğerleri, 2020). Hunuk, Ince ve Tannehill (2013), MÖG'lere katılan öğretmenlerin öğrencilerinin öğrenmesini geliştirdiğini saptamıştır. Öğretmen gelişimine odaklanan çalışmaların yanı sıra, literatürde performans/yarışma sporcusu antrenörü gelişiminde MÖG uygulaması çalışmaları bulunmaktadır. Bu çalışmalar, MÖG'lerin antrenörlerin mesleki gelişimini (Culver & Trudel, 2006; Garner & Hill, 2017; Bertram, Culver ve Gilbert, 2017) ve sporcularının gelişimini (Falcao, Bloom & Gilbert, 2012; Bertram, Culver ve Gilbert, 2017) olumlu etkilediğini göstermektedir.

Yukarıda bahsedildiği gibi spor bilimleri literatüründe öğretmen eğitiminde ve performans antrenörü eğitiminde MÖG'lerin tasarlanması ve uygulanmasına yönelik çok sayıda çalışma bulunmaktadır. Bununla birlikte GE mesleki gelişiminde MÖG kullanımı hakkında yeterince çalışma yoktur. Aerobik, Pilates, yoga, Zumba gibi grup egzersiz ortamlarında düzenli, anlamlı ve sağlık /zindelik odaklı egzersiz katılımlarındaki kritik rol ve sorumlulukları doğrultusunda GE'ler için MÖG'ler tasarlamak ve uygulamak, bu grubun mesleki gelişiminin desteklenmesine katkı getirebilir.

Bu bakış açısıyla, bu çalışmanın amacı üniversite ortamında çalışan GE'ler için ACSM'nin mesleki yeterlilik standartları temelinde MÖG programı tasarlamak, uygulamak ve değerlendirmektir.

Bu amaç doğrultusunda aşağıdaki araştırma soruları sorulmuştur:

1. GE'lerin MÖG programı hakkındaki düşünceleri nelerdi?
2. MÖG toplantıları altı hafta süresince nasıl gerçekleşmiştir?
 - a. MÖG toplantılarında GE'lerin ihtiyaçlarına göre ne tür bilgiler ortaya çıkmıştır?
 - b. Etkili MÖG göstergelerinin (Hord, 2009; ortak amaç, paylaşılan liderlik, destekleyici koşullar, destekleyici ilişki, bireysel/organizasyonel gelişme ve grupla öğrenme) gerçekleşme durumu nedir?
3. MÖG'ün GE'lerin uygulamaları/dersleri üzerindeki etkileri nelerdir?
 - a. Oturumların/derslerin tasarımı (amaç, içerik, uygulama ve değerlendirme).
 - b. Oturumların/derslerin uygulanması (grup yönetimi; iletişim; değerlendirme).
 - c. Ölçme ve değerlendirme.

Yöntem

Çalışma Deseni

Bu çalışma, Orta Doğu Teknik Üniversitesi (ODTÜ) spor merkezinde çalışan bir grup GE'nin mesleki yeterlikleri ve gelişimleri ile ilgilidir. Araştırmanın özellikleri ve ilgi konusu göz önünde bulundurularak nitel araştırma metodolojisinin farklı yaklaşımları arasından "vaka çalışması" yaklaşımı seçilmiştir. Merriam (1998) nitel bir vaka çalışmasını, "fenomenin önemli faktör özelliklerinin etkileşimini ortaya çıkarmayı" amaçlayan bütünsel bir yaklaşım olarak tanımlamıştır (s.29). Bu yaklaşım, tüm çalışma sürecinin derinlemesine, ayrıntılı ve son derece odaklanmış bir incelemesini içerir.

Çalışma Yeri

Çalışmanın hedef grubu Ankara'da bulunan ODTÜ Spor Merkezinde çalışan GE'lerdir. ODTÜ, beş fakülte bünyesindeki 41 lisans programında, 105 yüksek lisans ve 70 doktora programına sahip beş fakültede 27.000'den fazla lisans ve lisansüstü

öğrencisi bulunan bir araştırma üniversitesidir. ODTÜ Spor Müdürlüğüne göre, “ODTÜ spor ortamında çeşitli spor ve rekreasyon faaliyetleri vardır ve öğrenciler tüm beceri düzeyleri için geniş bir yelpazedeki programlar arasından seçim yapabilirler. Spor branşlarında yeteneklerini geliştirmek isteyen sporcular / kadınlar veya öğrenciler, bir danışman rehberliğinde veya bir antrenör gözetiminde fiziksel aktivite yapabilirler”. ODTÜ Spor Merkezi, Pilates, yoga, Zumba, serbest stil mücadele gibi ondan fazla farklı grup egzersiz programını içeren “Sağlık İçin Spor” programını sunmaktadır. GE'lerin bu oturumları planlama ve uygulama sorumluluğu vardır. Öncül ihtiyaç analizi çalışmaları, ODTÜ ortamında GE'ler tarafından grup çalışmalarının planlanması ve uygulanmasıyla ilgili sorunları belirlemiştir (Ince vd., 2014; Mehrtash ve İnce, 2018). Bu çalışmalara göre, katılımcıların programı bırakma oranları yüksektir; aktivite ortamlarının fiziksel özellikleri, hijyen, kapasite, müzik sistemlerinin standartları yetersizdir; katılımcıların psikolojik ihtiyaç tatmini orta düzeydedir; GE'lerin katılımcılarla oturum öncesi, sırası ve sonrasında etkileşimi minimum düzeydedir ve mesleki gelişimleri için sağlanan fırsatlar yetersizdir (İnce vd., 2014; Mehrtash ve İnce, 2018).

Örneklem

Çalışmanın örneklemini ODTÜ spor merkezinde çalışan toplam 24 GE'den altısı oluşturmuştur. Örneklem seçiminde öncelikle 24 GE'nin tamamına, çalışma hakkında bilgi içeren bir gönüllü katılım daveti gönderilmiştir. Çalışmaya gönüllü olarak katılmayı kabul eden altı GE araştırma örneklemini içinde yer almıştır.

Katılımcılar, ortalama 10 yıllık GE deneyimi olan dört kadın ve iki erkektir. Katılımcıların yaş aralığı 33 ile 43 yıl arasındadır ve GE deneyimleri 1 ila 15 yıl arasında değişmektedir. GE'lerin ikisi üniversite lisans derecesine sahiptir, üçü yüksek lisans öğrencisidir, biri ise doktora öğrencisidir (Tablo 1).

Tablo 6. Çalışma örnekleminin özellikleri

GE İsim	Uzmanlığı	Yaş Yıl	GE Deneyimi Yıl	Eğitim
Evren	Freestyle-Combat	34	12	Yüksek Lisans öğrencisi
Meltem	Freestyle-Combat	43	1	Yüksek Lisans öğrencisi
Alper	Pilates	39	15	Yüksek Lisans öğrencisi
Zehra	Pilates	41	14	Doktora öğrencisi
Dilara	Pilates	42	6	Lisans mezunu
Serap	Yoga	33	2	Lisans mezunu

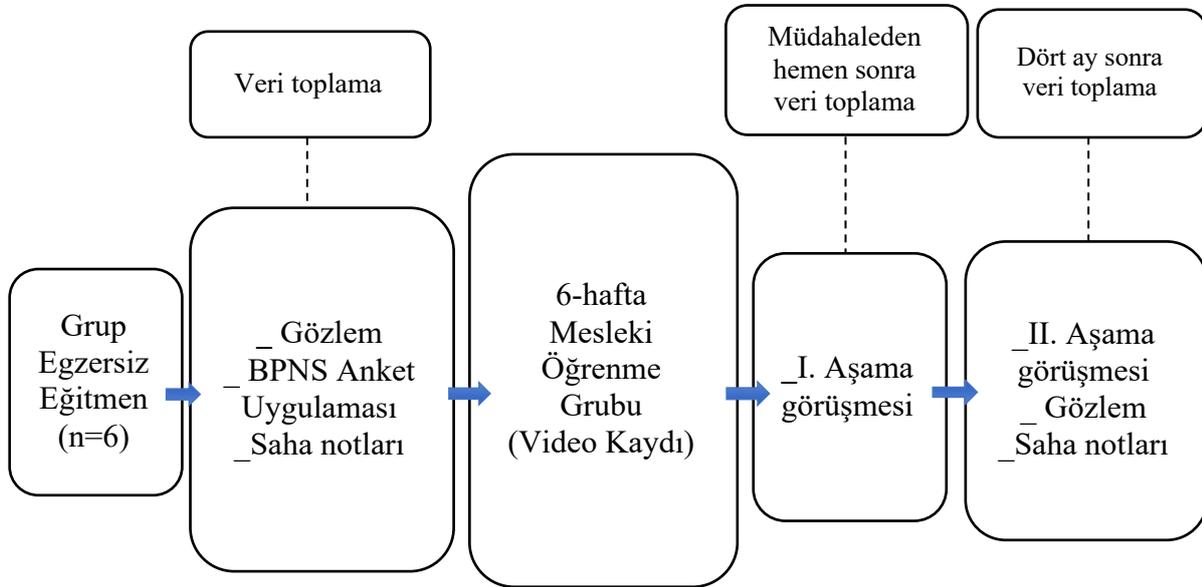
Kolaylaştırıcı

Kolaylaştırıcı, ODTÜ'de beden eğitimi spor alanında çalışan bir öğretim elemanıdır. Akademik uzmanlığı beden eğitiminde öğretim tasarımı üzerinedir. Kolaylaştırıcı, MÖG'leri tasarlama ve kolaylaştırma konusunda on yıldan fazla deneyime sahiptir (Bkz.Hunuk, İnce ve Tannehill, 2013; Kılıç, 2019). Üniversitede 15 yıldan uzun bir süredir sağlıkla ilgili fiziksel uygunluk konusunda seçmeli fitness dersi sunmaktadır. Bu çalışmada kolaylaştırıcının rolü, her bir oturumun ana konularını içeren çalışma sayfalarını hazırlamak, GE'lerin görüş ve deneyimlerini dinleyerek, bilgilerini dostça bir ortamda paylaşımlarını mümkün kılarak, toplantıları ACSM GE mesleki yeterlikleri standartları kapsamında tutmaktır.

Çalışma Zaman Planı ve Süreçler

2019 bahar döneminde, altı GE, ACSM standartları doğrultusunda mesleki yeterliklerini tartışmak için altı haftalık MÖG'e katılmaya davet edilmiştir. MÖG toplantıları başlamadan önce, altı GE'nin en az birer egzersiz sınıfı, katılımcı olmayan gözlem yaklaşımları ile gözlenmiş araştırmacı saha notları alınmıştır. Ayrıca GE'lerin egzersiz sınıfı katılımcılarına Egzersizde Temel Psikolojik İhtiyaçlar Ölçeği (BPNES;

Vlachopoulos ve Michailidou, 2006; Vlachopoulos vd., 2013) uygulanmıştır. Bu aşamadaki gözlem ve BPNES uygulamasının amacı, her GE'nin grup egzersiz sınıfı ortamını ve öğrencilerinin algıladığı özerklik, yetkinlik ve ilişkililik düzeyini anlamak ve bu bilgileri MÖG'lerin tasarımı ve uygulaması sırasında kullanmaktır. Bundan sonra, tasarlanan MÖG programı altı GE'nin katılımıyla altı hafta süresince ODTÜ Beden Eğitimi ve Spor Bölümü'nün bir seminer odasında haftada bir, iki saat süren oturumlar şeklinde uygulanmıştır. Tüm oturumların video kaydı alınmıştır. Altı haftalık MÖG programının sonunda, altı GE' ile yarı yapılandırılmış görüşmeler yapılmıştır (Şekil 1, Ek C).



Şekil 1. Çalışma süreçleri

MÖG programından dört ay sonra, altı GE'den ikisi işyeri değişikliği nedeniyle çalışmadan ayrılmıştır. Kalan dört GE'nin mevcut egzersiz sınıfları, MÖG'ler sırasında tartışılan bilgi ve becerilerin egzersiz sınıflarına aktarılma durumunu gözlemek için ziyaret edilmiştir ve saha notları alınmıştır. Son olarak, dört GE ile yarı yapılandırılmış görüşmeler gerçekleştirilmiştir.

MÖG Tasarımı

MÖG'ler, “yaptıkları bir şey için bir endişesini veya tutkusunu paylaşan ve düzenli olarak etkileşime girdikçe daha iyi nasıl yapılacağını öğrenen insan grupları” olarak tanımlanır (Wenger-Trayner, 2015). Bilginin işbirliği içinde inşa edildiğini ve öğrenmenin bağlamlarda ve topluluklarda müzakere edilmiş etkileşimler yoluyla ortaya çıktığını iddia eden sosyal yapılandırmacılığa (Vygotsky, 1978) dayanmaktadır. Bu doğrultuda, MÖG'ler meslektaşların belirlenen konuyu güvene dayalı bir ilişki şeklinde derinlemesine öğrendiği bir tür uygulama topluluğudur. Hord (2009) tarafından belirlenen, paylaşılan bir fikir veya algı, paylaşılan liderlik, zaman ve mekan gibi yapısal koşulları sürdürme, güven ve saygı gibi ilişkiyel koşulları pekiştirme ve öğrenmeyi yükseltmek için toplu öğrenmeyi içeren altı boyutu vardır (Hord, 2009).

ACSM'nin (2018) GE'ler için mesleki yeterlilik standartları, MÖG'ler için içerik çerçevesini sağlamıştır. Bu standartlar, GE'lerin paylaştıkları, tartıştıkları ve mesleki uygulamalarını yansıttıkları içeriği şekillendirmiştir. Her toplantının içeriğini içeren bir kitapçık katılımcılarla paylaşılmıştır. Kitapçık, GE'ler için ACSM standartlarının bilgi ve becerilerine ilişkin dört alan, alt alan ve performans göstergelerinin Türkçe çevirisini içermektedir (Ek E).

Bir kolaylaştırıcı, her toplantıda tartışmayı yönetmiştir. İlk toplantıda kolaylaştırıcı, GE'lerin çalıştığı ortamda yapılmış öncül ihtiyaç değerlendirmesi araştırma sonuçlarını (Ince vd., 2014; Mehrtash ve İnce, 2018) ve BPNES verilerini GE'lerle paylaşmıştır.

MÖG altı haftalık, haftada bir kez yaklaşık 2 saat toplanılan bir yapıda tasarlanmıştır ve uygulanmıştır. İlk hafta, çalışma alanında gerçekleştirilen öncül ihtiyaç analizi çalışma bulguları tartışılması yer almıştır. İlerleyen haftalarda, ACSM GE mesleki yeterlilik standartlarının sırasıyla ele alınması ve altıncı haftada ise, MÖG katılımcılarının önceki haftalarda tartışılan konular üzerinde genel değerlendirme/grup tartışması yapılmıştır (Tablo 2).

Tablo 2. *Haftalara göre MÖG toplantı kapsamı*

Hafta	Konu
1.	MÖG programının amacına ilişkin tanıtım. Spor merkezinde yapılmış öncül ihtiyaç analizi çalışması bulguları üzerinde grup tartışması
2.	ACSM standartları - "katılımcı ve program değerlendirmesi" hakkında grup tartışması
3.	ACSM standartları - "sınıf tasarımı" hakkında grup tartışması
4.	ACSM standartları - "liderlik ve öğretim" hakkında grup tartışması
5.	ACSM standartları - "yasal ve mesleki sorumluluklar" hakkında grup tartışması
6.	GE'lerin altı haftalık MÖG programı hakkındaki algısı ve görüşleri hakkında grup tartışması

Veri Toplama Araçları

Çalışmada iki grup veri toplama aracı kullanılmıştır: 1) GE'lerin egzersiz sınıfı katılımcılarının ihtiyaçlarının değerlendirilmesi için veri toplama araçları (BPNES ve PAR-Q +) ve 2) MÖG tasarımı ve uygulamasının değerlendirilmesi için nitel veri toplama araçları.

GE'lerin Egzersiz Sınıfı Katılımcılarının İhtiyaç Değerlendirmesi İçin Kullanılan Araçlar:

Egzersizde Temel Psikolojik İhtiyaçlar Ölçeği (BPNES): Bu ölçek ilk olarak Vlachopoulos ve Michailidou (2006) tarafından geliştirilmiştir ve ölçeğin (Vlachopoulos vd., 2013; Ek A) Türkçe formu çalışmada kullanılmıştır. BPNES uygulandıktan sonra veriler araştırmacılar tarafından analiz edilmiştir ve bulgular GE'lerle paylaşılmıştır. Uygulama, MÖG'lerin tasarımında veri kaynağı olarak kullanılmak ve GE'lere egzersiz sınıfı katılımcılarına ilişkin verileri toplama, analiz etme ve değerlendirmede bir model sağlamak amacıyla yapılmıştır.

Bulgular, Serap ve Alper'in öğrencilerinin GE'ler arasında sırasıyla en yüksek özerklik ve yetkinlik algısına sahip olduğunu göstermiştir. Evren, Meltem ve Zehra'nın

öğrencileri sırasıyla en zayıf özerklik, yetkinlik ve ilişkililik algısına sahip çıkmışlardır. Genel olarak, egzersiz ortamında temel psikolojik ihtiyaçlara ilişkin en yüksek algı özerklik algısında, en zayıf algı egzersiz sınıfı katılımcılarının ilişkililik algısı boyutundadır.

Fiziksel Aktivite Hazırlık Anketi (PAR-Q +): ACSM tarafından önerilen (PAR-Q +, 2018) egzersize başlamadan önce sağlık taraması için kullanılan bir ankettir. Araştırmada anketin Türkçe uyarlaması kullanılmıştır (Ertekin, 2018). Anket, ikinci MÖG toplantısında GE'lere verilmiştir. Ardından, GE'ler kendi egzersiz gruplarına anketi uygulamışlardır, verileri analiz etmişlerdir ve üçüncü MÖG toplantısında bulgularını paylaşmışlardır. Uygulama, GE'lerin özerk veri toplama, analiz etme ve egzersiz sınıfları hakkında kanıta dayalı yansıtma becerilerini geliştirmeyi amaçlamıştır.

MÖG Tasarımının Ve Uygulamasının Değerlendirilmesi İçin Nitel Veri Toplama Araçları:

Katılımsız gözlem: Gözlemcinin çalışılan duruma katılmadığı, sadece bir gözlemci olduğu veri toplama yöntemidir (Creswell, 2007). Araştırmacı, tüm MÖG toplantılarına ve MÖG katılımcılarının (GE'lerin) egzersiz oturumlarına katılmıştır. MÖG toplantıları sırasında meydana gelen tüm kritik konularla ilgili saha notları almıştır. Ayrıca, MÖG toplantılarının GE'lerin ders uygulamaları üzerindeki etkisini gözlemiştir.

Görüşmeler: Herhangi bir nitel araştırma görüşmesinin amacı, çalışmanın konusunu görüşülen kişinin bakış açısından görmektir. Bu amaca ulaşmak için nitel araştırma görüşmeleri şu özellikleri kullanır: yapılandırılmamış/yarı yapılandırılmış/yapılandırılmış görüşme tekniği, açık uçlu sorulardan yararlanma, soyutlamalar ve ortak görüşler yerine belirli durumlar ve eyleme odaklanma (Kvale, 1983). Bu çalışmada, veri toplamanın birincil yöntemi yüz yüze yarı yapılandırılmış görüşmelerdir. Görüşmeler yapmak, sınırlı nicel verilerin ötesine geçmeyi mümkün kılmıştır. Görüşmeler, MÖG'ün GE'lerin egzersiz seanslarını uygulaması üzerindeki etkisini anlamayı amaçlamıştır. Altı katılımcı ile iki aşamada görüşülmüştür.

Görüşmenin ilk aşaması, GE'lerin MÖG deneyimi hakkındaki görüşlerini anlamak

için altı haftalık MÖG programın hemen bitiminde gerçekleştirilmiştir. Görüşmenin ikinci aşaması, MÖG programının GE'lerin egzersiz uygulaması üzerindeki etkisini anlamak için dört ay sonra uygulanmıştır.

Görüşme soruları, araştırmacının konular hakkında ayrıntılı bilgi almasına yardımcı olmak için tasarlanmıştır. Görüşme soruları, literatürün dikkatli bir şekilde gözden geçirilmesi ve bu alanda uzman olan danışmanla yapılan tartışmalara dayanarak geliştirilmiştir (Ek C).

Veri Analizi

Veri analizi araştırmacı tarafından verileri anlamlandırmak için kullanılır (Tablo 3). Bu çalışmada, bir ses / video kayıt cihazı ile kaydedilen görüşme ve gözlemlerin tamamı ve saha notları kelimesi kelimesine yazıya dökülmüştür. Analizde tümevarımsal tematik içerik analizi yaklaşımı kullanılmıştır. Thomas'a (2006) göre, içerik analizi “*yapısal metodolojilerin dayattığı kısıtlamalar olmaksızın, araştırma bulgularının ham verilerin doğasında bulunan sık, baskın veya önemli temalardan ortaya çıkmasına izin verir*” (s.238). Tümevarımsal tematik içerik analizi prosedürü, ham verileri tanımlamak ve etiketlemek için metnin yakından okunmasıyla başlar. Bu etiketler analiz edilir ve kategoriler veya temalar halinde organize edilir (Creswell, 2007). Bundan sonra, kategori sistemi daha da rafine edilir, alt konular ve yeni içgörüler belirlenir.

Tablo 3. Araştırma sorusuna göre veri analizi

Araştırma soruları	Veri Toplama Araçları	Veri analizi
1. GE'lerin MÖG programı hakkındaki düşünceleri nelerdi?	<ul style="list-style-type: none">• Görüşme• Saha notları	<ul style="list-style-type: none">• Tematik analiz
2. Altı haftada MÖG toplantıları nasıl gerçekleşti?	<ul style="list-style-type: none">• Video ile kaydedilmiş altı haftalık MÖG toplantıları• Görüşme• Saha notları	<ul style="list-style-type: none">• Tematik analiz
3. MÖG programının GE'lerin uygulamaları üzerindeki etkisi nelerdi? (MÖG programından dört ay sonra)	<ul style="list-style-type: none">• Egzersiz sınıflarının gözlemlenmesi• Görüşme• Saha notları	<ul style="list-style-type: none">• Tematik analiz

Güvenilirlik

Nitel bir çalışmada güvenilirlik için iç geçerlilik, dış geçerlilik ve güvenilirlik dahil olmak üzere üç özellik vardır. Araştırmada iç geçerliliği anlamının hayati noktası, gerçekliğin anlamıdır. Nitel araştırmanın temel varsayımlarına dayanarak, gerçeklik sürekli değişir ve çok boyutludur. Bu çalışmada, yorumları birleştirmek ve tüm kaynakları bir araya getirmek için üçgenleme kullanılmıştır. Veriler araştırmacı tarafından analiz edildikten sonra, bir kopyası ve aktarılan tüm veriler bir uzmanla paylaşılmıştır ve uzman görüşleri alınmıştır.

Dış geçerlilik (Genelleştirilebilirlik), diğer durumlarda araştırma sonuçlarını genişletmekle ilgilidir. Nitel araştırmanın amacı, genel olarak bir grup insan için neyin doğru olduğunu anlamak yerine, bir vaka veya küçük bir örneklem hakkında ayrıntılı ve kapsamlı bir anlayış kazanmaktır. Bu çalışmada, çalışmanın bağlamının ayrıntılı bir tanımı sunulmuştur.

Güvenilirlik, sonuçların tutarlılık derecesi ve kararlılığı ile ilgilidir. Sosyal bilimlerde güvenilirlik zorlu bir konudur çünkü insan davranışı istikrarlı ve tutarlı değildir. Nitel bir araştırmada temel soru, nitel araştırma sonuçlarının sunulan verilerle uyumlu olup olmadığıdır. Çalışmada, güvenilirliği ve tutarlılığı artırmak için araştırmacının konumu, üçgenlemesi ve akran kontrolü gibi stratejiler kullanılmıştır.

Etik Konular

Çalışmaya başlamadan önce Orta Doğu Teknik Üniversitesi İnsan Araştırmaları Etik Komitesi'nin onayı alınmıştır. Çalışma sırasında, her katılımcının hakları “American Psychological Association” ın (APA) “Ethical Principles of Psychologists and Code of Conduct” (2002) araştırma yönergelerine göre korunmuştur.

Bulgular

Birinci Araştırma Sorusu: Katılımcıların MÖG Programı Hakkındaki Düşünceleri Nelerdir?

Bu araştırma sorusunun bulguları, MÖG'den hemen sonra (ilk görüşme) yapılan görüşme kaynaklıdır. Bulgulara göre GE'ler MÖG programına katılımdan genel olarak memnun kalmışlardır. Aşağıda GE'lerin programdan memnuniyetleri ile ilgili bazı ifadeleri sunulmuştur.

Hiç şüphesiz faydalı bir öğrenme programıydı. Sınıfta nasıl etkileşim kuracağıma dair mükemmel fikirlerim ve etkili gruplar oluşturma konusunda düşüncelerim var. Sınıf tasarımı, ders akışı, güvenlik ve aktif katılım gibi konularda daha iyi fikirler ve projeler geliştirmeyi öğrendim. (Dilara)

[MÖG sırasında] Her seansta biraz daha deneyim kazandım. Elbette Evren'le kıyaslanamıyorum ama kendimi geliştirmek için her hafta gayretle öğrenmeye çalıştım. (Meltem)

GE'ler MÖG sürecinde kendileri için en yararlı konuların ACSM mesleki yeterlik standartları hakkında bilgilenme, mesleki bilgilerinin gözden geçirme fırsatı ve öğrenci ihtiyaçlarını belirlemede veri toplama araçlarının önemini görme olduğunu belirtmişlerdir.

GE'ler ACSM standartları ile ilgili görüşlerini şu şekilde dile getirmişlerdir.

Hukuki ve mesleki sorumlulukla ilgili olarak, herhangi bir yaralanmanın olmasını önlemeyi ve [PAR-Q + kullandıktan sonra] şüphe altında kalmaktan uzak durmaya özen göstermeyi öğrendim. Sağlıkla ilgili programlar geliştirenler bu risk altında. Elbette 'liderlik ve öğretim' ile ilgili birçok şey öğrendim. Bu programa katılmadan önce bu konuları uyguladığımı farkındaydım ama katılımdan sonra üzerinde derinlemesine düşünmeye başladım. Örneğin, bir hareket için üç öğretim

yöntemimiz varsa, doğru ve en akıcı türü öğretmek daha iyi olabilir. “Sınıf tasarımı” ile ilgili olarak bunu zaten grup egzersiz seansına uyguluyorum. Genellikle seanslarımızda uygun olanı bulmaya çalışırız. “Katılımcı ve program değerlendirmesi” ile ilgili olarak, bu konunun en kritik konu olduğunu düşünüyorum. Bence bu alanda çalışan tüm çalışma arkadaşlarımla bilgilendirilmesi gerekiyor. MÖG programı, katılımcıları sağlıklı ilgili fitness programlarına katılmaya ikna eden (motive eden) konulara daha fazla dikkat etmemize yardımcı oldu”. (Evren)

“Özellikle “liderlik ve öğretme” kısmında en kapsamlı yüzdeye sahip olan tartışmalar iyiydi. Sınıf tasarımı da etkileyiciydi, ancak biraz daha fiziksel şartlandırma içerdiği için bu konuyla daha çok ilgileniyorum. Motivasyon tekniklerinden bahsettik. Evren'in spor salonundaki pratik bilgisi iyiydi. Zehra'nın araştırmasını dinlemek güzeldi (öğrenciler arasındaki fiziksel aktivite düzeyiyle ilgili). Daha fazla insanı egzersiz yapmaya teşvik etme fikrine sahip olmayı seviyorum. Beni heyecanlandırıyor”. (Meltem)

“Öğrendiklerimizin hepsi kenarda ve öğrendiklerimi bir sonraki kursa koymaya çalışacağım. Az önce verdiğimiz örnekte olduğu gibi - öğrencilerle dersten önce ve sonra iletişim kurmak. Bu altı hafta boyunca aldığım tüm bilgileri onlarla paylaşmaya çalışacağım. Şu anda düşünebildiğim, öğrencilerle daha sık diyalog kurmak, bu alıştırma programından ne beklediklerini öğrenmek ve hatta dersin içeriğini onların beklentilerine göre değiştirmek. (Alper)

GE'ler MÖG programına katıldıktan sonra web kaynakları, makaleler gibi diğer kaynakları kullanarak kendilerini geliştirme ihtiyacı hissettiklerini söylemişlerdir.

Her zaman kendimi geliştirmeye çalışıyorum çünkü bu (bilgi) her gün değişebilen bir şey. Bugün, bir formda bir hareket yapılması tavsiye edilirken, ertesi gün, bu yolun yanlış olduğunu - davranış şeklinizi değiştirmeniz gerekiyor. Bu yüzden her zaman kendimi güncel tutmaya çalışıyorum. (Zehra)

Kütüphaneye gidip kitap aramıyorum, ancak internette, sosyal medyada vb. mesleki bilgilerimle ilgili bir şeyler gördüğümde her zaman bakıyorum. Benim bilgimle uyuyor mu, çelişkili bir şey varsa hangisi doğrudur? Malesef zamanla sorun yaşadığım için çok araştırma yaptığımı söyleyemem. (Alper)

GE'ler MÖG'de BPNS ölçeği ve PAR Q+ bulguları incelemesi sonucunda bu ve benzeri araçlarla öğrencilerinin ihtiyaçlarının ve gelişimlerinin gözlenmesi ve ölçme ve değerlendirilmesinin önemini fark ettiklerini ifade etmişlerdir.

Sınıfı tasarlarlarken tüm katılımcıların seviyesini bilmediğimiz için genel düzeyde ders yapmaya çalışıyoruz. [İhtiyaç belirleme yöntemleriyle] Katılımcıların seviyelerini belirledikten sonra, programları ihtiyaçlarını karşılayacak şekilde planlayabiliriz. (Zehra)

İkinci araştırma sorusu: MÖG toplantıları altı hafta süresince nasıl gerçekleşmiştir?

Bu araştırma sorusu altında, GE'lerin ihtiyaçlarına göre ortaya çıkan bilgilerle MÖG toplantılarının altı hafta boyunca nasıl gerçekleştiği ve MÖG müdahalesinin Hord'un (2009) etkili MÖG kriterlerini karşılama durumu ele alınmıştır.

MÖG Toplantılarında GE'lerin İhtiyaçlarına Göre Ne Tür Bilgiler Ortaya Çıkmıştır?

Yürütülen MÖG programının altı haftalık tüm toplantıları, toplantı kayıtlarının çözümlenmesi ve araştırmacının saha notları üzerinden detaylı bir şekilde incelenmiştir. Bulgular, genel olarak toplantıların MÖG tasarımına uygun bir şekilde gerçekleştiğini göstermiştir.

İlk toplantıda, 1) MÖG programının temel amacı, 2) sağlıkla ilgili egzersiz derslerine katılımın önündeki engeller, 3) öğrencilerin bilgilendirilmesi için bazı öneriler ve 4) MÖG programına katılım nedenleri tartışılmıştır.

Kolaylaştırıcı, altı haftalık MÖG programının amacını öncül ihtiyaç analizi çalışmalarına ve ACSM mesleki yeterlilik standartlarına dayanarak GE'lerin mesleki alan bilgisini desteklemek olarak belirtti. Daha sonra, 1) katılımcı ve program değerlendirme 2) sınıf tasarımı 3) liderlik ve öğretim 4) yasal ve mesleki sorumluluklar dahil olmak üzere ACSM mesleki yeterlilik alanlarının her biri üzerinde genel olarak grup tartışması şeklinde duruldu. İlerleyen oturumlarda ACSM'nin dört standardının MÖG tartışmaları için referans olarak kullanılacağı ancak grubun ihtiyaçlarına göre yeni konularında tartışılacağı belirtildi (örneğin, yöneticilerden kaynaklanan sorunlar).

İkinci toplantıda, kolaylaştırıcı tarafından ilk toplantının özeti yapıldıktan sonra ACSM tarafından GE mesleki yeterlikleri için tanımlanan dört boyutu içeren kitapçık paylaşılmıştır. Devamında, birinci standart alanı olan "katılımcı ve program değerlendirme" hakkında grup tartışması yapılmıştır. GE'lerin tartıştığı konular arasında 1) ACSM standartlarına göre güvenliği optimize etmek ve risk faktörlerini en aza indirmek için katılımcı tarama prosedürlerinin değerlendirilmesi ve oluşturulması, 2) farklı veri toplama araçları uygulayarak katılımcıların sağlık riskinin gözden

geçirilmesi, 3) katılımcıların kronik sağlık sorunlarının taranması yer almıştır. Toplantı verilerinin analizi sonucunda üç tema tanımlanmıştır. Bunlar arasında, a) öğrencilerin ihtiyaçlarına göre kategorize edilmesi, b) kapsamlı bir ihtiyaç değerlendirmesi uygulanması ve c) sağlık sorunlarını tarama vardır.

Üçüncü toplantıda GE'ler için "sınıf tasarımı" ele alınmıştır. Bu oturumda 1) katılımcıların ihtiyaçlarına göre her oturum için amaç ve hedef belirleme, 2) etkili bir antrenman tasarlamak için sınıf içeriğini tanımlama, 3) güvenli bir çalışma sağlamak için uygun egzersizler seçmek ve 4) sınıfın amacına göre uygun bir egzersiz seçmek üzerinde durulmuştur. Veri analizi sonucunda a) fiziksel aktivite seviyesi, b) hedefe yönelik sınıf tasarımı, c) güvenli çalışma sağlama ve d) uygun öğretim stilini seçme olmak üzere dört tema oluşmuştur.

Dördüncü toplantıda GE'ler için "liderlik ve eğitim" üzerinde durulmuştur. "Liderlik ve öğretim" başlığı altında bulunan ilk beş gösterge bu toplantıda, kalanlar ise beşinci toplantıda tartışılmıştır. Tartışılan konular içinde 1) yeni katılımcıları, müziği, ekipmanı tarayarak sınıf ortamını göz önünde tutma, 2) iletişim becerileri, davranış stratejileri ve etkili motivasyon becerileri ile olumlu bir egzersiz ortamı oluşturma, 3) alıştırmaları ACSM standartlarına dayalı olarak güvenli bir şekilde gösterme, 4) katılımcılar arasında güvenliği ve motivasyonu artırmak için sözlü ve sözlü olmayan ipuçlarını sunma ve 5) katılımcıların seans sırasındaki durumlarını izleme yer almıştır. Kalan unsurlar ise [6) alıştırmaları bireyin veya grup ihtiyaçlarının düzeyine göre değiştirme, 7) endüstri yönergelerine göre ses ekipmanını izleme, 8) katılımcıların endişelerine yanıt verme ve teknikleri kullanma çatışmayı önleme ve 9) katılımcıların sağlık ve zindeliğini sağlayarak bilgilerini, bağlılıklarını ve zevklerini eğitmek sağlanan kaynaklar ve bilgiler] beşinci toplantıda tartışılmak üzere bırakılmıştır. Tartışma verilerinin analizinden a) sınıf ortamını hazırlama, b) olumlu bir egzersiz ortamı oluşturma, c) performans yönelimi, d) motive etme becerileri, e) katılımcıların hareketlerini izleme, f) alıştırmaları değiştirme, g) ses ekipmanının izlenmesi, h) katılımcının ilerlemesi ve i) katılımcıların eğitilmesi temaları oluşmuştur.

Beşinci toplantıda, GE'ler ACSM'in üçüncü alanıyla ilgili kalan konuları tartışmayı bitirdikten sonra, "yasal ve mesleki sorumlulukları" tartışmışlardır. Bu konuda 1) sınıf ortamını değerlendirmek (örneğin, havalandırma, daha hafif ve akustik), 2) egzersiz

katılımcılarının riski en aza indirmek için egzersiz yoğunluğu veya sınıf güvenliği prosedürü hakkında farkındalığını teşvik etmek, 3) güvenliği optimize etmek ve mesleki risk sorumluluğunu azaltmak için profesyonel, etik ve iş standartları, 4) istenmeyen olayları en aza indirmek için acil durumlara müdahale etme, 5) ulusal ve uluslararası telif hakkı yasalarına dayalı telif haklarına saygı, 6) olumlu rol model olmak için sağlıklı bir yaşam tarzı izleme, 7) alandaki profesyonelliği en üst düzeye çıkarmak için sürekli olarak bilgi ve becerileri geliştirmek için sürekli eğitim programlarına katılım üzerinde durulmuştur. Bu alandaki tartışmalardan oluşturulan temalar arasında a) sınıf ortamı (örneğin, havalandırma, daha hafif ve akustik), b) katılımcıların farkındalığını arttırmak, c) mesleki, etik ve iş standartlarını takip etmek, d) acil durumlara müdahale etmek, e) telif hakkı yasalarına saygı, f) olumlu rol model olmak ve g) kendini güncelleme/mesleki gelişimi sürdürme yer almıştır.

Son toplantı, MÖG katılımcılarının MÖG'le ilgili düşüncelerini özgürce ifade etmelerine ve egzersiz sınıflarını etkileyen yöneticilerle ilgili konulara odaklanmıştır. Bu oturumda ilk olarak kolaylaştırıcı, GE'lerin öğrencileri düzenli olarak egzersize katılmaları için motive etmedeki kritik rolünü vurguladı. Daha sonra GE'lerin öğrencilerle ilgili gözlemleri, ilişki geliştiren yorumları, yeterlilik ve egzersiz dersleri sırasında otonomi desteği tartışıldı. Son olarak, yöneticilerin tutum ve uygulamaları ve bunların derslere olan etkileri tartışılarak MÖG programı tamamlandı.

Etkili MÖG Göstergelerinin Gerçekleşme Durumu Nedir?

Bu başlıkta, Hord (2009) tarafından etkili MÖG'ler için kriter olarak tanımlanan MÖG'lerin ortak bir amaç yaratmadaki başarısı, ortak liderlik, destekleyici çevresel koşullar, destekleyici ilişkisel koşullar, grupla öğrenme ve bireysel/örgütsel gelişmeye ilişkin bulgular sunulmuştur. Sonuçlar, mevcut MÖG programının, Hord tarafından ifade elen kriterleri yansıttığını göstermektedir.

Paylaşılan vizyon / amaç ile ilgili olarak MÖG'lerin tasarım ve uygulama özellikleri ve katılımcıların açıklamaları, ACSM standartları bağlamıyla bağlantılı GE'ler için ortak bir vizyon ve amaç olması örnek olarak verilebilir. Alper bu konudaki ifadesi aşağıda sunulmuştur:

Çok memnunum çünkü (bu program) olaylara bakış açımızı genişletti, bize vizyon ekledi ve ACSM çerçevesinde daha farklı ve eleştirel düşünebiliriz. (Alper)

Paylaşılan liderlik, MÖG programında katılımcılar arasında sürekli gelişim için bir fırsat yaratan ve aynı zamanda değerleri ve fikirleri paylaşmak ve başkalarının görüşlerine açık olmak için bir ortam geliştiren çok önemli bir kavramdır. MÖG toplantıları sırasında, tüm GE'lerin eşit konuşma ve tartışmaları yönetme şansı vardı. Kolaylaştırıcının rolü başkalarına öğretmek veya dikte etmek değildi. Toplantılar sırasında gözlem bulgularının paylaşımı, herkesin belli konularda liderlik alması ortak liderliği destekledi. Bu konuda Serap'a programla ilgili tecrübesi ve MÖG programıyla ilgili kendisini memnun eden faktörler sorulduğunda şu yanıtı verdi:

Görüşmelerden beni en çok memnun eden unsurlar, farklı alanlarda bilgi edinme ve deneyimlerimi paylaşma şansı elde etmemdi. (Serap)

Alper'de görüşmede şunları söyledi:

Diğer GE'ler ve kolaylaştırıcı ile etkileşim şansına sahip olmak benim için çok faydalı oldu. Seanslar sırasında deneyimlerimi ve bilgilerimi de paylaştım. Herkes için fırsat eşitliği vardı. (Alper)

Destekleyici yapısal koşullar (zaman, yer ve kaynaklar/imkanlar) etkili MÖG'lerin önemli özelliklerinden biridir. Bu koşulların, MÖG uygulamasında yeterince karşılandığı görülmüştür. Katılımcılar ilk oturum için MÖG programına girdiklerinde kolaylaştırıcı ve diğer MÖG katılımcıları tarafından sıcak bir şekilde karşılandılar. WhatsApp üzerinden MÖG programına katılmaları için davet edildiler ve toplantıların amacı kendileriyle kısaca paylaşıldı. Programa katıldıktan sonra kolaylaştırıcı çalışma sayfasını katılımcılarla paylaştı ve çalışmanın amacını ayrıntılı olarak açıkladı. Ayrıca öncül araştırmalarda çalışma sahasında egzersiz sınıflarında ve GE'lerle ilgili ortaya konan sorunlar katılımcılarla paylaşıldı. Zehra, bu programda ihtiyaç ve taleplerinin karşılanıp karşılanmadığı sorulduğunda şunları ifade etmiştir:

Katılımımdan memnunum. Diğer eğitimlerle iletişim kurma fırsatım oldu. Çünkü normalde herkes hemen egzersiz seansına gelir ve gider. Genel olarak iletişimimiz sınırlıdır. (Ancak MÖG toplantıları aracılığıyla) deneyimlerini kendi gruplarında paylaştılar. Ortam, stresi olmayan bir ortamda bol miktarda eğitim materyali ile bir araya gelmenin yanı sıra iletişimi de destekledi. (Zehra)

Evren, bu programda kullanılan kaynaklarla ilgili görüşlerini aşağıdaki gibi ifade etmiştir:

Yurtdışında kullanılan kitapçığın veya materyallerin program aracılığıyla çıkarılması ve bizimle paylaşılması beni çok mutlu etti. Bu değerli kaynak, kendimi geliştirmeme yardımcı oldu. Benim için gerçekten faydalı oldu.

Destekleyici ilişkisel koşullar (saygı, ilgi, güven), grup üyelerinin zorlu bir durumla başa çıkmada birbirlerine yardım etmesi ve birlikte bir çözüm bulmaya çalışması olarak ele alınabilir. Serap, katılımcılar arasında en yeni eğitmen olarak şunları söyledi:

Bu grupta yeni olmama rağmen deneyimlerimi anlatırken kendimi olumlu hissediyordum. Benimle aynı fikirde olmadığım için başkaları tarafından yargılanmayacağıma veya başkaları tarafından reddedilmeyeceğime emindim.

Grupla öğrenme, bireylerin birlikte öğrenmelerine yardımcı olmak için bilgileri bir topluluk içinde organize bir şekilde paylaşma yeteneğidir. Mevcut MÖG programına katılım, bilgi istemeyi, fikirleri değerlendirmeyi, işyerinin sorunlarını izlemeyi ve onların düşünce ve deneyimlerini paylaşarak etkileşim kurmayı amaçlamıştır. Evren bu konuda şunları ifade etmiştir:

Toplantılar sayesinde, göz teması kurma, hareketleri değiştirmek için el komutunu kullanma ve özellikle katılımcıların sağlık geçmişine dikkat ederek onları iyi ve güvenli bir şekilde yönlendirmenin önemini fark ettim. Başkalarını dinledikten sonra, (Bu program) meslektaşlarım ve benim için çok etkili olduğunu düşünüyorum. (Evren)

Sema ayrıca şunları söyledi:

Bu toplantılarda çok şey öğrendim. Bildiğiniz gibi ben bir yoga hocasıyım ve sadece yogayı biliyorum ve ayrıca bu alanda yeniyim. Zindeliğin diğer yönleri hakkında sınırlı bilgiye sahibim. Pilates, serbest stil dövüş gibi farklı alanlardan eğitmenleri dinleme şansım oldu ve kendimi geliştirmeme ve bakış açımı genişletmeye yardımcı oldu. Bu programa katıldığım için çok mutluyum. (Sema)

Bireysel/Organizasyonel gelişim bir kuruluşun performansını iyileştirmenin en önemli aracıdır. Bunun için personelin mesleki yeterliliklerini desteklemek gerekir. Mevcut çalışma MÖG bağlamı oluşturarak GE'lere yardımcı olmak için yapılmış olsa da, nihai çıktı Spor Merkezinin organizasyonel gelişimini etkileyecektir. Bu çalışmadaki MÖG katılımcıları, öğrencilerin egzersiz programına düşük bağlılığı ve egzersizi bırakmalarına neden olan konuları derinlemesine sorgulamışlardır. Bu bağlamda GE'lerin kendi mesleki yeterliliklerini sorgulaması ODTÜ Spor Merkezinin organizasyonel performansını olumlu etkileyecektir.

Üçüncü Araştırma Sorusu: MÖG'ün GE'lerin Uygulamaları/Dersleri Üzerindeki Etkileri Nelerdir?

Bu araştırma sorusu, MÖG programının katılımcıların dört ay sonra egzersiz dersi uygulaması üzerindeki etkisini incelemeyi amaçlamıştır. Bu soruyu cevaplamak için müdahaleden dört ay sonra, dört MÖG katılımcısının sunmakta oldukları egzersiz sınıflarında yapılan gözlemler ve bunu takiben yapılan yarı yapılandırılmış görüşme bulguları kullanılmıştır. Bulgular, MÖG programının GE'lerin egzersiz ders uygulamalarını olumlu etkilediğini ve MÖG'deki öğrenmelerinin bu derslere aktarıldığını ortaya koymuştur. Örneğin, Serap'a dört ay sonra MÖG programının etkisi sorulduğunda aşağıdaki açıklamayı yapmıştır.

Özellikle kolaylaştırıcıdan öğrendim; 'Bir kişinin gelişimini takip etmek için bir dönem ders programlıyorum' dedi. Bunu ilk hafta yapacağız ve ikinci hafta bunu yapacağız, ancak geliştirme için bir program geliştirmem gerektiğini anladım. Bu dönemin sonunda ne görmek istiyorum? Bu öğrenci sınıfa geliyor ama ben bu öğrenciden ne istiyorum? Duruşunun düzeltilmesini mi yoksa sadece zihinsel farkındalığının geliştirilmesini mi istiyorum? Bunu tanımlamam gerektiğini burada öğrendim. Sınıf tasarımı da önemlidir. Sınıf temiz olmalı ki bu önemli. Belirli bir saatten sonra ders ortamı çok ısınır ve havasız kalır. Öğrenci seansı mutlu bırakmazsa egzersize devam etmeyecektir. (Serap)

Saha gözlem bulguları, Serap'ın MÖG öncesi ders gözlemlerine göre 1) iletişim becerisini geliştirdiğini, 2) seansı aktif tutmak veya doğru hareketi göstermek için öğrencileri daha etkili yönlendirdiğini, 3) hava, ışık, müzik gibi çevre hakkında daha fazla ilgi gösterdiğini, 4) öğrencilerin sağlık sorunları hakkında daha fazla bilgili olduğunu ve 5) hedefe yönelik bir koreografi planlaması yaptığını desteklemiştir.

Evren ise MÖG toplantılarının, verdiği derslerin görsel ve işitsel formatı gibi egzersiz seansını etkileyebilecek farklı konular hakkında derinlemesine düşünmesine yardımcı olduğunu belirtmiştir.

Seanslarımın ne kadar etkili olduğunun farkındaydım, ancak materyal formda bilgi almak hoşuma gitti. ODTÜ öğrencileri arasında en etkili seansların benim seanslarımın ve yoganın olduğu söylendi.... bu durum bana etkili olma ve seansımın tüm unsurlarının kontrolünü ele geçirme yolunu anlamamı sağladı. Koreografimi buna göre hazırlamayı düşünmeye başladım. Benim için iyiydi. (Evren)

Evren'in sunduğu derslerde yapılan gözlemler, Evren'in ifadelerini desteklemiştir. Alper örneğinde ise, MÖG öncesi ilk gözlem seansına kıyasla Alper'in derslerinde 1) hava, ışık ve müzik gibi çevresel konulara daha fazla dikkat ettiği, 2) öğrencilerle iletişim kurmaya çalıştığı ve 3) öğrencileri yürüyüş hakkında fikir vererek aktif olmaya motive ettiği gözlenmiştir. Görüşme bulgularında Alper, MÖG programının ışığı, ısıyı ve ayrıca hava sirkülasyonunu kontrol etmek gibi çevre konusunda daha tetikte olmasına neden olduğunu belirtmiştir. Ayrıca, MÖG programı sürecinde GE olarak öğrencilerinin fiziksel aktivite düzeyini takip etmesinin gerekliliğini anladığını ve öğrenci fiziksel aktivite düzeyine uygun koreografyi hazırlamaya dikkat etmeye başladığını vurgulamıştır.

Işık ve müziğin sesi gibi çevre konularına dikkat etmeyi öğrendim çünkü bazı öğrenciler onların katılımlarını olumsuz etkilediğinden bahsetti. Bir diğer konu da iletişimle ilgili. Çoğu zaman zaman sınırlaması nedeniyle öğrencilerle bağlantı kurmak imkansız olsa da bu toplantılardan sonra bu ortamda diğer kulüpler gibi öğrencilerin de hocaları ve diğer katılımcılarla bağlantı kurmaktan hoşlandıklarını öğrendim. (Alper)

Tartışma ve Sonuç

Çalışma, GE'lerin MÖG programına katılımdan yüksek memnuniyeti olduğunu ve katılım sonucunda önemli mesleki gelişim sağladıklarını göstermiştir. Bu durum, daha önce MÖG uygulamasının öğretmen eğitimindeki (Hunuk, İnce ve Tannehill, 2013; DuFour ve Dufour 2013; Parker ve Patton, 2017; Tannehill vd., 2020) ve antrenör eğitimindeki (Culver & Trudel, 2006; Garner & Hill, 2017; Bertram, Culver ve Gilbert, 2017; Kılıç, 2019) olumlu etkilerini gösteren çalışmalardaki bulgularla uyumludur. Halihazırdaki çalışma, öğretmen ve antrenör eğitiminde olduğu gibi iyi planlanmış MÖG'lerin GE'ler içinde önemli bir mesleki gelişim aracı olduğunu göstermiştir ve literatürü bu doğrultuda geliştirmiştir.

Çalışmada kullanılan MÖG tasarımı ve uygulamalarının mesleki gelişim literatüründeki nitelikli MÖG uygulaması ölçütlerini karşıladığı saptanmıştır. MÖG uygulamaları bulguları 1) işbirliği içinde öğrenme; 2) deneyim ve vizyonu paylaşmak; 3) öğrencinin öğrenmesine odaklanmak; 4) katılımcılar arasında öğrenmeyi artırmak için etkili diyalog kullanmak ve (5) tek başına öğrenmek yerine birlikte öğrenmek için çevresel koşulları desteklemek (Dufour & Eaker, 1999, Hord, 2004, Murphy, 2004;

Tannehill ve diğeri, 2020) boyutlarının bu çalışmada sağlandığına dair veri sunmuştur.

GE'lerin, MÖG toplantılarında tartışılan bilgi ve becerileri egzersiz sınıflarına aktardığı saptanmıştır. Özellikle katılımcıların sağlık durumlarını takip etmek, öğrencinin ihtiyaçlarına göre sınıf tasarımını ve öğretimini değiştirmek, egzersiz seansları sırasında öğrencinin egzersiz yüküne tepkisini anlamak için gözlem becerilerini geliştirmek, sınıf hedeflerini öğrencilerle iletmek MÖG'lerde tartışılan ve GE'ler tarafından kendi egzersiz derslerine aktarılan bilgi ve beceriler arasında yer almıştır.

Sonuç olarak, ACSM mesleki yeterlik standartlarına dayalı tasarlanmış ve nitelikli MÖG uygulama unsurlarının kullanıldığı MÖG'ler GE'lerin mesleki gelişimlerinde etkili bir mesleki gelişim yöntemidir. Bu bulgular doğrultusunda, GE'ler için MÖG uygulamaları ve gelecekteki araştırmalar için aşağıdaki öneriler yapılmıştır.

MÖG Uygulamaları İçin Öneriler

1. GE'lerin mesleki gelişimi için sürekli ve sürdürülebilir bir şekilde MÖG yaklaşımı kullanılmalıdır.
2. GE'ler için MÖG'leri yönetecek kolaylaştırıcılar eğitilmelidir.
3. ACSM veya benzeri GE mesleki yeterlik standartları MÖG tasarımlarında dayanak olarak kullanılmalıdır.
4. GE'ler öğrencilerinden ve çalışma ortamından veri toplamaya teşvik edilmelidir. MÖG'lerde, topladıkları bu verileri işlemeleri ve bulgularını değerlendirerek yansıma yapmaları sağlanmalıdır.
5. GE'ler için tasarlanan MÖG'leri nitelikli MÖG unsurlarını taşıması sağlanmalıdır.
6. GE'lerin MÖG'lerden memnuniyetine, öğrenmesine ve öğrendiklerini kendi ders uygulamalarına aktarımına odaklanılmalıdır.

Gelecekteki araştırmalar için öneriler:

1. MÖG'lerin GE'lerin mesleki gelişimi üzerindeki etkisini incelemede nicel araştırma yaklaşımının kullanılması önerilir.
2. GE'lerin ders planlama, sunma ve ölçme ve değerlendirme bilgi, beceri ve uygulamaları ile ilgili veri toplanan paydaşlar artırılabilir (örneğin öğrenciler, kolaylaştırıcılar, yöneticiler).

3. GE'ler için büyük ölçekli (çoklu MÖG) çalışmaları tasarlanabilir.
4. Çalışma fitness kulüpleri gibi farklı çevrelerde çalışan GE'ler için uyarlanabilir.

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