STRENGTHENING STAFF KNOWLEDGE TO SUPPORT ADULTS WITH DISABILITIES IN COMMUNITY FITNESS FACILITIES

by

John A. Jadach

An education leadership portfolio submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Doctor of Education in Educational Leadership

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ABSTRACT

Persistent health disparities among adults with disabilities are linked, in part, to limited disability-specific knowledge among community fitness staff, which creates a barrier to the consistent delivery of inclusive, evidence-informed wellness programming (Obrusnikova, Jadach, Cavalier, & Firkin, 2023; Rimmer & Vanderbom, 2016). In my role as co-founder of Endless Possibilities in the Community (EPIC), a 501(c)(3) nonprofit that partners with individuals with disabilities and community stakeholders to promote inclusive community fitness, I undertook this Educational Leadership Portfolio (ELP) with the specific goal of identifying, implementing, and evaluating an example of "good practice" in professional development training for EPIC's fitness staff. The long term goal is to reduce health disparities among adults with disabilities by strengthening staff knowledge, self-efficacy, and instructional competence while increasing participant engagement in physical activity.

This ELP study first identified the Empowerment Model (Moran, Block, & Taliaferro, 2014) as an example of a professional development framework for inclusive fitness. Building on that foundation, the study then implemented and evaluated the *Strategies of Success* (SOS) online instructional modules, designed to increase EPIC staff members' knowledge in disability awareness and inclusive fitness practices within community fitness facilities (CFFs). Using a mixed-methods design, the study

quantitatively assessed pre/post knowledge and self-efficacy of staff participants across four SOS modules (*Addressing Challenging Behaviors, Planning Inclusive Programs, Modifying Instruction for Inclusiveness, Accessibility Considerations*) and gathered qualitative feedback on application to practice through focus groups. Study participants demonstrated a mean knowledge gain of 22 points (scale of 0–100) on the four modules. Self-efficacy was examined as a complementary outcome and improved on average (0.5 on a 0–10 scale). Focus group data indicated that the modules were valuable for onboarding new staff, equipping them with foundational disability awareness and fitness-specific knowledge and strategies, while also providing experienced staff with a review and opportunities to expand their repertoire of inclusive instructional knowledge and practices. Focus group findings informed creation of a draft EPIC professional development policy, procedural guidelines, and a staff resource manual. The intent is to use these mechanisms to embed ongoing knowledge building into organizational routines and support sustainability.

Taken together, the findings demonstrate that CFF staff training needs, such as those at EPIC, can be addressed through a research-informed professional development approach centered on knowledge acquisition, which may serve as a foundation to increase staff confidence and capacity in an effort to reduce persistent physical health disparities among adults with disabilities.

CHAPTER 1

INTRODUCTION

In 2014, the State of Delaware certified the nonprofit organization *Endless Possibilities in the Community* (EPIC) as a provider of inclusive wellness programming funded through Medicaid under the Division of Developmental Disabilities Services (DDDS). To qualify for these services, participants must be DDDS approved adults aged 18 or older with an intellectual disability and/or developmental disability (collectively identified as individuals with IDD) who voluntarily choose to enroll in the program. Each individual's level of support is determined using a state-mandated standardized assessment tool. Based on the score, Medicaid authorizes a specific number of billable service hours, which are detailed in a person's Individualized Service Plan (ISP), a document that outlines their individualized fitness goals, support needs, and service delivery parameters.

EPIC's ability to receive Medicaid reimbursement depends on documented, face-to-face contact with the participant. In other words, service hours are billable only when staff deliver direct, in-person programming. Missed sessions due to illness, cancellations, or no-shows are not reimbursable. Similarly, activities that occur outside of direct service, such as staff professional development training, cannot be billed under Medicaid. In these cases, EPIC, as the provider, bears the full financial responsibility for such activities. This structure aligns with federal guidance under the Home and Community-

Based Services (HCBS) waiver, which limits Medicaid payments to services not directly tied to a participant's ISP. Administrative tasks such as staff training, program development, and indirect service coordination must be funded through other sources (Centers for Medicare & Medicaid Services, 2014).

EPIC currently operates five independent program sites in community fitness facilities (CFF) across New Castle and Kent Counties in Delaware, supporting 145 active members with IDDs who qualify for Medicaid reimbursed services. In contrast, 17 adults with physical disabilities who do not meet the eligibility criteria for DDDS services participate in EPIC's *Abilities* fitness program, which is delivered at the inclusive Bear-Glasgow YMCA, for a total of 162 members (See Table 1).

Table 1.
Numbers of EPIC active members and fitness staff by program location

Program Location	**Active Members**	**Fitness Staff**
Bear-Glasgow YMCA	38	10
Brandywine YMCA	25	4
Dover YMCA	35	4
Hockessin Athletic Club	15	3
Western YMCA	32	6
Bear-Glasgow "Abilities"	17	3
Totals	**162**	**30**

While DDDS services for certified program members are fully supported by Medicaid reimbursements, the Abilities program operates outside of this structure and relies on diversified, non-Medicaid funding sources. These include strategic partnerships with state agencies, health maintenance organizations (HMOs), philanthropic foundations, and individual donors. For instance, the Division of Services for Aging and

Adults with Physical Disabilities (DSAAPD) and Highmark, an HMO partner, have contributed short-term grant funding to sustain Abilities programming.

EPIC's fitness team is composed of 30 part-time staff members, including certified personal trainers and fitness staff, under the leadership of a full-time Executive Director. Staff backgrounds vary in terms of education, professional certification, and years of experience. Some have college degrees in health-related or other fields, along with fitness credentials and prior experience supporting adults with disabilities. Others, however, entered their roles without formal education, professional fitness certifications, or disability-specific training or experience. Compensation is based on qualifications, job role, and hours worked. While EPIC offers competitive wages, organizational opportunities for professional development training are limited due to budget constraints.

Some participants, particularly those with complex physical disabilities, receive support from Physical Therapy Assistants (PTAs). These three staff members work primarily in the Abilities program and with select DDDS funded members who require specialized mobility assistance. In line with state licensing regulations, PTAs deliver fitness-related services (not clinical physical therapy treatment) and are paid at an enhanced hourly rate. PTA expertise is gained through formal education, and ongoing professional development training helps ensure safe transfers in and out of adaptive equipment and supports individuals with orthopedic or physical limitations (Federation of State Boards of Physical Therapy, 2021).

The use of PTAs promotes safety, accessibility, and dignity, creating more equitable fitness opportunities for adults with significant mobility challenges. Removing barriers related to staffing, equipment use, and safety supports better health outcomes for

individuals who often lack access to appropriate wellness services (Rimmer, Lai, & Young, 2016). However, a significant regulatory gap exists across the fitness industry. In Delaware and nationally, there is no requirement for fitness professionals to be certified, licensed, or formally trained to work with individuals with disabilities. In the absence of standardized credentialing and mandated training requirements, fitness facilities often prioritize cost-saving over hiring qualified personnel, which may compromise participant engagement, safety, and well-being (Melton, Dail, Katula, & Mustian, 2008).

The absence of standardized requirements for training of community fitness staff is concerning in the context of public health data. The Plan to Achieve Health Equity for Delawareans with Disabilities highlights stark disparities between adults with and without disabilities (Sparling et al., 2015). For example:

- Only 59.7% of adults with disabilities reported any physical activity (PA) in the past month, compared to 80.6% of adults without disabilities, highlighting a substantial gap in PA participation.
- 20.4% of adults with disabilities had diabetes, compared to 7% of adults without disabilities.
- Over 74% of adults with disabilities were overweight or obese, versus 64.5% of adults without disabilities, suggesting additional challenges in maintaining a healthy weight.
- Depression affected 33.8% of adults with disabilities, more than three times the 10.1% rate among their non-disabled peers, indicating a need for more targeted mental health resources and interventions.

National surveillance data from the CDC's Behavioral Risk Factor Surveillance System (BRFSS), a cross-sectional survey that monitors health behaviors and outcomes among U.S. adults, reveal consistent inequities in physical activity, weight status, chronic disease, and mental health. Findings show that (Carroll et al., 2014):

- Only 44% of adults with disabilities who were able to be physically active reported doing so, compared with 54% of adults without disabilities.

- 47% of adults with disabilities were physically inactive, compared with 26% of adults without disabilities.
- 38% of adults with disabilities were classified as obese, compared with 24% of adults without disabilities.
- Inactive adults with disabilities were 50% more likely to report at least one chronic disease (stroke, diabetes, cancer, or heart disease) than those who were active.

Together, these state and national findings highlight persistent and alarming disparities in physical activity participation, chronic disease prevalence, and overall health status for individuals with disabilities.

Research by Bodde and Seo (2009) identifies a wide range of barriers, including environmental, attitudinal, physical, and personal barriers, that often go unaddressed in community fitness settings (See Table 2).

Table 2.
Barriers to physical activity for individuals with disabilities

ENVIRONMENTAL BARRIERS	**ATTITUDINAL BARRIERS**	**LACK OF KNOWLEDGE AND SUPPORT**	**PHYSICAL BARRIERS**	**PERSONAL BARRIERS**
Inaccessibility of Facilities Inaccessible facilities, equipment, or transportation	**Negative Perceptions** Stigma or negative perceptions of disability	**Inadequate Training** Lack of staff training in inclusive fitness	**Health Conditions** Pain, fatigue, chronic conditions	Lack of Motivation Fear of injury, isolation

A key to address these barriers is sustained systematic professional development training focused on disability awareness and inclusive fitness instruction. Such training is critical for staff to gain the knowledge necessary to deliver individualized, accessible programming (Desimone, 2009; Obrusnikova et al., 2023; Rimmer & Vanderbom, 2016).

Without these supports, service quality may decline, leading to participant disengagement, limited program impact, and continued health disparities.

This ELP addressed these challenges by targeting the following problem: EPIC lacked a sustainable professional development model and supporting infrastructure to equip fitness staff with the knowledge needed to support adults with disabilities in inclusive physical activity. The study drew on research to identify existing gaps in staff training and proposed practical, evidence-informed strategies to enhance staff knowledge and sustain professional development within the organizational infrastructure. The long term goal is to contribute to improved health outcomes for adults with disabilities in CFFs.

CHAPTER 2

PROBLEM ADDRESSED

Adults with disabilities face distinct challenges when engaging in physical activity (PA), encountering barriers not typically experienced by individuals without disabilities. These barriers may be environmental (e.g., lack of accessible facilities), attitudinal (e.g., low expectations from staff), informational (e.g., lack of clear guidance), personal, social, or programmatic in nature, all of which can limit access to inclusive active movement opportunities (Bodde & Seo, 2009). As a result, individuals with disabilities are often excluded from the physical, emotional, and social benefits associated with regular PA (Rimmer, Chen, McCubbin, Drum, & Peterson, 2010).

One of the most persistent obstacles to inclusion is the shortage of personal trainers and fitness staff who possess the disability-specific knowledge, instructional strategies, and confidence needed to effectively support adults with disabilities in CFFs (Moran & Block, 2010; Obrusnikova et al., 2023). This workforce gap contributes to persistent health inequities by limiting access to programs that promote physical and mental well-being. These challenges are compounded by the absence of formal educational requirements and the limited availability of structured professional development training opportunities specific to disability-inclusive practice. Even when CFFs are physically accessible, they are often underutilized by individuals with disabilities due to a lack of trained, knowledgeable staff (Richardson, 2017).

Similarly, many physical education (PE) teachers are also not adequately trained to effectively support students with disabilities in school settings (Ammah & Hodge, 2005; LaMaster, Kinchin, Gall, & Siedentop, 1998). In Delaware, as in many other states, PE teacher certification does not require coursework in adapted physical education (APE), which further limits educators' preparedness (Delaware Administrative Code Regulation 1564, 2022). As a result, students with disabilities often miss critical opportunities for physical development, social inclusion, and skill acquisition (Blinde & McCallister, 1998; Goodwin & Watkinson, 2000). Against this backdrop, EPIC confronted the same challenge: the absence of structured professional development training and the organizational infrastructure needed to sustain it within community fitness contexts.

EPIC context and leadership response

Within EPIC this lack of structured professional development training presented a significant barrier to program safety, quality, and participant engagement. As the organization's co-founder and former volunteer Executive Director from 2014 to 2019, I led early efforts to address this challenge, despite significant resource constraints. At the time, EPIC lacked the financial capacity to employ full- or part-time staff, limiting its ability to offer formal professional development training. Instead, early programming relied heavily on student interns from the University of Delaware's Department of Health Behavior and Nutrition Sciences most of whom had minimal exposure to disability-focused coursework. To address this gap, I facilitated professional development training focused on disability awareness embedded within fitness content, drawing on principles

of direct instruction (Engelmann, Becker, Carnine, & Gersten, 1988). Through structured modeling, coaching and guided application, students increased their baseline instructional knowledge and reported improved confidence when working with adult program participants with disabilities.

Despite the challenges posed by the COVID-19 pandemic, EPIC remained operational and continued to deliver inclusive physical activity services thanks largely to the preparedness of its student workforce. However, as the organization expanded and transitioned to a paid part-time staffing model, the limitations of relying on informal training approaches became increasingly evident. A formalized professional development training system was necessary to deepen staff knowledge, increase confidence and ensure consistent program quality across multiple program sites.

In response to my advocacy, EPIC's Board of Directors recognized these challenges and formally identified the need for structured professional development training as a strategic priority in 2021. They approved the following organizational goal (Hancharick, 2021, p. 3).

> Developing sustained professional development training and practices within written policy and procedural guidelines to increase personal trainers' (PTs) and exercise specialists' knowledge, competency, capacity, and self-efficacy, enabling them to enhance physical activity, health, nutrition education, and social skills outcomes for program participants with disabilities.

Identification and application of a professional development model and framework

As the designated lead for this initiative, I selected EPIC's strategic professional development (PD) training goal as the focus of my Educational Leadership Portfolio (ELP). With board approval and funding to complete the study, I developed a logic model

to map the theory of change, outlining how inputs, activities, outputs, and outcomes would lead to improved staff training, member outcomes and organizational growth.

A short-term objective was to identify an evidence-based PD model and framework that could be feasibly implemented and evaluated within EPIC's inclusive CFFs. To accomplish this objective, I conducted a comprehensive literature review, also collaborating with faculty researchers at the University of Delaware. This scoping review focused on PD models addressing three critical areas: disability awareness, inclusive instruction, and staff self-efficacy (Obrusnikova et al., 2023). The search yielded 2,086 titles, with more than 1,600 peer-reviewed studies screened for relevance. However, only two studies, Marks, Sisirak, and Chang (2013) and McNamara, Bittner, and Healy (2021), specifically addressed PD training within CFF contexts. Both studies lacked a structured intervention design and did not evaluate long-term outcomes, such as how knowledge, confidence, and organizational supports interact in professional learning.

Although an evidence-based PD training intervention was not identified, the systematic literature review identified the Empowerment Model (Moran, Gibbs, & Mernin, 2017) and Moran, Taliaferro, and Pate (2014) and its accompanying Strategies of Success (SOS) instructional framework as representing elements of good practice, which might be suitable for implementation at EPIC. From the literature, I further examined the foundational theories of social cognitive learning (Bandura, 1986), self-efficacy (Bandura, 1977, 1997), and empowerment (Zimmerman, 1995, 2000; Sadan, 1997), which had collectively informed the design and application of the model.

Theoretical foundations: Empowerment and self-efficacy

Bandura (1986) suggests that learning occurs within a dynamic social context shaped by the interaction of personal factors (such as beliefs, attitudes, and prior experiences), behavioral factors (actions, performance, and skill use), and environmental factors (resources, policies, and social supports). For fitness staff, this means that effective professional development cannot occur in isolation—it must intentionally combine opportunities for observation, modeling, practice, and feedback within supportive organizational structures.

Self-efficacy (Bandura, 1977, 1997) refers to an individual's belief in their ability to carry out a task successfully. Bandura emphasized that confidence develops through four key sources: mastery experiences (successfully practicing and applying skills), vicarious experiences (observing others model effective strategies), social persuasion (receiving encouragement and constructive feedback), and the regulation of emotional and physiological states (managing anxiety, stress, or physical strain during performance). In the context of inclusive fitness, self-efficacy theory suggests that staff who experience structured training, observe peers using inclusive strategies, and receive consistent feedback will be more motivated and persistent in adapting their instruction for adults with disabilities.

Empowerment theory (Perkins & Zimmerman, 1995; Sadan, 1997; Zimmerman, 1995, 2000) extends this individual confidence to the organizational and community levels, emphasizing that capacity building requires not only skill development but also structures that promote autonomy, critical reflection, and shared decision-making. Empowerment involves enabling individuals to influence their environment, contribute to organizational improvement, and engage in reflective practices that sustain long-term

growth. Within community fitness facilities, empowerment theory highlights the importance of creating professional development systems that provide staff with both the tools to support participants and the authority and infrastructure to act confidently and consistently.

Together, these theories emphasize the interdependence of foundational knowledge, the confidence to apply that knowledge effectively, and the organizational infrastructure required to sustain inclusive practice. Empowerment theory provides the framework for autonomy and critical reflection, while self-efficacy theory explains how confidence is built and maintained in practice. Social cognitive theory integrates these perspectives by showing that staff learning occurs within an interactive system of personal, behavioral, and environmental influences. Collectively, these perspectives bolster the argument that professional development for inclusive fitness must go beyond knowledge transfer to intentionally build confidence and establish sustainable organizational infrastructure.

Empowerment model operational framework

Figure 1. Empowerment model operational framework

In practice, the Empowerment Model includes three interconnected components: programming, training, and support (See Figure 1). Programming emphasizes flexible, inclusive service delivery in settings like EPIC's. Training consists of four online Strategy of Success (SOS) instructional modules: Addressing Challenging Behaviors, Accessibility Considerations, Planning Inclusive Programs, and Modifying Instruction for Inclusiveness. Each module contains pre-tests, mini-lessons, interactive content, and post-assessments. The support component acknowledges that fitness staff may require different types of assistance as they apply what they have learned. Support may be direct (e.g., coaching during sessions) or indirect (e.g., peer observation and feedback). As represented in Figure 2, the Empowerment Model's instructional framework, together with Bandura's sources of self-efficacy, aims to build both knowledge and confidence, key components of professional competence supporting adults with disabilities in inclusive CFFs.

Figure 2. *Bandura's sources of self-efficacy theory embedded within the Empowerment Model.*

Supporting structures

The professional development literature highlights the importance of supportive organizational structures to sustain effective professional development, including clear policies, procedural frameworks, and resource tools that ensure alignment with broader organizational goals (Desimone, 2009; Eaker & Marzano, 2020; Hipp & Huffman, 2010). To address the problem identified at EPIC, namely, the absence of a sustainable professional development system and supporting infrastructure, these components are necessary to reinforce the application of the Empowerment Model. These proposed organizational supports should establish consistent expectations, standardized onboarding, and readily accessible instructional tools intended to help staff translate training into practice. Positioning the Empowerment Model within EPIC will align with the organization's mission to deliver high-quality, inclusive wellness programming and will highlight a potential strategy for building workforce capacity, advancing health equity, and ensuring that adults with disabilities can fully access the physical, emotional, and social benefits of community-based physical activity.

In summary, the Empowerment Model—supported by the SOS instructional modules and reinforced through draft policies, guidelines, and a staff resource manual—was identified in the literature as a framework capable of addressing EPIC's lack of sustainable professional development and infrastructure. This ELP's short-term nature meant that the study primarily emphasized the impact of the SOS modules on staff knowledge. Staff's self-assessments of self-efficacy were embedded in the SOS

instructional framework. However, opportunities to systematically observe staff's practices over time and note how those practices might contribute to the mastery experiences that are central to enhancing self-efficacy were not available. Thus, although the SOS modules provide some vicarious experiences, which might contribute to a sense of self-efficacy, caution must be used when interpreting the results of the embedded self-efficacy assessments in this study. Focus groups were held to gain more insight into staff's perceptions of the impact of the SOS modules and to inform development of draft policies, guidelines, and a staff resource manual. All strategies used within this ELP are outlined in Chapter 3, Improvement Strategies.

CHAPTER 3

IMPROVEMENT STRATEGIES

EPIC's mission, as stated in its Articles of Incorporation is "Supporting the health and well-being of individuals with disabilities through meaningful, self-determined, and inclusive fitness and social skills activities, fostering more active and productive lifestyles" (Endless Possibilities in the Community (EPIC), 2014). Prior to implementing this study, I sought Institutional Review Board (IRB) approval who deemed this project exempt. (See Appendix A).

To equip EPIC's fitness staff with the knowledge to more effectively support adults with disabilities in inclusive CFF settings and move toward a sustainable, scalable model of professional development, I identified multiple improvement strategies. These strategies are shown in Table 3, followed by brief descriptions of how they were developed, implemented and evaluated.

Table 3.
List of artifacts

List of Artifacts	
1	Logic Model
2	Literature Review
3	Demographic Survey
4	Strategies of Success Instructional (SOS) Modules: Implementation and Knowledge Assessment
5	Self-efficacy Assessments
6	Focus Group's Protocol and Feedback

7	Draft Professional Development Policy and Procedure Guidelines
8	Draft Staff Professional Development Training Resource Manual

Artifact 1: Logic model

Working from EPIC's strategic goal to implement systematic professional development training for fitness staff, I developed a logic model as a tool to clearly depict the connections between inputs, key activities, expected outputs, and intended outcomes (See Appendix B). The model clarified how professional development could be designed and evaluated in relation to organizational objectives. It also underscored the importance of a professional development policy, supporting procedural guidelines, and a staff resource manual in building organizational knowledge and infrastructure. By making these relationships visible, the logic model enables staff to see how their knowledge gains translate into greater confidence through the practical application of instructional content and improved member health outcomes.

Artifact 2: Literature review

In collaboration with a multidisciplinary study team at the University of Delaware, I assisted with a systematic review of more than 1,600 peer-reviewed journal articles addressing both formal and informal training interventions (Obrusnikova et al., 2023). The aim was to determine how established theories could inform the identification of a scalable and sustainable professional development training model for CFFs. The review concentrated on practitioner groups most relevant to EPIC's mission—those working directly with adults with disabilities in community fitness contexts. This

included coaches, wellness instructors, personal trainers, health and physical educators, and direct service providers.

Although an evidence-based professional development training intervention was not identified, the literature review yielded valuable insight into the theories behind the Empowerment Model and its accompanying Strategies for Success instructional framework, which was noted as an example of a "good-practice" professional development training model. For purposes of this ELP, I created a summary of the literature review that highlighted its relevance and application to EPIC's mission and organization (See Appendix C).

Artifact 3: Demographic survey

Building on this organizational perspective, the next step was to gather workforce-level insights through a demographic survey, ensuring that the assessment reflected the specific knowledge, backgrounds, and experiences of EPIC's study participants. I developed a demographic survey on Qualtrics to collect baseline information that included age, gender, education level, profession, and relevant experience with disabilities or fitness (See Appendix D). This information would provide essential context for understanding the study group and offer insights into the formal and informal training and work experiences that shaped EPIC's workforce and learning outcomes from disability awareness and fitness-related instructional content (See Appendix D.1).

Artifact 4: Strategies of success (SOS) instructional modules: Implementation and knowledge assessment

The Empowerment Model and accompanying professional development training framework (Moran et al., 2014) consists of four online *Strategies of Success* (SOS) instructional modules focused on disability awareness and fitness-related content designed to strengthen the instructional competence of fitness professionals working in CFFs. The SOS modules were developed to address persistent gaps in disability-specific knowledge, instructional strategies and inclusive practices among fitness staff—gaps that have been well documented in the literature (Moran et al., 2014; Obrusnikova et al., 2023). Each module targets a specific area of professional knowledge essential for delivering effective and inclusive fitness experiences in CFFs (See Table 4).

Table 4.
Empowerment Module's Strategies of Success (SOS) instructional module titles and content

SOS Instructional Module Titles and Instructional Content	
Addressing Challenging Behaviors	Strategies to manage behaviors of individuals with disabilities in inclusive fitness settings
Accessibility Considerations	Knowledge of how to adapt fitness equipment and environments to meet the needs of individuals with disabilities
Planning Inclusive Programs	Skills to modify and design programs that support full participation of individuals with diverse abilities
Modifying Instruction for Inclusiveness	Ability to adjust instructional strategies and delivery to accommodate a variety of needs and learning styles

Following IRB protocol, the four-week study invited EPIC staff to participate. Each participant was assigned a unique electronic identification number to ensure confidentiality. Participants independently completed four self-paced online professional development modules outside of work hours.

Each SOS instructional module contained mini-lessons with embedded activities and a concluding case study or practical scenario (See Appendix E). In addition, every module included a pre- and post-test of knowledge. To earn a certificate of completion, participants were required to achieve a minimum score of 80% on the post-test (see Appendix E-1), although meeting this proficiency standard was not a condition of the study protocol. Participants were allowed to take the module post-test more than once if they wished. Strengthening this knowledge base was intended to equip EPIC's fitness staff with the capacity to deliver more effective and inclusive fitness programming for adults with disabilities in CFFs.

Artifact 5: Self-efficacy assessments

A secondary aim was to assess whether staff gained confidence in applying inclusive instructional strategies. To this end, the SOS modules incorporated the Physical Educators' Self-Efficacy Toward Including Students with Disabilities—Autism (PESEISD-A) assessment scale and administered it before participants began the instructional modules and again after they had completed all modules. Participants rated their confidence on 10 items using a scale of 0 (low) to 10 (high).

According to Obrusnikova (personal communication), PESEISD-A sits within a broader line of inclusive physical education self-efficacy work. For example, Hutzler et

al. (2005) used the SEIPE instrument to assess self-efficacy under inclusive conditions. In parallel, Block et al. (2013) created the SE-PETE-D for PETE majors—three disability-specific scales (intellectual, physical, visual impairment) using a 1–5 confidence scale with factor solutions such as peers' instruction, adaptations, safety, and staying on task. The autism-specific PESEISD-A (10 items) originated with Taliaferro (2010) and uses an 11-point (0–10) response format; subsequent studies support a unidimensional structure with strong internal consistency and test–retest reliability. In the present study, staff self-efficacy was assessed using a 10-item, unidimensional scale adapted from the PESEISD-A for community fitness tasks; items were rated on a 0–10 scale and averaged to yield one total score, with higher values indicating greater self-efficacy. Cross-cultural work (e.g., Selickaitė, Block, & Skurvydas , 2018) confirms the one-factor structure and high reliability of the 10-item self-efficacy scale, and in some studies separate companion subscales (sources of efficacy, behavior, perceived challenges) are administered alongside it—these are not subdimensions of the PESEISD-A scale itself.

Despite its strengths, the PESEISD-A is a self-report measure and therefore reflects subjective perceptions that may be influenced by social desirability, inaccurate self-assessment, or limited self-awareness. In addition, the PESEISD-A is a unidimensional scale of overall confidence; its items are not designed to index Bandura's four sources of self-efficacy (mastery experiences, vicarious learning, social persuasion, and emotional/physiological states). Consequently, the measure can indicate whether staff feel more confident, but not why or through which mechanisms that confidence changed. Moreover, this study used a version of the PESEISD-A adapted for community fitness tasks. As with any adapted wording, further validation (e.g., expert content

review, test–retest reliability, and model fit) is warranted to ensure equivalence with the original instrument.

Finally, it is important to acknowledge that my dual role as principal investigator (PI) and co-founder of EPIC may also have influenced this artifact. My leadership position provided unique insights into staff needs and the organizational context but could also introduce bias in the design, administration, or interpretation of the PESEISD-A results. This positionality is noted to ensure transparency regarding how staff self-efficacy was assessed within EPIC's professional development framework.

Artifact 6: Focus groups

To complement quantitative pre- and post-survey results, focus groups were incorporated into the study design as a qualitative artifact (see Appendix G). This method provided in-depth feedback and insights into participants' perceptions of knowledge gained from the SOS modules and their confidence in applying what they had learned. These discussions created space for staff to reflect on how SOS training content deepened their knowledge of inclusive practices and, secondarily, how it shaped their confidence in applying strategies with participants.

The focus groups were structured and organized while remaining open to dialogue about the design of the professional development training modules, their impact on knowledge and confidence, and suggestions for improving operational protocols (See Appendix G.1). Transcripts were coded using a thematic analysis approach. An initial round of open coding captured meaningful ideas, followed by categorization into broader concepts. Themes were identified both deductively, guided by the SOS module content

areas, and inductively, based on participant input. Focus group feedback also provided critical insights into the organization's role and responsibilities in professional development training. These findings directly informed the creation of EPIC's draft professional development training policy and procedural guidelines, which were subsequently integrated into a comprehensive staff professional development training resource manual.

Artifact 7: Draft professional development policy and procedural guidelines

The Draft Professional Development Policy (See Appendix H) was created to formalize EPIC's commitment to structured and sustainable staff learning. The policy establishes clear expectations for participation, including onboarding requirements, engagement with training modules, and periodic evaluations. By embedding these expectations into written policy, EPIC positioned the development of knowledge, confidence, and competence in inclusive practices as a central organizational priority. In addition, the policy aims to reinforce accountability by outlining procedures for monitoring participation and providing feedback, ensuring that professional development is not simply encouraged but embedded into staff responsibilities. At the same time, the policy reflects EPIC's broader strategic goal of cultivating a workforce that is knowledgeable, confident, and consistent across all community fitness facilities (CFFs), thereby aligning professional development with organizational culture and long-term sustainability.

The Procedural Guidelines (See Appendix I) were designed to operationalize the commitments outlined in the policy by providing a step-by-step framework for

implementation. These guidelines establish standardized processes for staff onboarding, completion of SOS instructional modules, and participation in ongoing professional development cycles. Clear procedures ensure consistency across multiple CFF sites, reducing variability in training delivery and expectations. The guidelines also include timelines, checklists, and accountability measures so that staff and supervisors have a transparent roadmap for fulfilling training requirements. By codifying these processes, EPIC strengthens its professional development infrastructure, ensuring that training is practical, repeatable, and sustainable across the organization.

Artifact 8: Draft staff professional development training resource manual

The Staff Professional Development Training Resource Manual (See Appendix J) will serve as a comprehensive and practical reference tool for staff. It consolidates key information from the SOS instructional modules and other research-informed resources, offering actionable strategies, templates, and tools that staff can use in their daily practice. The manual is designed not only as a "how-to" guide for program delivery but also as a living document that can be updated as new knowledge, practices, and resources emerge. By incorporating diverse disability etiologies, condition-specific guidance, and additional training topics presented through multiple instructional formats, the manual provides staff with accessible, evidence-based supports that strengthen both competence and confidence. Furthermore, the manual creates opportunities for professional learning communities (PLCs) by giving staff a shared foundation of knowledge and resources to guide collaboration, reflection, and peer-to-peer learning.

By embedding policy, guidelines, and resource manual into EPIC's professional development infrastructure, the organization aims to establish a framework that is sustainable, scalable, and responsive to staff and member needs. This infrastructure ensures that knowledge-building and confidence development are reinforced not through one-time training events but through an ongoing cycle of learning, practice, and reflection. Together, these components form the backbone of a professional development system that strengthens staff knowledge, confidence and organizational capacity to deliver high-quality, inclusive fitness programming and advances EPIC's mission to address health disparities and promote equity in community fitness facilities.

CHAPTER 4

RESULTS OF IMPROVEMENT STRATEGIES

Logic model

At the beginning of this study, a logic model was developed to map out the components and intended outcomes needed to fulfill the EPIC Board's strategic goal of strengthening professional development training for fitness staff. The model outlined the required inputs, outputs, and desired short- and long-term outcomes to increase staff knowledge and confidence in supporting adults with disabilities in CFFs and establish the infrastructure necessary to sustain these practices over time.

As the study progressed, feedback from organizational stakeholders, findings from the literature review, insights from focus groups, and early implementation experiences led to several refinements of the original design. Revisions clarified distinctions between short- and intermediate-term outcomes, incorporated mechanisms to monitor long-term impact through follow-up evaluations, and improved clarity and consistency of language across components.

The updated logic model now represents a comprehensive framework that captures EPIC's professional development theory of change. It serves as a strategic guide for evaluating current training and planning future enhancements to ensure that knowledge,

confidence, and sustainability remain embedded in EPIC's professional development system (See Appendix B).

Literature review

As explained in Chapter 2, Problem Addressed and Chapter 3, Improvement Strategies, a synthesis of the literature (Obrusnikova et al., 2023) revealed the absence of an evidence-based professional development training program or instructional framework specifically designed to prepare community fitness staff, such as EPIC's, to effectively support adults with disabilities in inclusive CFFs. This process underscored the urgent need to identify, implement, and assess professional development training that enhances staff knowledge and confidence while also building the organizational infrastructure required to sustain these practices over time.

Through the literature review, the Empowerment Model (Moran et al., 2014; Moran et al., 2017) was identified as a possible foundation for EPIC's professional development framework. The model utilizes a multi-component system of programming, training, and support, with outcomes aimed at equipping fitness staff with the capacity to foster successful participation for adults with disabilities in physical activity. Equally important, the model emphasized sustainability by embedding professional development into ongoing systems of support. For EPIC, this translated into the early conceptualization of draft policies, procedural guidelines, and a comprehensive staff resource manual—structural tools intended to ensure that training practices remain consistent, replicable, and aligned with long-term organizational goals.

Demographic survey

The Demographic Survey, which I developed using Qualtrics as part of the study's improvement strategies, gathered quantitative data prior to the participants' engagement with the Empowerment Model's Strategies of Success instructional modules. The survey results captured key participant characteristics, including age, gender, educational background, and professional experience. Complete results are shown in Appendix D.1.

Age and Gender

The participant group (N=15) in the EPIC training study included 80% females and a diverse age demographic with a fairly even distribution across all age categories. Approximately 46.7% of participants were under the age of 35, reflecting a blend of early career and mid-career professionals.

Educational and Professional Background

The survey results highlighted significant gaps in formal academic preparation related to disability and fitness. Forty percent of participants reported no undergraduate coursework in this area, and 86.7% had no graduate-level coursework. While 60% had some academic exposure, this was generally minimal. Furthermore, one third of participants held no formal degrees or certifications relevant to the field. Only a small fraction held specialized credentials, such as Physical Therapy Assistant or personal trainer certification, or degrees in health science or fitness-related areas.

Experience and Training

In terms of hands-on experience, 60% of participants reported less than two years of work in CFFs, indicating that many are still early in their careers within this context. Moreover, 40% of participants reported no prior experience working with individuals with disabilities, and only one individual had experience working with adults, the primary population served by EPIC. The majority of participants who did have disability-related experience worked with children aged 3–12.

Pre and post test knowledge gains within SOS instructional modules

The results presented in Table 5 and Figure 3 summarize the quantitative knowledge gains across the four Strategies of Success (SOS) instructional modules. On average across the four domains, participants demonstrated a 22-point increase on a 100-point scale from pre- to post-assessment. Complete results are shown in Appendix E.1.

Addressing Challenging Behaviors

This module focused on strategies for identifying behavioral triggers, applying proactive interventions, and de-escalating challenging participant behaviors in fitness settings. On average, participants improved 33 points, from a pre-assessment score of 46 (range of 25 to 75) to a post-assessment score of 79 (range of 33 to 100).

Planning Inclusive Programs

Content emphasized methods for designing group and individual fitness activities that accommodate diverse abilities, goals, and participation levels. On average,

participants gained 16 points. Scores increased from 69 (range of 17 to 100) to 85 (range of 67 to 100).

Modifying Instruction for Inclusiveness

This module provided techniques for adapting communication, demonstrations, and feedback to meet the needs of participants with varying physical, cognitive, or sensory abilities. On average, participants showed an increase of 24 points, from 41 (range of 22 to 67) on the pre-test to 65 (range of 28 to 100).

Accessibility Considerations

This module addressed knowledge of facility, equipment, and environmental modifications that promote access and safety for individuals with disabilities. On average, participants gained 16 points, from pre-test of 57 (range of 20 to 100) to post-test of 73 (range of 30 to 100).

Table 5.
Titles of SOS instructional modules and knowledge gains

SOS Instructional Module Title	Knowledge Gains
Addressing Challenging Behaviors	Pre-assessment score: 46 Post-assessment score: 79 Knowledge gain: 33
Planning Inclusive Programs	Pre-assessment score: 69 Post-assessment score: 86 Knowledge gain: 17
Modifying Instruction for Inclusiveness	Pre-assessment score: 41 Post-assessment score: 65 Knowledge gain: 24
Accessibility Considerations	Pre-assessment score: 57 Post-assessment score: 73 Knowledge gain: 16

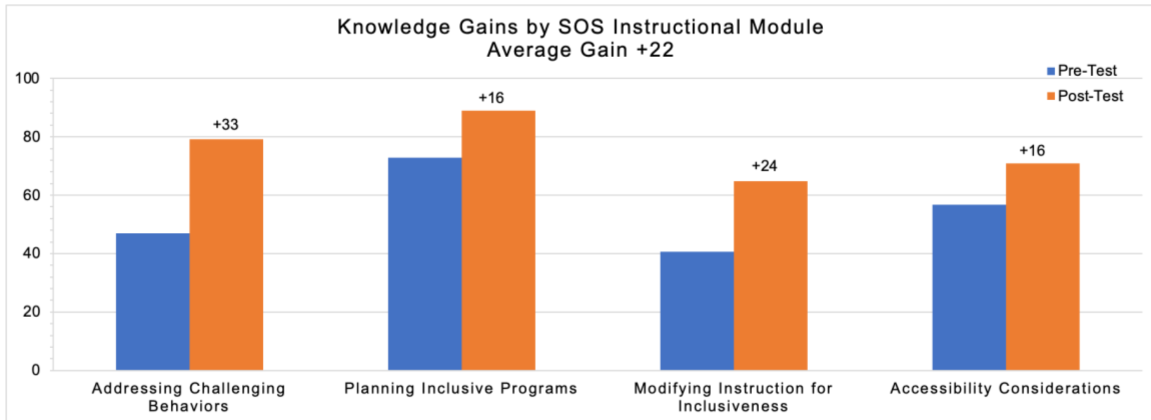

Figure 3. Gains across SOS instructional modules on a scale from 0 to 100

Summative assessments were completed at the conclusion of each module, with results displayed as both the number of points and the percentage of correct responses. For each item, correct answers prompted feedback such as *"Correct—nice job, you got it right!"* Incorrect responses triggered prompts such as *"Incorrect—give it another try"* and the correct answer was shown. If a participant chose to re-start the quiz, questions were re-organized. Participants were given the option to re-take the full test multiple times, with the highest score used to calculate gains. The average number of post-assessment attempts per participant was as follows:

Addressing Challenging Behaviors	1.57 attempts (range of 1 to 4)
Planning Inclusive Programs	1.68 attempts (range of 1 to 3)
Modifying Instruction for Inclusiveness	1.87 attempts (range of 1 to 7)
Accessibility Considerations	1.80 attempts (range of 1 to 2)

Despite multiple opportunities to retake post assessments for each of the SOS modules only 60% of participants achieved the mastery level of 80% required to earn a certificate.

Empowerment model pre post self-efficacy assessment scores

Before beginning the SOS modules and after completing all modules, participants completed the Physical Educators' Self-Efficacy Toward Including Students with Disabilities–Autism (PESEISD-A), assessment. The assessment was meant to measure participants' confidence in their ability to effectively include individuals with disabilities in community fitness programming across 10 tasks. On average, participants showed an overall improvement of 0.5 points on a scale of 0 to 10 points. The average pre-test score was 8.6 (range of 4.0 to 10) and average post-test score was 9.1 (range of 8.3 to 10). On average, participants had the highest average confidence gains (+1.0) on the Modify Activities and *Collaborate Effectively with Other Professionals* items. On one item, *Motivate Individuals, participants* reported a decrease of 0.2 points on average. Results are shown in Appendix F.1. Table 6 and Figure 4 show the confidence gains on each item in two formats.

Table 6.
Pre and post test self-efficacy scores by item

Pre and Post Self-Efficacy Scores by Item		
Modify Equipment	Pre test score	8.2
	Post test score	8.9
	Confidence gain	0.7
Modify Activities	Pre test score	8.3
	Post test score	9.3
	Confidence gain	1.0
Create a Safe Environment	Pre test score	9.0
	Post test score	9.5
	Confidence gain	0.5
Promote Social Interactions with Peers	Pre test score	8.9
	Post test score	9.2
	Confidence gain	0.3
Manage Behaviors	Pre test score	7.9
	Post test score	8.1
	Confidence gain	0.2
Modify Instructions	Pre test score	8.7
	Post test score	9.3
	Confidence gain	0.6
Access Motor Skills	Pre test score	8.1
	Post test score	8.9
	Confidence gain	0.8
Modify Rules to Games	Pre test score	8.9
	Post test score	9.4
	Confidence gain	0.5
Collaborate Effectively with Other Professionals	Pre test score	8.6
	Post test score	9.6
	Confidence gain	1.0
Motivate Individuals	Pre test score	9.5
	Post test score	9.3
	Confidence gain	-0.2
Average Score Across Items	Pre test score	8.6
	Post test score	9.1
	Confidence gain	0.5

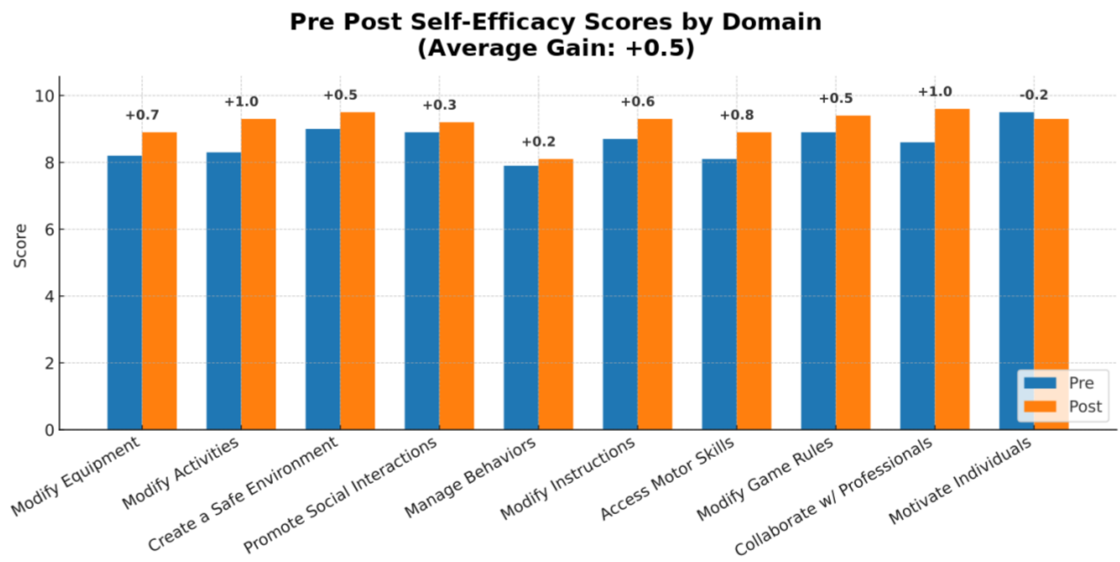

Figure 4. Bar graph representation of pre / post across self-efficacy scores by item

Focus group feedback

Each of the three focus groups included five participants and lasted 45 to 60 minutes. All participants contributed to the conversations. The results provided valuable insights into the effectiveness of the training in terms of knowledge acquisition, confidence, and areas for further improvement. Participants agreed that the four SOS instructional modules could effectively provide new staff with foundational knowledge through fitness-related content that supports adults with disabilities in CFFs. Additionally, many suggested that these modules should be considered for access by experienced fitness staff as well, as they would benefit from the refresher and expanded content.

Participants reported an increase in their knowledge and understanding of disability and its impact on PA. The focus group discussions also confirmed that the professional development training modules were effective in raising awareness and

building confidence among fitness staff in their ability to adjust the social and physical environments in support of individuals with disabilities in CFFs. Participants stated that this knowledge would better equip them to adapt programming to meet the diverse needs of individuals with disabilities they support. They also emphasized the importance of "inspirational training," with one participant asking, *"How can I motivate members to become more inspired while working out?"* Such training, they believed, would foster a culture of high expectations and motivation within fitness programs.

Many participants appreciated the practical tools and strategies provided, noting that they could immediately apply learnings from the modules. The case studies, in particular, allowed them to see how the concepts could be directly applied to their current practice. One participant stated, "I feel more confident planning and implementing inclusive fitness programs that ensure everyone can participate." Another said, "I feel more confident responding to challenging behaviors, using strategies to de-escalate situations." The real-life learning scenarios included in the training were particularly helpful. "I was able to relate them to my own clients and adjust the exercises accordingly," said one staff member. Despite the positive feedback, staff also identified challenges in fully implementing the knowledge gained from the training. The primary barrier mentioned was a lack of time and resources to adapt fitness programs on a large scale. As one staff member put it, "While I now feel more knowledgeable, the biggest challenge is finding the time during my work sessions to make these changes, especially with larger groups."

Another key result was that staff expressed a strong desire for training opportunities that would increase their knowledge about disability-specific etiologies.

They suggested that this information would enable them to better anticipate participant needs, apply inclusive strategies, and ensure safety. Participants also expressed a strong desire for additional learning opportunities related to disability and fitness with continued support. Many suggested follow-up workshops and access to additional resources and support to help them continue developing their knowledge and confidence As one staff member put it, “It would be great to have a community of practice where we can share experiences and discuss solutions to challenges that come up in our fitness workout sessions.”

Development of EPIC’s professional development training policy and procedural guidelines

To inform the development of EPIC’s Professional Development Training Policy and Procedural Guidelines, I searched for information from leading fitness organizations, disability service providers, and public health agencies. I found very limited resources specific to professional development policies or procedural guidelines organized within a fitness staff resource manual. Key references included resources from Special Olympics Unified Fitness, the National Center on Health, Physical Activity and Disability (NCHPAD), the American College of Sports Medicine (ACSM), IDEA Health & Fitness Association, and the YMCA of Delaware. Findings from this review, study participant input gathered from focus group feedback, and literature resulted in a draft Professional Development Training Policy and Procedure Guidelines aligned with EPIC’s mission.
A central theme that emerged from the organizational information, focus group feedback and literature was the need for a clear, structured framework guiding ongoing staff

development to ensure consistency across service locations. Focus group participants consistently emphasized the importance of institutional support in sustaining meaningful professional development that included:

- Ongoing and scheduled training opportunities (e.g., quarterly, annual, and on-demand)
- Built-in training time during work hours
- Post-certifications within training modules
- Financial support and reimbursement for external learning
- Flexible, remote-accessible formats
- Clear progression pathways for staff at all experience levels
- Training's connection to career growth and recognition

Development of EPIC's professional development staff resource manual

Another key result was the development of the EPIC Professional Development Staff Resource Manual, which integrated research evidence, staff input, and leadership experience. Drawing on my background as a school principal and as EPIC's volunteer executive director, I translated complex research into practical staff guides that addressed identified training gaps. With few comparable manuals in community fitness, I relied on professional organizational resources, disability research, and staff focus groups. Participants emphasized the need for clear safety protocols, condition-specific adaptations, and step-by-step planning tools, all of which directly shaped the manual's content.

The resulting manual provides guidance on safety considerations, individualized planning strategies, key health and wellness concepts, and condition-specific approaches (i.e., for mobility, intellectual and developmental disabilities, sensory impairments, chronic conditions, and mental health). The manual also provides information for professional development reimbursement, accessibility, and building inclusive

environments. By combining organizational insights, research evidence, focus group feedback, and leadership experience, the manual offers EPIC staff a practical, evidence-informed framework for inclusive fitness.

Focus group participants strongly endorsed the idea of developing a professional development training staff resource manual, recognizing it as a vital tool for sustaining high-quality, inclusive fitness programming. Participants thought the manual could become a central, easily accessible resource that would bridge the gap between training sessions and daily practice. Including instructional content was viewed as essential for reinforcing disability awareness, enhancing staff confidence, and ensuring consistent organizational practices.

CHAPTER 5

REFLECTIONS ON THE RESULTS OF IMPROVEMENT EFFORTS

Reflections on the results of improvement strategies implemented through this study further illuminated the central goal of the Educational Leadership Portfolio (ELP): to increase fitness staff's knowledge through structured professional development training while fostering gains in self-efficacy. Equally important, these strategies supported the development of organizational infrastructure to sustain professional learning over time, ensuring that knowledge and confidence gains are reinforced through clear policies, procedural guidelines, and staff resource tools. Together, these outcomes reflect not only a strengthened capacity among EPIC's fitness staff to support adults with disabilities in CFFs, but also the creation of a sustainable framework that embeds professional development into the organization's long-term operations.

A substantial body of research informed each phase of the study, from design to implementation to assessment. Scholars have consistently highlighted the lack of disability-specific training in the fitness and wellness industries, identifying this gap as a significant contributor to inequities in service delivery and related health disparities for individuals with disabilities (Rimmer & Rowland, 2008). In response, this study prioritized knowledge acquisition and self-efficacy development, which are recognized as

key indicators of effective professional development and improved instructional practice (Bandura, 1997; Desimone, 2009).

The results confirm that identifying, implementing, and evaluating the Empowerment Model's SOS professional development training provided EPIC with a theoretically-based framework that effectively addressed both organizational goals and staff needs. This process culminated in the development of EPIC's draft Professional Development Policy, Procedural Guidelines, and Staff Training Resource Manual, each designed to institutionalize inclusive practices, build workforce knowledge and confidence, and strengthen the organization's infrastructure for sustainable and equitable service delivery.

Role of the logic model

When I first developed the logic model, my intent was to create a structured roadmap that aligned EPIC's resources, activities, and outcomes with the Board's strategic goal of strengthening professional development. I viewed it as a static planning tool to capture the steps needed to build staff knowledge, confidence, and infrastructure for sustainability. Through the course of the project, I came to recognize that the logic model was not static but a living document. Feedback from stakeholders, insights from the literature, assessments, focus groups, and lessons from implementation required me to revisit and adjust the original framework. These experiences taught me that clarity, flexibility, and alignment with real-world practice moving forward are essential to sustaining professional development. Reflecting on this process, I see the updated logic model not only as a product of the improvement effort but also as a guide for EPIC's

continued growth. It represents an evolving framework that can adapt as new insights emerge, embedding knowledge, confidence, and sustainability into the organization's culture and long-term capacity.

Workforce demographics and professional development training gaps

The demographic survey provided critical insights that confirmed both my initial assumptions and findings in the literature regarding gaps in disability-specific training. As I reflected on the data, it became clear that many EPIC staff members entered their roles with limited academic preparation and minimal practical experience working with individuals with disabilities. These findings reflected what scholars have often noted: Systemic gaps in disability awareness and adaptive fitness training persist across the industry (Rimmer & Rowland, 2008). The findings suggested the necessity of embedding intentional, disability-specific training within EPIC's professional development training pathways to ensure that staff are fully prepared to deliver inclusive, competent instruction. Although the participant group was small and consisted largely of staff early in their careers, this context provided meaningful insights into how the professional development model should be designed and delivered. The study demonstrated that structured, disability-focused training can build knowledge even among less experienced staff.

Looking ahead, I recognize that as the training expands to include a larger and more seasoned group, the core lessons remain relevant. More experienced staff may contribute deeper practical expertise; yet they too benefit from evidence-based strategies, structured reflection, and a shared framework for inclusive instruction. Embedding

consistent professional development across all levels of staff ensures a common language, aligned expectations, and practices that reinforce a strong organizational culture. In reflecting on this work, I see that the lessons learned extend well beyond the pilot group. They provide a durable foundation for scaling the professional development model across diverse levels of staff experience, ultimately strengthening EPIC's ability to deliver inclusive, high-quality fitness programming.

Reflection on literature review

Reflecting on these results, I recognized that the breadth and systematic rigor of the literature review process were essential in shaping the improvement effort. Working as part of a research team allowed for deeper investigation of existing models and ensured that the findings were both evidence-based and comprehensive. This process highlighted not only the absence of evidence-based, structured, disability-specific professional development for community fitness staff, but also the need for infrastructure that institutionalizes training, supports continuity, and enables sustainability across organizational contexts (Desimone, 2009; Rimmer & Vanderbom, 2016).

The Empowerment Model (Moran et al., 2014), identified through the literature review (Obrusnikova et al., 2023) as an example of an evidence-informed model, was selected for the study because it combined theoretical grounding with practical application, directly addressing the training gaps revealed through the systematic review. Its emphasis on knowledge acquisition, confidence development, and long-term infrastructure aligned with EPIC's mission and strategic goals. Importantly, it provided a framework for embedding professional development into formal organizational

structures—namely, through a professional development policy, procedural guidelines, and a staff resource manual. These supports ensured that professional learning at EPIC would not remain a one-time intervention but would instead be sustained, scalable, and responsive to evolving staff and member needs across community fitness facilities (Eaker & Marzano, 2020; Hipp & Huffman, 2010).

Reflection on knowledge gains across SOS instructional modules

The knowledge gains observed across the four Strategies of Success (SOS) instructional modules, measured on a scale from 0 to 100, highlight both strengths and areas for targeted reinforcement in future training cycles. The largest relative gain was recorded in *Addressing Challenging Behaviors*, with scores increasing from 46 to 79 (+33). This improvement suggests that participants deepened their understanding of strategies for identifying triggers, applying proactive interventions, and de-escalating challenging participant behaviors. Given that this domain began with a low baseline score, the gain reflects both the importance and the effectiveness of providing clear, scenario-based strategies in this area.

Planning Inclusive Programs showed a smaller, though positive, gain of +16 (69 to 85). Participants entered the module with relatively strong baseline knowledge, suggesting that many already possessed a foundational understanding of designing group and individual fitness activities for diverse abilities. The more modest increase indicates that while the content reinforced existing skills, additional case-based applications or collaborative program-planning exercises could further enhance mastery.

In *Modifying Instruction for Inclusiveness*, scores improved by +24 (41 to 65). This growth reflects participants' expanded ability to adapt communication methods, demonstrations, and feedback for participants with varied physical, cognitive, and sensory needs. However, as the domain with the lowest pre- and post-test scores on average, this is an area that could benefit from explicit instructional modeling and practical adaptation examples provided during training.

Accessibility Considerations demonstrated a gain of +16 (57 to 73). The increase suggests greater awareness of facility, equipment, and environmental modifications that promote safety and access for individuals with disabilities. However, the moderate gain also signals that this domain would be another place to embed more hands-on, site-specific assessments and accessibility audits into future training to strengthen applied skills in this area.

Collectively, these results underscore the varied baseline knowledge participants brought to the training and the differing degrees of growth across modules. While the overall average gain of 22 points on a 100-point scale reflects improvement, the patterns point to the value of using these results as formative assessment data. Specifically, the findings can help tailor future professional development by reinforcing high-priority areas with lower baseline knowledge and expanding applied, practice-based learning where growth was more limited. Additionally, it is important to consider that some module content that focused on younger individuals or school settings may have been less relevant to EPIC staff and could potentially be removed from future trainings. Embedding these feedback loops into EPIC's professional development infrastructure

will ensure that knowledge gains continue to be refined, sustained, and aligned with staff and organizational needs.

Summative assessments were built into each module, giving participants the option to retake tests multiple times, with only the highest score recorded for calculating gains. I did not collect information from participants about why they chose to retake or not to retake the module assessments. It may be that some participants did not engage in multiple retests because mastery was not required. This created a low-stakes environment for staff to engage with the material. In reflecting on the results, the relatively low number of attempts suggests that most participants were satisfied with their performance after one or two tries. This may explain why only 60% of participants achieved mastery. At the same time, the wider ranges—such as up to seven attempts in the Modifying Instruction module—highlight that some staff took advantage of the opportunity to revisit more difficult content until they felt more confident.

This pattern reinforced the idea that assessment can serve both as a measure of knowledge gain and as a meaningful learning opportunity. By allowing participants to engage at their own pace, the system encouraged self-directed practice and reflection without pressure to demonstrate mastery, aligning well with the goal of building confidence alongside knowledge.

Reflections on SOS self-efficacy gains

Staff demonstrated modest gains (0.5 points on a 10-point scale) on the self-efficacy assessment. Because staff on average scored highly on the pre-assessment, the instrument was less likely to register large gains. Relative gains were most visible in

Modify Activities and *Collaborate Effectively with Other Professionals*. These shifts may reflect an early stage of efficacy-building, consistent with the simulated nature of the training. While participants became more familiar with strategies and reported incremental increases in confidence, opportunities for authentic mastery experiences and live social persuasion were limited.

Because these results were generated through structured but simulated tasks, they should be viewed as formative indicators rather than final outcomes. The domain-specific data can provide a valuable diagnostic. Areas such as *Manage Behaviors* and *Motivate Individuals*, which showed minimal or negative change, highlight where staff training requires greater depth, practice, and support. Conversely, stronger gains in areas like activity modification and collaboration suggest that these topics may serve as springboards for more advanced training.

Importantly, these findings can be used to customize the next phase of professional development, ensuring that future modules, coaching strategies, and peer learning opportunities are responsive to staff needs. Embedding this type of formative assessment into EPIC's professional development infrastructure will enable the organization to continuously refine content, monitor progress over time, and sustain knowledge and confidence gains as part of a long-term PD system.

Two important limitations must be acknowledged. First, the SOS modules were delivered in simulated learning environments. While they provided structured exposure to strategies, they did not replicate the unpredictability, stress, or dynamic interactions of live community fitness settings where Bandura's (1997) sources of efficacy, especially mastery experiences and regulation of physiological states, are most effectively

strengthened. Second, the PESEISD-A, as a self-report tool, measured staff perceptions of confidence rather than observed competence. While self-efficacy is a critical predictor of performance, perceived confidence may not always translate into practice. Together, these limitations suggest that while the results are encouraging, they represent an initial step in efficacy development rather than evidence of sustained or authentic change.

Qualitative feedback from focus groups

Reflecting on the qualitative findings, feedback from focus group participants strongly reinforced the effectiveness of the SOS instructional modules. Staff consistently endorsed the training for its relevance, accessibility, and applicability to inclusive fitness contexts, often describing the experience as empowering and noting meaningful increases in both knowledge and confidence to apply inclusive instructional practices. These reflections mirror findings in the literature that highlight knowledge acquisition and self-efficacy as central indicators of effective professional development (Bandura, 1997; Desimone, 2009).

At the same time, participants expressed a clear desire for ongoing professional development rather than one-time training. They emphasized the importance of more hands-on opportunities, structured mentoring, peer collaboration, and follow-up workshops to sustain confidence, reinforce knowledge, and deepen practice over time. These elements mirror important aspects of the Empowerment Model that could not be included in this study but could be incorporated into future efforts. This perspective confirmed that professional development must be treated as a continuous, evolving process embedded within organizational culture, consistent with research showing that

collaboration and reflection strengthen both practice and sustainability (Hipp & Huffman, 2010; Eaker & Marzano, 2020).

These insights also directly shaped the development of EPIC's draft Professional Development Policy, Procedural Guidelines, and Staff Resource Manual, underscoring the importance of practitioner input in building sustainable systems. Focus group participants particularly endorsed the idea of the staff resource manual as a central, easily accessible reference tool that bridges the gap between training sessions and daily practice.

Importantly, these qualitative findings support the Empowerment Model's potential for scalability, suggesting that a structured, evidence-informed system of professional development can be extended across EPIC's multiple CFF sites to build long-term workforce capacity and strengthens the overall quality of inclusive service delivery.

Reflections on triangulation of quantitative and qualitative participant assessments

The module assessments demonstrated staff members' knowledge gains across multiple domains. The self-efficacy assessments provided some indication of staff confidence, but due to high initial scores gains were less clear. Focus groups complemented these results by adding depth and context, illustrating how strategies could be applied in staff members' own practice and suggesting that staff did feel confident.

However, the variable instructional module scores and focus groups pointed to domains, such as managing challenging behaviors and motivating program participants, that may require additional support. This triangulation of assessments and focus group

feedback provided a more complete picture than any single method alone, confirming the model's impact while pointing to areas for refinement.

Reflections on the development of EPIC's professional development training policy, procedural guidelines, and staff resource manual

By incorporating policy, procedural guidelines, and structured instructional resources into a unified system, EPIC positions professional development as both an expectation and a support. This infrastructure may strengthen staff knowledge and confidence while also promoting organizational sustainability. The development of EPIC's Professional Development Policy, Procedural Guidelines, and Staff Training Resource Manual marked a critical step in institutionalizing inclusive practices across the organization. As I reflected on this effort, the policy emerged as a clear articulation of EPIC's long-term commitment to professional development training outlining the guiding principles, expectations, and goals that shape inclusive professional growth. The accompanying Procedural Guidelines translated these commitments into actionable steps, detailing processes for onboarding, continuous learning, and leadership development. These documents provide a structured foundation that promotes clarity, consistency, and sustainability in professional development training across all levels of staff. The Staff Training Resource Manual serves as a practical extension of this framework. Designed to be immediately useful, it offers staff an accessible, on-the-job reference to reinforce instructional strategies and bridge the gap between formal training and daily practice. Taken together, these resources not only strengthen internal capacity but also reflect EPIC's proactive investment in a culture of excellence and inclusion.

Reflections on implementation and scaling

The professional development model was designed around EPIC's staffing structure but built with scalability in mind. Its core elements—structured disability-specific modules, self-paced online delivery, and embedded support for knowledge and confidence-building—can be adapted to other community fitness facilities. Early partnerships with YMCA branches and the Hockessin Athletic Club showed that the model can work in different organizational contexts when supported by institutional commitment and ongoing learning. Moving forward, the modules could be embedded into the on-boarding of new staff, continuing education for experienced staff, or professional learning communities, offering a flexible framework that can be tailored to diverse facilities.

Next Steps to Sustain Gains and Guide Future Efforts

To build on the progress achieved through this improvement effort and ensure long-term sustainability, the following priorities are recommended.

Board Review and Policy Endorsement

Present the full set of findings, documents, and resources to EPIC's Board of Directors for formal review and endorsement. Position the refined logic model as a shared framework for guiding professional development implementation, evaluation, and strategic planning across the organization.

Securing Professional Development Training Funding and Infrastructure

Pursue diverse and renewable funding sources including grants, state and federal programs, corporate partnerships, and philanthropic contributions to ensure the long-term viability of professional development training and infrastructure and reduce reliance on short-term funding cycles.

Scaling the Empowerment Model's Training Modules and Assessments

Expand implementation of the Strategies of Success (SOS) instructional modules and current and newly adopted assessments across all EPIC sites. Ensure scalability by providing consistent onboarding, standardized resources, and centralized tracking systems that monitor participation and outcomes.

Expanding the Scope of Professional Development Opportunities

Broaden the range of offerings by incorporating workshops, mentoring, peer learning communities, reflective practice groups, and ongoing coaching. Diversifying formats ensures that professional development is responsive to different staff learning needs and reinforces inclusive practices in varied contexts. Future studies can strengthen the initial findings by including a broader representation of certified trainers, therapists, and staff from YMCAs or athletic clubs to test scalability across more diverse professional backgrounds. They should also examine outcomes for specific participant groups, such as individuals with autism, to better understand how inclusive instructional strategies translate into meaningful improvements across diverse disability populations.

Monitoring Implementation in the Workplace

Establish systematic monitoring of how knowledge gained through professional development translates into practice. Use observation, summative and formative assessments that include pre and post testing, checklists, peer and supervisor feedback, self-assessments, reflective logs, and participant outcomes to track changes in knowledge and confidence in instructional practice over time.

Improving Outcomes for People with Disabilities

In this study, the intervention focused on staff gaining knowledge and did not include opportunities for staff members to practice and further develop skills in working with people with disabilities. Going forward, it will be important to explore how staff's implementation of inclusive practices impacts participant outcomes in three areas: physical health, psychosocial well-being, and program engagement. This will allow us to directly connect staff learning to meaningful improvements in the lives of adults with disabilities.

Sustaining Policy and Resource Integration

Maintain a dynamic Professional Development Policy, Procedural Guidelines, and Staff Resource Manual by embedding feedback loops, annual reviews, and integration of current research and evidence-based strategies. Ensure that these documents remain living resources that evolve alongside staff needs and organizational growth.

Building Infrastructure for Long-Term Sustainability

Develop dedicated staff leadership roles (e.g., PD coordinators, site mentors) and create internal systems for cross-site collaboration to embed professional development and supports into EPIC's infrastructure. This investment will institutionalize PD as an organizational priority, ensuring that knowledge and confidence gains are continuously reinforced and expanded.

CHAPTER 6

REFLECTIONS ON LEADERSHIP DEVELOPMENT

With 37 years of experience as an educator, including serving as a school principal for students with moderate to severe disabilities, I bring a unique, deeply rooted perspective on leadership. My journey in educational leadership has been grounded in a steadfast commitment to inclusivity, an understanding of the diverse needs of students with and without disabilities, and a dedication to creating environments where every child has the opportunity to thrive. These experiences not only sharpened my ability to lead dynamic educational teams but also reinforced the critical importance of cultivating a culture of high expectations, collaboration, empathy, and adaptability in leadership.

Looking back on those years, I've come to see leadership not as a fixed role, but as a dynamic and evolving skillset. As a principal, I learned that effective leadership requires a balance between operational expertise and authentic, meaningful relationships with the people I served, whether students, staff, families, or community partners. Supporting these diverse groups challenged me to be innovative and resourceful in removing barriers to access and equity, values that continue to define my leadership philosophy.

Currently, as co-founder and vice president of the board of Endless Possibilities in the Community (EPIC), a nonprofit organization dedicated to promoting the health and

well-being of adults with disabilities through inclusive community fitness facilities, I have further deepened my commitment to inclusion and accessibility. Leading EPIC has broadened my perspective on the need for systemic change, not only within our organization but also across communities and at the national level, to ensure that environments are inclusive for individuals of all abilities.

In my initial role as a volunteer supervisor of fitness staff and programming—despite its being outside my formal area of expertise I quickly identified the significant challenges posed by the fitness industry's lack of formal education requirements and professional development training. This experience revealed a critical gap: the lack of training for staff in community fitness facilities (CFFs), which directly impacts the quality of support available to adults with disabilities. Confronting these barriers has strengthened my resolve to advocate for and to implement comprehensive training solutions that equip EPIC's fitness professionals with the tools and knowledge they need to create inclusive, accessible environments for all.

Pursuing a doctorate in educational leadership was a natural and purposeful step in my professional journey. I saw this opportunity as a way to deepen my understanding of leadership theory and practice while gaining research-based insights that would strengthen my capacity to lead within EPIC, the wellness nonprofit organization that fuels my passion. My commitment to advancing inclusive practices in community fitness settings ultimately led me to enroll in the Ed.D. program at the University of Delaware, through which I have acquired knowledge and skills to enhance my efforts to improve training and support for fitness professionals working in inclusive community fitness facilities.

The coursework I have completed has provided me with critical insights and practical tools that have significantly enriched my leadership approach. One of the most impactful components was the development of a logic model, which offered a structured framework for evaluating the relationships among resources, activities, outputs, and outcomes. This model helped clarify how EPIC's professional development training initiatives could enhance staff knowledge, skills, and self-efficacy in supporting individuals with disabilities. It also underscored the importance of ongoing, systematic assessment to ensure that programs remain responsive to the evolving needs of both staff and participants.

As part of my ongoing research, I conducted extensive literature reviews that reinforced the pressing need for targeted professional development training programs for fitness professionals in inclusive settings. These reviews not only highlighted evidence-based best practices but also identified significant gaps in existing training models and instructional resources.

In the absence of a widely accepted, evidence-based model, the Empowerment Model, paired with its Strategies of Success (SOS) instructional framework, was identified as a "good practice" example for community-based programs. The SOS framework, consisting of four instructional modules focused on disability awareness and inclusive fitness content, was implemented to evaluate its effectiveness in enhancing the EPIC fitness staff's knowledge and self-efficacy.

The integration of advanced assessment technology, including quantitative and qualitative coding and data analysis, allowed me to synthesize findings and assess the program's impact with greater precision. This data-driven approach proved essential in

measuring staff growth in knowledge and self-efficacy, while also providing insights into how service delivery could be improved. Leveraging this data enabled more informed decision-making and will help guide the continuous refinement of EPIC's professional development training initiatives.

Coursework in policy development was particularly valuable, equipping me with the tools to structure and implement a professional development training policy that promotes sustainable success. I gained a deeper appreciation for the importance of establishing clear, accessible, and enforceable procedural guidelines that support staff in delivering consistent and effective assistance to participants. Similarly, the curriculum development course provided the foundation to design and identify an inclusive professional development training program tailored to the diverse needs of adult learners.

As I continue to grow in my leadership journey, I remain committed to applying both my practical experience and the research-based knowledge gained through the Ed.D. program to drive meaningful organizational change. I look forward to contributing to the broader field of inclusive fitness and wellness, supporting individuals with disabilities, and making a lasting, positive impact on the community.

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APPENDIX A:

Institutional Review Board (IRB) approval

Institutional Review Board
210H Hullihen Hall
Newark, DE 19716
Phone: 302-831-2137
Fax: 302-831-2828

DATE: September 9, 2024

TO: John Jadach
FROM: University of Delaware IRB

STUDY TITLE: [2215779-1] Strengthening Staff Self-Efficacy to Support Adults with Disabilities in Community Fitness Facilities

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS
EFFECTIVE DATE: September 9, 2024

REVIEW CATEGORY: Exemption category # 2*(ii)*

Thank you for your New Project submission to the University of Delaware Institutional Review Board (UD IRB). According to the pertinent regulations, the UD IRB has determined this project is EXEMPT from most federal policy requirements for the protection of human subjects. The privacy of subjects and the confidentiality of participants must be safeguarded as prescribed in the reviewed protocol form.

This exempt determination is valid for the research study as described by the documents in this submission. Proposed revisions to previously approved procedures and documents that may affect this exempt determination must be reviewed and approved by this office prior to initiation. The UD amendment form must be used to request the review of changes that may substantially change the study design or data collected.

Unanticipated problems and serious adverse events involving risk to participants must be reported to this office in a timely fashion according with the UD requirements for reportable events.

A copy of this correspondence will be kept on file by our office. If you have any questions, please contact the UD IRB Office at (302) 831-2137 or via email at hsrb-research@udel.edu. Please include the study title and reference number in all correspondence with this office.

INSTITUTIONAL REVIEW BOARD

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Welcome to IRBNet
John Jadach

Help

- My Projects
- Create New Project
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Project Administration

- Project Overview
- Designer
- Share this Project
- Sign this Package
- Submit this Package
- Delete this Package
- Send Project Mail
- Reviews
- Project History
- Create a New Package
- Messages & Alerts (5)

Other Tools

- Forms and Templates

Project Overview

[2215779-1] Strengthening Staff Self-Efficacy to Support Adults with Disabilities in Community Fitness Facilities

| Update |

You have Full access to this project.

Research Institution University of Delaware, Newark, DE
Title Strengthening Staff Self-Efficacy to Support Adults with Disabilities in Community Fitness Facilities
Principal Investigator Jadach, John

The documents for this project can be accessed from the **Designer**.

Project Status as of: 10/28/2025

Reviewing Board	Initial Approval Date	Project Status	Expiration Date
University of Delaware IRB, Newark, DE	09/09/2024	Exempt	

Package 2215779-1 is: Locked - Revisions Complete

Package 1 of 1 | Jump |

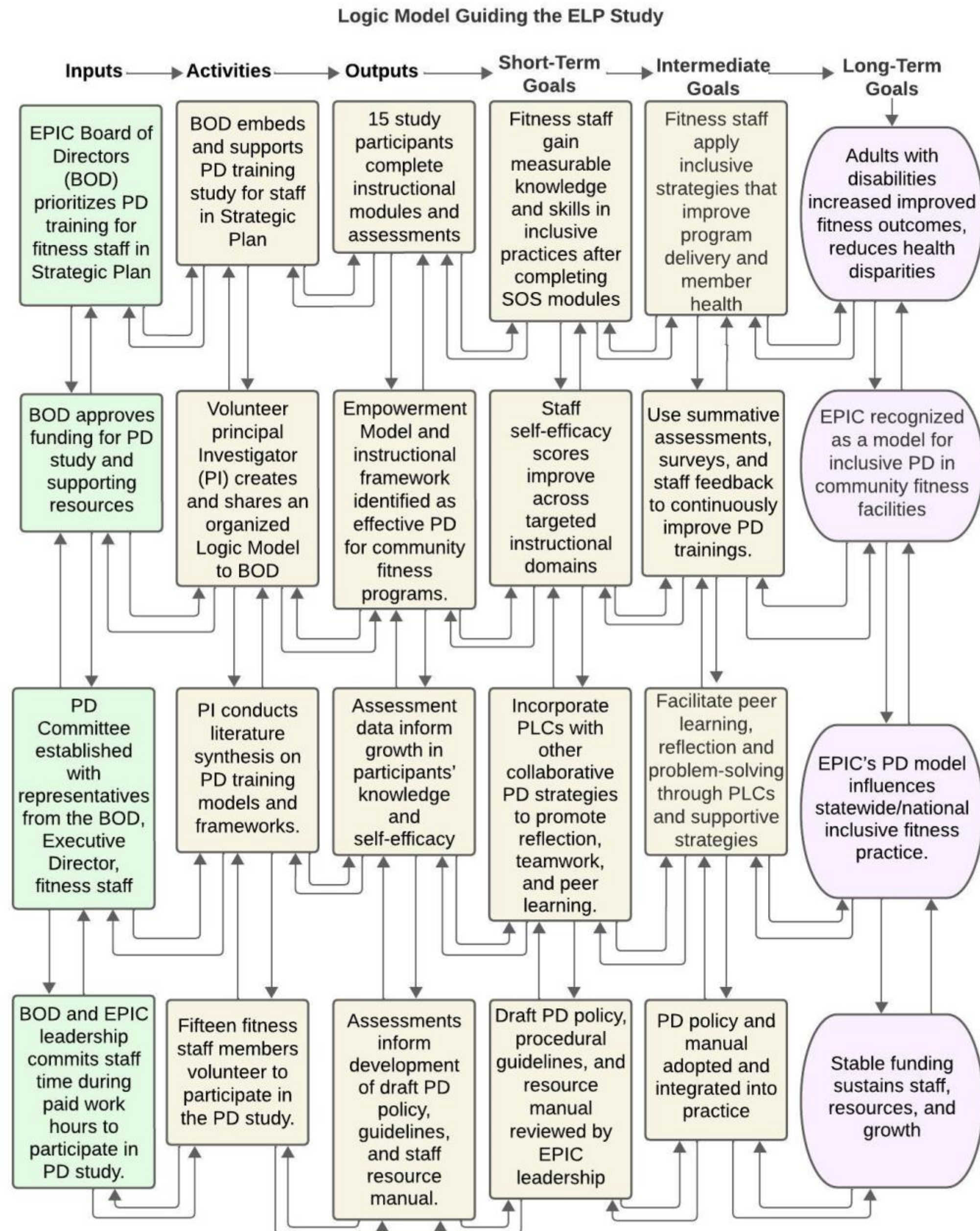
Submitted To	Submission Date	Submission Type	Board Action	Effective Date	
University of Delaware IRB, Newark, DE	07/19/2024	New Project	Exempt	09/09/2024	Review Details

Shared with the following users:

User	Organization	Access Type
Eisenman, Laura	University of Delaware, Newark, DE	Full
Jadach, John	University of Delaware, Newark, DE	Full

APPENDIX B:

Logic model



APPENDIX C:

Literature review

Physical activity

The Centers for Disease Control and Prevention (2025) emphasize that having a disability does not necessarily mean poor health. Rather, health is understood similarly for all people whether or not they have a disability as the capacity to maintain well-being and lead active, fulfilling lives.

Engagement in recommended levels of physical activity (PA) plays a crucial role in improving overall health for individuals of all ages and abilities by decreasing secondary health conditions. Through regular PA individuals can improve bone density and increase cardiorespiratory and muscular fitness, thereby lowering the risk for coronary heart disease, stroke, hypertension, diabetes, certain cancers, and metabolic syndrome, and premature death (Warburton, Nicol, & Bredin, 2006; World Health Organization, 2010).

Physical activity, as defined by Caspersen (1985), requires the expenditure of energy from any bodily movement. It can include a wide range of activities, such as cleaning the house, walking the dog, gardening, playing sports, or choosing to take the stairs instead of the elevator. Any activity that gets you moving and burns calories qualifies as PA.

Table 1.
Physical activity terms and definitions

Terms	Definitions
Physical activity	Any body movement generated by the contraction of skeletal muscles that raises energy expenditure above resting metabolic rate. It is characterized by its modality, frequency, intensity, duration, and context of practice (Caspersen et al., 1985).
Physical inactivity	The non-achievement of physical activity guidelines
Exercise	Subcategory of physical activity that is planned, structured, repetitive, and favors physical fitness maintenance or development (Caspersen, 1985)
Sedentary behaviors	Any waking behaviors characterized by an energy expenditure ≤ 1.5 metabolic equivalents (METs) while in a sitting, reclining, or lying posture (Tremblay, Colley, Saunders, Healy, & Owen, 2010). One MET is the energy you spend sitting at rest—your resting or basal metabolic rate. An activity with a MET value of 4 means you are exerting four times the energy you would if you were sitting still.

Physical activity and disability

According to the U.S. Census Bureau (2021), approximately 42.5 million Americans or about 13% of the population self-identified as having a disability (U.S. Census Bureau, 2021). Intellectual disability (ID) and developmental disability (DD) are subsets of the broader intellectual and developmental disability (IDD) classification. Intellectual disability typically refers to limitations in both intellectual functioning and adaptive behavior that affect an individual's cognitive, social, and practical skills, with onset before the age of 22 (Schalock & Luckasson, 2021). Developmental disabilities encompass a wider range of conditions that cause significant impairment in physical, learning, language, or behavioral areas. These disabilities generally emerge from birth through age 18 and often persist across the lifespan (Schalock & Luckasson, 2021).

While there are similarities between intellectual disabilities and developmental disabilities—both affect cognitive functioning and sometimes co-occur—they may have different underlying causes and manifestations. For example, an ID may be caused by genetic factors, while a DD may result from prenatal exposure to toxins or brain injuries during birth. Despite these distinctions, ID and DD are frequently grouped together under the umbrella of intellectual and developmental disabilities (IDD) due to their overlapping features and shared need for support and services. This allows for a comprehensive understanding and approach to addressing the needs of individuals with these disabilities (American Association on Intellectual and Developmental Disabilities, 2012).

Sutherland, Couch, & Iacono (2002) highlighted the significant health benefits of PA for adults with ID, and in a cross-sectional study Robertson et al. (2000) contributed to the evidence supporting the positive impact of PA on the health and well-being of individuals with ID. The systematic review conducted by Bartlo and Klein in 2011 provides valuable insights into the effects of PA on individuals with ID. Their findings indicated moderate to strong evidence supporting the benefits of PA for this population, particularly in terms of improving balance, muscle strength, and quality of life.

Physical activity guidelines and health disparities of individuals with disabilities

According to the Physical Activity Guidelines (PAG) established by the U.S. Department of Health and Human Services (2018), adults, regardless of disability status, should aim for at least 150 minutes (2 hours and 30 minutes) to 300 minutes (5 hours) a week of moderate-intensity aerobic PA. Alternatively, they can engage in 75 minutes (1 hour and 15 minutes) to 150 minutes (2 hours and 30 minutes) a week of vigorous-

intensity aerobic activity. It is also acceptable to combine moderate and vigorous activities to meet these recommendations.

Following these guidelines can help individuals lead healthier, more active lives. While low levels of PA continue to be a major problem in the general community (Rimmer, Chen, McCubbin, Drum, & Peterson, 2010), the issue is more serious among people with IDD across age, gender, and diagnostic groups. According to Stancliffe and Anderson (2017), the percentage of adults with IDD meeting PA guidelines (13.5%) was less than half that of the general population (30.8%).

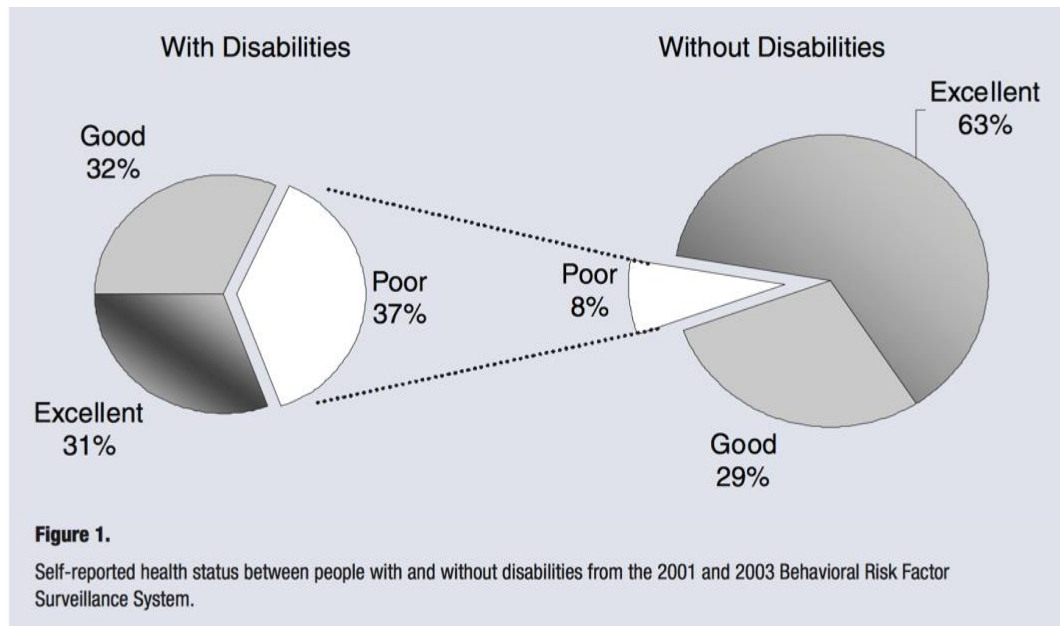


Figure 1.
Self-reported health status between people with and without disabilities from the 2001 and 2003 Behavioral Risk Factor Surveillance System.

Despite the availability of *Physical Activity Guidelines for Americans*, health disparities among adults with disabilities persist and may even be increasing. A recent systematic review revealed that adults with intellectual disability (ID), on average, spend about 60% of their waking hours in sedentary behavior (Lynch, McCarron, McCallion, & Burke, 2021). Given the link between sedentary behaviors and increased body weight and

obesity, many adults with ID have a higher prevalence of chronic health conditions driving greater healthcare costs.

A study by Drum, Horner-Johnson, and Krahn (2008) underscores the impact of disability severity. Using a self-rated health indicator, they showed that individuals with the most severe disabilities were particularly vulnerable to experiencing poor health outcomes. Moreover, using NCI-ACS 2009–2010 data, Hsieh, Heller, Bershadsky, and Taub (2015) found that 86.6% of participants with IDD did not meet the federal physical activity guidelines (U.S. Department of Health and Human Services, 2018).

Furthermore, the Centers for Disease Control and Prevention 2001 and 2003 Behavioral Risk Factor Surveillance System (BRFSS) data indicate a significant disparity in self-reported health status between people with disabilities and the general population. As illustrated in Figure 1, individuals with disabilities consistently report a much lower rate of good health than the general population. Individuals with disabilities tend to self-rate their health as fair or poor at higher rates than do individuals without disabilities. Moreover, among individuals with disabilities, those with more severe disabilities tend to report the highest proportion of poor health.

Insufficient PA poses significant challenges to public health. The World Health Organization (WHO) identifies it as a major risk factor for global mortality, contributing to approximately 6% of deaths globally (WHO, 2010). This underscores the importance of promoting and encouraging regular PA as part of a healthy lifestyle. Moreover, the disparities suggest that individuals with IDD face unique barriers or challenges to their participation in wellness programs, which hinders their ability to engage in sufficient PA

to meet recommended PA guidelines (Rimmer, Riley, Wang, Rauworth, & Jurkowski 2004).

Physical activity barriers and facilitators

The systematic review by Martin-Ginis, Ma, Latimer-Cheung, and Rimmer (2016) underscores the extensive range of barriers hindering PA participation among individuals with disabilities, as highlighted in previous studies by Bodde and Seo (2009) and Howie & Pate (2012). These barriers for individuals with disabilities are of various types, including logistical, financial, social, psychological, and institutional. Based on the findings of these studies, barriers to PA may include:

- Transportation issues: Difficulty accessing transportation to places where PA activity opportunities are available
- Financial limitations: Limited financial resources for accessing facilities that require membership fees for participation in paid PA programs
- Lack of social support: Absence of encouragement or support from family members, friends, or caregivers to engage in PA
- Low level of awareness and self-efficacy: Inability to engage in PA due to a limited understanding or lack of confidence about accessing inclusive PA resources
- Lack of access to environmental resources, including limited availability of adaptive equipment or suitable environments for PA adapted to individuals with disabilities
- Lack of clear policies: Absence of clear guidelines or policies among service providers regarding the inclusion of physical activities in the support provided to individuals with disabilities
- Lack of training of fitness center staff in disability issues and the provision of suitable programs

Therefore, personal trainers (PTs) and coaches, wellness instructors, health and physical educators, and direct service providers (hereafter referred to as "exercise specialists") are recognized as critical to the support of individuals with ID in community fitness facilities (CFFs) (De Lyon, Neville, & Armour, 2016; Riley, Rimmer, Wang, &

Schiller, 2008). However, these providers also experience barriers to supporting adults with disabilities in CFFs. Moran and Block (2010), Moran, Taliaferro, and Pate (2014), and Moran, Gibbs, & Mernin (2017) identified barriers to PA commonly experienced by PTs and exercise specialists that include:

- Lack of knowledge and expertise: Untrained PTs and exercise specialists may lack the necessary knowledge and expertise to effectively address the unique needs and challenges of individuals with disabilities in PA programs.
- Limited understanding of disability-specific considerations: Without specialized training focused on disability and fitness content, PTs and exercise specialists may struggle to understand the specific considerations and adaptations required to accommodate various types of disabilities in PA interventions.
- Inadequate communication skills: Effective communication is crucial for building rapport and for understanding the individual preferences and needs of participants with disabilities. Untrained PTs and exercise specialists may lack the necessary communication skills to effectively engage and support individuals with disabilities.
- Insufficient resources and support: Limited access to resources, such as adaptive equipment and assistive devices, can hinder the implementation of inclusive PA programs for individuals with disabilities. Additionally, a lack of organizational support and guidance may further impede the efforts of untrained PTs and exercise specialists.

The same investigators also identified facilitators of change, which include:

- Comprehensive training and education: Providing comprehensive training and education programs for PTs and exercise specialists can enhance their knowledge and skills in working with individuals with disabilities. This training should cover disability and fitness-related specific content considerations, communication strategies, and practical techniques for adapting PA programs.
- Professional development (PD) opportunities: Offering ongoing professional development opportunities, such as workshops, seminars, and continuing education courses, can help PTs and exercise specialists stay updated on best disability and fitness-related practices and emerging trends in inclusive PA programming.
- Collaboration and networking: Encouraging collaboration and networking among professionals working in the field of ID and PA can facilitate knowledge sharing and promote the exchange of ideas and resources. Building partnerships with community organizations and disability advocacy groups can also enhance access to supportive services and resources.
- Organizational support: Organizations can prioritize the development of inclusive policies and practices that support the participation of individuals with disabilities

> in PA programs. This may include allocating resources for accessibility modifications, providing staff training and support, and actively promoting inclusivity and diversity within the organization.

In order to promote effective, inclusive, community-based wellness programs, organizations must address barriers to staff training that are currently creating a shortage of skilled PTs and exercise specialists. They must also implement facilitators of change to increase knowledge and competencies supporting individuals with IDDs in PA (Riley et al., 2008; De Lyon et al., 2016).

Inclusive community fitness facilities (CFFs)

Community fitness facilities can serve as a valuable space for trained staff to promote PA and improve health and wellness among individuals with and without disabilities through exercise (Richardson, Smith, & Papathomas, 2017). CFFs can offer and make available a variety of exercise options, adapted equipment, and programming. By accommodating the diverse needs and preferences of individuals with IDDs, CFFs can empower those individuals to lead active, healthy lives and achieve their fitness goals.

Unfortunately, PTs and exercise specialists work within an unregulated fitness industry. Unlike practitioners in other professions, the fitness industry does not require PTs and exercise specialists to possess any exercise-related degree earned formally from a higher educational institution, or any fitness certification gained informally through an accredited fitness organization or completion of PD as requirements for employment (Melton et al., 2008). Without fitness industry standards for completed formal education, or for informal accredited fitness certification or PD training that includes disability and

fitness content, a knowledge and competency gap limits the self-efficacy of PTs and exercise specialists in their delivery of appropriate programming to individuals with disabilities. Hiring PTs and exercise specialists with uncertain competencies can also have negative consequences for members with and without disabilities (Melton et al., 2008).

A recent review examined training programs designed for professionals who support individuals with intellectual disabilities in physical activity settings (Obrusnikova, Jadach, Cavalier, & Firkin, 2023). The review of over 1,600 studies found that only two (Marks et al., 2013; McNamara et al., 2021) still lacked a systematic approach to intervention development and did not adequately assess the impact of the PD training on the trainees themselves. The current study emphasizes the importance of addressing the lack of skilled and knowledgeable personal trainers and exercise specialists needed to support individuals with ID in PA settings. It also highlights the need for more comprehensive and systematic PD training programs that can effectively prepare PTs and exercise specialists in support of PA within CFFs.

Self-efficacy

Bandura's self-efficacy theory (Bandura, 1997) is a highly relevant concept and useful approach to PTs' and exercise specialists' understanding of motivational factors that influence their attitudes towards their engagement of individuals with disabilities in inclusive PA activities.

According to the theory, individuals' self-efficacious beliefs about their capabilities are influenced by four main sources of information:

- Mastery experiences: Previous successes or failures in similar tasks or situations. Successes tend to enhance self-efficacy, while failures may diminish it, particularly if individuals attribute the failure to lack of ability rather than external factors.
- Vicarious experiences: Observing others similar to oneself succeed or fail in a particular task can impact self-efficacy. Witnessing someone similar to oneself succeed can bolster confidence, while observing failures might decrease it.
- Social persuasion: Encouragement or discouragement from others can influence self-efficacy. Positive feedback and support can enhance confidence, while negative feedback or criticism can undermine it.
- Physiological states: Physical sensations such as stress, fatigue, or relaxation can affect self-efficacy. For example, feeling anxious or fatigued might lower confidence, while being relaxed and energized could increase it.

PTs' and exercise specialists' beliefs about their knowledge and capabilities can play a central role in the process of deciding whether or not they include individuals with disabilities in PA activities. They are more likely to engage individuals with disabilities in PA who they perceive are within their skill set and consequently may incidentally exclude those individuals and activities they perceive as too challenging or likely to result in failure.

Addressing gaps in fitness staff's knowledge and training through structured professional development, while drawing on the principles of self-efficacy theory, can strengthen the quality of PA program design and delivery. As Bandura (1997) explains, self-efficacy influences the confidence individuals bring to performing challenging tasks, which in turn supports their effectiveness. When fitness staff gain both competence and confidence, they are better able to transfer knowledge and apply their skills across a range of inclusive fitness settings (Moran & Block, 2010).

An important gap exists in the research on self-efficacy within adapted physical activity (APA). Studies applying and exploring self-efficacy theory in APA contexts are relatively limited. Moreover, the specific influences of training, support, and

programming on self-efficacy beliefs have not been thoroughly investigated. While Bandura (1997) identified four primary sources of self-efficacy, the application of these sources in APA remains underexplored, and scholars have cautioned against oversimplifying their role without considering contextual and measurement challenges (Henson, 2002).

Addressing these gaps is essential for advancing our understanding of self-efficacy in inclusive community fitness facilities (CFFs). Future research should examine the role of professional development and assess how training, support, and programming influence the self-efficacy of personal trainers (PTs) and exercise specialists. Investigating the interplay of the four sources of self-efficacy offers a promising pathway for shaping PTs' and exercise specialists' confidence in their ability to effectively engage individuals with disabilities in physical activity.

The empowerment model and framework for professional development

Recent research has identified the Empowerment Model and framework to address PTs' and exercise specialists' identified knowledge and competency gaps. Moran et al. (2014) found that this framework, which is currently succeeding in community programming, can also serve as an example of a "good practice" for designing, staffing, and implementing PA programming in CFFs. Leveraging the model's framework of PD modules of disability and fitness-related instructional content with the four sources of self-efficacy (mastery experiences, vicarious experiences, social persuasion, and physiological states) can enhance PTs' and exercise specialists' knowledge, confidence,

and motivation in including and supporting individuals with disabilities within a CFF setting.

Moreover, the roles and responsibilities of PTs and exercise specialists are similar in many ways to those of teachers. Both strive to educate and motivate individuals with and without disabilities to reach identified goals. Effective instructional practices supporting PTs and exercise specialists draw upon educational research that aims to enhance teaching practices and student learning (Desimone, 2009). Pedagogical techniques that extend to the fitness discipline may include:

- Content Focus: PD activities concentrating on subject matter relevant to the roles of PTs and exercise specialists, such as disability and fitness-related content, with strategies to effectively teach and facilitate learning in those areas. PD topics within the Empowerment Model's self-paced PD modules include Addressing Challenging Behaviors, Planning Inclusive Programs, Modifying Instruction for Inclusiveness, and Accessibility Consideration.
- Active Learning: PD providing opportunities for PTs' and exercise specialists' active engagement, such as observation, receiving feedback, and analyzing planned and completed workouts and supportive behaviors. Passive listening to lectures should be minimized in favor of interactive and participatory methods.
- Coherence: The content, goals, and activities of PD aligned with the needs of program members, knowledge and beliefs of staff, organizational and funding source goals, and relevant policies such as those related to disability, fitness, and diversity. This ensures that the PD is meaningful and applicable to the context in which PTs and exercise specialists work.
- Sustained Duration: Effective PD as an ongoing process rather than a one-time event. PD activities should be sustained throughout the year and provide a substantial amount of contact time, ideally totaling 20 hours or more. This extended duration allows for deeper learning and application of new knowledge and skills.
- Collective Participation: PD promoting collective participation, with groups of PTs and exercise specialists collaboratively engaging in learning activities. This fosters an interactive professional learning community where participants can learn from each other, share experiences, and collaborate on improving practice.

This listing of effective instructional practices and PD would foster a supportive and inclusive learning environment, promote self-efficacy and confidence among fitness

professionals, and ultimately improve the quality of PA programming for individuals with disabilities.

Professional Learning Communities (PLCs) (Eaker & Marzano, Eds., 2020) are designed to create supportive learning environments. By recognizing and addressing the unique strengths and needs of each staff member, PLCs can foster individual and group learning, creating a culture of mutual support and growth. Reflective professional inquiry encourages continuous learning and improvement leading to collective problem-solving and innovation (Bolam, McMahon, Stoll, Thomas, & Wallace, 2005; Hipp & Huffman, 2010). The establishment of a PLC for fitness staff within a CFF can enhance the implementation of agreed-upon PD training outcomes.

The Empowerment Model's PD training consists of a five-"E"-stage progression focused on increasing fitness staff's knowledge and skills through disability and fitness-related content (Moran et al., 2014). PD outcomes strive to increase PTs' and exercise specialists' self-efficacy, which is essential to meeting the needs of individuals with disabilities in CFFs, through:

- Engagement: PTs and exercise specialists encouraged to develop a willingness to engage with individuals with disabilities. This involves fostering an inclusive and welcoming attitude, building rapport, and establishing trust with members with disabilities to facilitate effective communication and collaboration.
- Education: PTs and exercise specialists gaining the knowledge needed to understand the unique needs, abilities, and challenges of individuals with disabilities. This includes understanding various types of disabilities, their impact on mobility and function, and relevant principles of adaptive exercise programming and inclusive practices.
- Equipment: PTs and exercise specialists gaining the skills needed to meet the diverse needs of individuals with disabilities in CFFs. This involves developing proficiency in adaptive exercise techniques, assistive technologies, and communication strategies to effectively support members with disabilities in achieving their fitness goals.
- Empowerment: PTs and exercise specialists gaining the confidence, competence, and self-efficacy to work effectively with members with disabilities. This

involves building self-confidence, belief in one's abilities, and a sense of empowerment to overcome challenges and barriers encountered in supporting members with disabilities.

- Elevation/Evaluation: PTs and exercise specialists continually assessing their effectiveness as instructors who strive to elevate their ability to address the specific needs of individuals with disabilities. This involves ongoing evaluation of their practice, seeking feedback from members and colleagues, and pursuing opportunities for PD and professional skill enhancement.

Conclusions

It is evident from the literature review that adults with disabilities face significant barriers to accessing personalized fitness programs and support systems for increased physical activity. The shortage of personal trainers and exercise specialists trained to work with individuals with disabilities exacerbates this problem. Addressing the challenges surrounding the lack of knowledge and training among fitness professionals, particularly in supporting individuals with disabilities in inclusive PA settings, requires a comprehensive approach. One key component of this approach is the identification and implementation of a flexible, cost-effective, and standardized training solution for fitness professionals. By equipping fitness professionals with the skills, knowledge, and self-efficacy necessary to provide and promote accessibility and inclusivity, improve health outcomes, and enhance quality of life, the organization, fitness staff, stakeholders, and the community can work towards creating more supportive fitness environments for improving the physical and mental health of individuals with disabilities.

Clear policies and procedural guidelines that articulate inclusive goals for fitness staff's roles, responsibilities, and implementation processes can serve as a critical roadmap for promoting consistency, accountability, and best practices across programs.

When these guidelines are embedded within a staff professional development (PD) training resource manual that includes instructional content focused on disability awareness and fitness-related inclusion, they reinforce the organization's commitment to equity. This integration ensures that inclusivity is treated not as an optional initiative, but rather as a core expectation rooted in the culture and delivery of PA programs.

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APPENDIX D:

Methodology: Qualtrics demographic survey

Please take a moment to share basic information about yourself. Your responses will help us better understand the study's results.

Demographic Questions

Q1 What is your current age in years?

- 18–25
- 26–35
- 36–45
- More than 45 years old

Q2 Gender: How do you identify?

- Male
- Female
- Non-binary
- Transgender
- Other Self-identity (please specify)
- Prefer not to say

Q3 How many credit-bearing undergraduate courses have you completed on the topic of adapted physical education or disability and fitness?

- None
- 1
- 2
- 3–5
- 5+

Q4 How many credit-bearing graduate courses have you completed on the topic of adapted physical education or disability and fitness?

- None
- 1–2
- 3–5
- 5+

Q5 What degree from an accredited educational institution do you currently hold?

- Physical Therapy Assistant
- Health Science or Fitness-Related Discipline
- Educator
- Other Fitness-related degree (Please Specify)
- None

Q6 What fitness certifications do you currently hold?
- Personal Trainer
- Other (Fitness-related certification). Please type in.
- None

Q7 Including this year, how many years of experience do you have working with adults with disabilities in inclusive community fitness facilities?
- Less than 1 year
- 1 to 2 years
- 3 to 5 years
- More than 5 years

Q8 Outside of EPIC, what age levels of individuals with disabilities have you previously worked with in inclusive CFFs?
- Youth 3–12
- High School 13–17
- Adult 18+
- Youth, High School and Adult
- None

D.1: Methodology: Demographic survey and results

Total Participants: 15

1. Age Distribution

Age Range	Participants	% of Total
18–25	4	26.7%
26–35	3	20.0%
36–45	4	26.7%
Over 45	4	26.7%

2. Gender Identity

Gender	Participants	% of Total
Female	12	80.0%
Male	3	20.0%
Other	0	0%

3. Academic Preparation—Undergraduate Coursework in Disability & Fitness

Course(s) Completed	Participants	% of Total
None	6	40.0%
1	3	20.0%
2	1	6.7%
3–5	3	20.0%
More than 5	2	13.3%

4. Graduate Coursework in Disability and Fitness

Course(s) Completed	Participants	% of Total
None	13	86.7%
1	1	6.7%
More than 5	1	13.3%

5. Degrees Held

Type	Participants	% of Total
None	5	33.3%
Physical Therapy Assistant	1	6.7%
Health Science/Fitness Related	3	20.0%
Other Fitness Related	6	40.0%

6. Fitness Certifications Held

Certification Type	Participants	% of Total
None	5	33.3%
PTA credential	1	6.7%
Health/Fitness-related	3	20.0%
Other (unspecified)	6	40.0%

7. Years of Experience	Participants	% of Total

Less than 1 year	4	26.7%
1 to 2 years	4	33.3%
3 to 5 years	3	20.0%
More than 5 years	3	20.0%

8. Previous Experience Working with Different Age Groups with Disabilities (Outside EPIC)

Experience Type	Participants	% of Total
None	6	40.0%
Youth (3–12)	6	40.0%
High School (13–17)	2	13.3%
Adults 18+	1	6.7%
All Age Groups	0	0.0%

APPENDIX E:

Methodology: Empowerment model's strategies of success (SOS) instructional modules pre and post test

Instructional Module #1: Addressing Challenging Behaviors

1. Which of the following is a process for understanding, resolving, and reducing the challenging behavior of participants?
   - Reduction Management
   - Positive Behavior Support
   - Responding Strategies
   - Supportive Analysis

2. Which of the following describes a situational factor that exists prior to a problem behavior and may have even triggered the behavior?
   - Antecedent
   - Consequence
   - Predetermination
   - Cause

3. Which of the following occurs after a behavior and generally makes a behavior more likely to occur again in the future?
   - Antecedent
   - Consequence
   - Post-cedent
   - Cause

4. In which strategy would you try to avoid a trigger (antecedent) of the behavior?
   - Preventing
   - Responding
   - Replacing
   - Eliminating
   - Rewarding

Please use the following scenario to answer questions 5–12:

Kylie is a new player on your community recreation basketball team who has just moved to your area. You are becoming increasingly concerned about her behaviors during practice. First, when the group is listening to directions for activities or drills, Kylie continues to talk, interrupts you, and doesn't pay attention to the directions. She also calls out and tries to distract other participants, which is making giving instructions difficult, as you have to keep stopping and reminding Kylie to listen. The constant interruptions are also making it difficult for other players to understand and follow the directions. While waiting her turn in drills, Kylie pushes others, slaps others, and has even pulled a teammate's hair, causing this player to cry. Each time you have seen this behavior, you have reminded Kylie that she needs to wait patiently and keep her hands to herself. Unfortunately, as soon as you turn your attention away, she continues the behavior. This behavior especially occurs as players are waiting in line to shoot foul shots from the foul line. Kylie does not seem to enjoy this activity because it is rare that she makes any shots from this distance. Today, she slapped a teammate while waiting in line to shoot, and you sent her to sit in time out for 2 minutes. The other players are starting to shy away and distance themselves from Kylie due to her behaviors, and you are worried that someone might get hurt. There is an expectation that participants will sit quietly and pay close attention to directions given by the instructor.

5. Which key to effective behavior management does the scenario violate when Kylie is unable to sit quietly and pay attention to directions given to her?
   - Routines
   - Rules
   - Accountability
   - All of the above

6. The fact that Kylie "does not seem to enjoy this activity because she rarely makes any shots" is a(n) __________ to the behavior of slapping the teammate.
   - Antecedent
   - Consequence
   - Prevention Strategy
   - None of the above

7. When Kylie interrupts, you stop what you are doing and ask her to pay attention. This is a ___ of the behavior.
   - Antecedent
   - Post-cedent
   - Consequence
   - All of the above

8. In thinking about Kylie, you realize that since she is new to the area, she is eager to make friends. Getting her teammates' attention might be a _____ of the behavior.
   - Antecedent
   - Post-cedent
   - Consequence

- Function

9. You decide to break the team into smaller groups so that there is not so much waiting during practice. What type of technique might this be considered?
   - Preventing
   - Responding
   - Replacing
   - Eliminating
   - Rewarding

10. You reflect on your lesson and plan to allow students to shoot the ball the next time from any distance they wish. This is considered:
    - Prevention
    - Responding
    - Replacement
    - Elimination
    - Rewarding

11. You decide to try a strategy to address Kylie's behaviors in which she will earn a smiley face sticker for every 5 minutes she keeps her hands to herself during practice. If she earns 5 stickers by the end of practice, she gets to be the warm-up leader the next day. This strategy is known as:
    - Token economy
    - Picture schedule
    - Social story
    - Task cards

12. You plan to help Kylie learn that a better way to gain a teammate's attention is to gently tap them on the shoulder. This would be considered:
    - Prevention
    - Responding
    - Replacement
    - Elimination
    - Rewarding

Instructional Module #2: Planning Inclusive Programs

Answer questions 1–5 based on the following scenario.

You are teaching a beginner swim class on Saturdays. One of your participants is a 6-year-old boy, Paul, who has a non-specified intellectual disability. He appears to be non-verbal. His parents insist that he can understand everything you are saying; however, he does not respond verbally and has poor communication skills. After struggling through

the first lesson, you recognize that Paul has some unique needs, and therefore you need to develop a plan in order to meet his needs.

1. At the conclusion of the first lesson, you are trying to describe your observations to the parents. Which of these statements is the most appropriate way to state your observations?
   - Your son exhibits some autistic tendencies.
   - During the first lesson, I observed that your son did not make eye contact and did not respond to directions when we tried to get him to leave the corner of the pool.
   - I'm worried about your son's behavior and refusal to follow directions.
   - Paul seems to be unable to participate in this setting due to his behavior.

2. Which of the following would be an appropriate and effective way to learn more about Paul's needs?
   - Ask Paul's parents to complete a written or electronic questionnaire to find out more about Paul's strengths, weaknesses, and interests.
   - Request a meeting with Paul's parents to discuss communication and behavior management strategies.
   - Communicate directly with Paul, using pictures or electronic communication to find out what Paul enjoys.
   - All of the above
   - The first two options only

3. Before the next class, what factors do you need to consider regarding your new student, Paul?
   - I need to develop different communication strategies.
   - I need to learn about Paul's strengths, weaknesses, and interests.
   - I may need to develop individual goals for Paul.
   - All of the above are important factors to consider.

4. You have a meeting with the family before the next lesson. You want to find out what motivates Paul. How do you address your questions?
   - Ask Paul what kinds of toys he likes to play with or what he likes to do.
   - Ask Paul's parents what toys or food treats they use to motivate Paul.
   - Suggest using chocolate candy as a motivator and see how the parents respond.
   - Let Paul's parents know that he will need to sit in time out if he cannot respond to your instructions.

5. When you are discussing Paul's needs, what is an appropriate way to refer to him?
   - I have a handicapped kid in my Saturday swim class.
   - A child in my Saturday swim class has an intellectual disability.
   - There is a mentally disabled kid in my swim class.
   - The kid in my swim class is slow but he tries hard.

Answer questions 6–8 about program planning based on the following scenario.

You are a program planner for a local wellness facility. Lakisha, a young adult female who has cerebral palsy, expresses interest in joining and getting a monthly membership in order to "lose weight and get healthier."

6. Once you have met with Lakisha, what would be the next step in working with her?
    - Ask Lakisha how much weight she wants to lose.
    - Assign Lakisha to the weight loss fitness program specifically for individuals with disabilities.
    - Assess Lakisha's current fitness level.
    - Put Lakisha on a diet.

7. Which of the following might be a meaningful goal to help Lakisha get started?
    - In 6 months, Lakisha will be able to either walk or spin on a stationary bike at 60% intensity for 15 minutes.
    - Lakisha will lose weight and improve her health by the end of the year.
    - Lakisha will increase her physical fitness within 6 months.
    - Lakisha will be able to run a 10K.

8. Which type of program would be the best type to meet Lakisha's needs?
    - A fully inclusive setting such as a group fitness class
    - A specialized class specifically designed for individuals with disabilities, such as a group fitness class for individuals with intellectual disabilities
    - A one-on-one personal training program
    - You cannot yet decide because this decision should be made with input from Lakisha and her caregiver to determine which type of program will best meet her needs.

Answer questions 9–12 based on general guidelines and recommendations for program planning.

9. What does the acronym SMART stand for?
    - Specific, measurable, attainable, relevant, and time-bound
    - Specific, meaningful, actionable, relevant, and time-bound
    - Specific, meaningful, attainable, real, and trustworthy
    - Specific, measurable, actionable, real, and time-bound

10. Which of the following are NOT key factors to remember throughout the process of program planning?
    - Structure and consistency
    - Purposeful activities
    - Sensory awareness
    - Novelty and variety

11. Which of the following is an example of an inclusive setting?
    - An individual with a disability participates in the same class or program and has the opportunity to participate in the same activities as individuals without disabilities with modifications as necessary.
    - An individual with a disability participates in a class with individuals without disabilities, but performs different tasks or activities.
    - An individual with a disability participates in the same class or program as individuals without disabilities but may play a different role, such as score keeper or cheerleader.
    - An individual with disabilities participates in a class alongside other individuals with disabilities.

12. When collaborating with other professionals, such as a physical therapist, to gather information on a participant with a disability, which of the following is true?
    - You should never discuss an individual's case with another person.
    - You should only discuss an individual's case with others when the person with a disability is not in the room so that they do not overhear you.
    - You need to get the individual's or caregiver's permission before discussing an individual's case with another person.
    - You should discuss the individual's case over the phone only, not in writing.

Instructional Module #3: Modifying Instruction for Inclusiveness

1. Which of the following refers to a tool instructors can use to determine the most appropriate instructional decisions for a given situation, activity, skill, or ability level?
    - PROCESS theory
    - ADAPT principle
    - TREE principle
    - THINK theory

2. Why is it important to gather information to understand the abilities, limitations, and interests of a participant with a disability prior to planning your instruction? Select all that apply.
    - This information can help you determine how the participant learns best.
    - This information can help you determine challenges participants may face during a program, activity, or skill.
    - This information can help you determine if you can exclude the participant from your program.
    - This information can help you determine how to best adapt and modify activities for participants.
    - This information will help you to pre-screen the participant to make sure they have the same skill level as the rest of the group.

3. Which of the following adheres to recommendations for how instructors should provide directions?
   - Are you ready to get in the pool?
   - How many laps to you want to run today?
   - Hold the kickboard with two hands.
   - What would you like to do next?

4. Using a larger ball, such as a beach ball, during a baseball hitting activity to help a participant be more successful is an example of a(n):
   - adaptation
   - modification
   - re-design
   - standardizing

5. Which one of the following groups of terms defines the items in the TREE Principle?
   - Tips, Routines, Environment, Examples
   - Time, Rules, Expectations, Examples
   - Task, Routines, Equipment, Expectations
   - Technique, Rules, Equipment, Environment

6. Visual planners or picture schedules are a good way to:
   - Communicate expectations
   - Provide demonstrations
   - Give directions in a clear firm voice
   - Pay attention to non-verbal communication

7. Which of the following terms involves making a task easier or harder by changing the environment or equipment, while the skill to be performed remains the same?
   - adaptation
   - modification
   - re-design
   - standardizing

8. In which of the following class formats do participants without disabilities join an activity or program that was organized to meet the needs of participants with disabilities?
   - Inclusion
   - Stations
   - Reverse inclusion
   - Self-paced

9. Which of the following terms involves changing the way a skill or task is performed?
   - Adaptation
   - Modification

- Re-design
- Standardizing

10. The Paralympic Sport of sitting volleyball makes adaptations to which item in the TREE principle?
    - Technique
    - Rules
    - Equipment
    - Environment

11. Which of the following adheres to recommendations for how instructors should provide directions?
    - When you get to your therapy ball, sit and balance and do 10 leg raises.
    - What color therapy ball would you like to use?
    - Don't sit on your therapy ball too quickly.
    - Find a therapy ball.

12. When playing wheelchair tennis, allowing for two bounces instead of one applies to which of the following items in the TREE Principle?
    - Technique
    - Rules
    - Equipment
    - Environment

13. True or False: When giving directions, it is important to speak slower than normal so that a person who is deaf or hard of hearing can better understand.
    - True
    - False

14. Which sequence showcases prompting levels in order from least to most support?
    - Environmental, Verbal, Verbal + demonstration, Verbal + physical assistance
    - Verbal, Verbal + demonstration, Verbal + physical assistance, Environmental
    - Verbal + physical assistance, Verbal + demonstration, Verbal, Environmental
    - Verbal, Environmental, Verbal + demonstration, Verbal + physical assistance

15. A good modification meets which of the following criteria? Check all that apply
maintains the concept of the game for all participants
    - keeps the game or activity age-appropriate
    - maintains safety for all participants
    - allows the participant with a disability to participate successfully and meaningfully
    - gives individuals with a disability an advantage over other participants

The following questions refer to the example below.

Olivia is 6 years old and has Autism. She is nonverbal, makes little or no eye contact, and has a difficult time remaining on task. She responds well to cause and effect relationships (action–reaction), simple one-word instructions, and purposeful environments (e.g., environment communicates what she needs to do during activities, such as footprints to help her know where to stand). Olivia's parents want her to join your softball team.

16. Before using hand-over-hand assistance to help Olivia, which of the following should you do?
    - Adapt the skill in case Olivia won't be able to successfully perform it.
    - Ask Olivia for permission to provide assistance.
    - Ask Olivia's parents for permission to provide assistance.
    - Have Olivia sit on the side so she can watch the other players perform the skill.

17. Which of the following would be considered an adaptation for Olivia in the skill of batting?
    - Allow Olivia to hit off a tee if she misses the pitched ball three times.
    - Allow Olivia to use a lighter bat.
    - Allow Olivia to hit a larger ball, such as a playground ball.
    - Allow Olivia to roll the ball into the field instead of hitting it.
    - Allow Olivia to play in the field the entire time since she has difficulty with the skill of hitting.

18. Which of the following would be considered a modification you could make for Olivia when practicing catching? Check all that apply:
    - Allow Olivia to practice catching without a glove.
    - Allow Olivia to practice with a softer ball.
    - Stand closer to Olivia when tossing the ball to her.
    - Allow Olivia to roll a ball back and forth with a partner instead of throwing and catching.

Instructional Module #4: Accessibility Considerations

1. Which of the following terms means that a place follows the laws about how something should be built, allowing persons with disabilities to use the facility and participate fully in all aspects of life.
    - Accessibility
    - Functionality
    - Universal Design
    - Architectural Standards

2. Which of the following terms means that a facility not only meets minimum accessibility standards but is usable by individuals with disabilities?
    - Accessibility

- Functionality
- Universal Design
- Architectural Standards

3. For which of the terms below are barriers eliminated in the design phase, so that one design is usable by all people?
    - Accessibility
    - Functionality
    - Universal Design
    - Architectural Standards

4. Which of the following is an example of universal design?
    - Having one handicapped accessible room available in a hotel
    - A designated seating area in the movie theater in which chairs have been removed for use by people who use wheelchairs or other accessibility devices
    - Light switches that can be reached from both standing and seated positions
    - Having two versions of a program brochure available, one in print and one in braille

5. According to the ADA, groups/organizations that are open to the public such as state and local government programs, restaurants, fitness facilities and gyms, and sports venues must not discriminate against people with disabilities in how they provide goods and services. These groups/organizations are referred to as:
    - Accessible organizations
    - Publicly available spaces
    - Public accommodations
    - Public compliance

6. Which laws discuss facility accessibility considerations for individuals with disabilities? Check all that apply
    - The Education for All Handicapped Children Act of 1975
    - The Social Security Act
    - The Community Services Act
    - The Americans with Disabilities Act
    - Section 504 of the Rehabilitation Act of 1973

7. Which of the following would NOT be considered a “readily achievable” accessibility accommodation under the Americans with Disabilities Act?
    - Installing an elevator in the building of a small family business
    - Moving display racks in a department store so that the aisle is wide enough for a person in a wheelchair
    - Replacing the curb from the parking lot to the sidewalk with a curb cut
    - Lowering the paper towel dispenser in the public bathroom
    - Rearranging tables and chairs in a meeting room for wider walking paths

8. Weight room equipment being spaced far enough apart so that an individual who uses a walker, cane, or wheelchair can easily get to the equipment is an example of what type of accessibility?
   - Physical
   - Social
   - Programmatic
   - Transportation
   - Attitudinal

9. Considering best practices for accessibility in website and website design is an example of which type of accessibility?
   - Physical
   - Social
   - Programmatic
   - Information and Communication
   - Attitudinal

10. Which checklist covers accessibility in areas such as nutrition and healthy eating inclusion, physical activity inclusion, program materials, staff, wellness and health promotion, transportation, policy, and inclusion attitudes/readiness to change?
    - ADA Checklist
    - Nutritional Health Checklist
    - Accessibility Screening Index
    - Community Health Inclusion Index

E.1: Pre and post test scores of knowledge

Table D1. Empowerment Model's Strategies of Success Instructional Modules: Pre and Post Test Scores of Content Knowledge Gains by Study Participants

Participant ID #	Module 1: Addressing Challenging Behaviors		Module 2: Planning Inclusive Programs		Module 3: Modifying Instruction for Inclusiveness		Module 4: Accessibility Considerations	
	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test
3	0.75	0.83	0.67	0.92	0.33	0.83	0.20	0.90
4	0.58	0.67	0.92	0.92	0.28	0.39	0.20	0.70
5	0.50	0.83	0.92	1.00	0.67	0.89	0.70	1.00
6	0.50	0.75	0.92	0.92	0.39	0.67	0.40	1.00
7	0.42	0.92	0.50	0.83	0.44	0.78	0.60	1.00
8	0.25	1.00	0.42	0.75	0.22	0.89	0.50	0.90
9	0.25	0.83	0.75	0.83	0.22	0.89	0.70	0.70
10	0.58	0.83	1.00	1.00	0.56	1.00	0.60	0.80
11	0.42	1.00	0.92	0.92	0.33	0.67	0.70	0.80
12	0.67	0.50	0.92	0.83	0.44	0.44	0.80	0.40
13	0.33	1.00	0.92	0.92	0.44	0.89	0.40	0.90
14	N/A	N/A	0.25	0.75	0.50	0.39	0.50	0.30
16	0.58	0.75	0.50	0.67	0.67	0.39	0.80	0.80
17	0.25	0.83	0.17	0.92	0.22	0.28	0.60	0.30
18	0.42	0.33	0.67	0.67	0.39	0.33	0.80	0.40
Average	0.46	0.79	0.69	0.85	0.41	0.65	0.57	0.73
Knowledge Gained	0.33		0.16		0.24		0.16	
Number of Questions	12		12		18		10	

APPENDIX F:

Revised PESEISD-A Self-Efficacy Survey

Please rate your degree of confidence by recording a number from 0 to 10 using the scale given below before and after engaging in the Empowerment Model's Strategies for Success (SOS) instructional modules.

0	1	2	3	4	5	6	7	8	9	10
Cannot do at all					moderately can do					highly certain

I am confident in my ability to:	Confidence (0–10)
Modify equipment for individuals with disabilities who are included in my community-based physical activity program	
Modify activities for individuals with disabilities who are included in my community-based physical activity program	
Create a safe environment for individuals with disabilities who are included in my community-based physical activity program/activity	
Promote social interactions with peers for individuals with disabilities who are included in my community-based physical activity program	
Manage behaviors of individuals with disabilities who are included in my community-based physical activity program	
Modify instructions for individuals with disabilities who are included in my community-based physical activity program	
Assess the motor skills of individuals with disabilities who are included in my community-based physical activity program	
Modify rules to games for individuals with disabilities who are included in my community-based physical activity program	
Collaborate effectively with other teachers/professionals regarding individuals with disabilities included in my community-based physical activity program	
Motivate individuals with disabilities who are included in my community-based physical activity program	

F.1: Pre and Post Self-Efficacy Survey Raw Data

Collected by The Physical Educators' Self-Efficacy Toward Including Students with Disabilities Autism Surveys (revised PESEISD-A)

Please rate your degree of confidence by recording a number from 0 to 10 using the scale given below prior to and after engaging in the Empowerment Model's Strategies for Success (SOS) instructional modules:

0	1	2	3	4	5	6	7	8	9	10
Cannot do at all					moderately can do				highly certain can do	

Modify equipment for individuals with disabilities who are included in my community-based physical activity program

Pre	0	1	2	3	4	5	6	7	8	9	10
				(1)			(3)	(3)	(6)	(2)	

Post	0	1	2	3	4	5	6	7	8	9	10
(1)	(1)	(4)	(2)	(7)							

Modify activities for individuals with disabilities who are included in my community-based physical activity program

Pre	0	1	2	3	4	5	6	7	8	9	10
							(4)	(4)	(5)	(2)	

Post	0	1	2	3	4	5	6	7	8	9	10
(1)	(1)	(6)	(7)								

Create a safe environment for individuals with disabilities who are included in my community-based physical activity program/activity

Pre	0	1	2	3	4	5	6	7	8	9	10
						(1)			(2)	(6)	(6)

Post	0	1	2	3	4	5	6	7	8	9	10
								(1)	(6)	(8)	

Promote social interactions with peers for individuals with disabilities who are included in my community-based physical activity program

Pre	0	1	2	3	4	5	6	7	8	9	10
					(1)			(2)		(4)	(8)

Post	0	1	2	3	4	5	6	7	8	9	10
								(2)	(1)	(6)	(6)

Manage behaviors of individuals with disabilities who are included in my community-based physical activity program

Pre	0	1	2	3	4	5	6	7	8	9	10
			(1)			(2)	(2)	(2)	(6)	(2)	

Post	0	1	2	3	4	5	6	7	8	9	10
					(1)		(4)	(3)	(5)	(2)	

Modify instructions for individuals with disabilities who are included in my community-based physical activity program

Pre	0	1	2	3	4	5	6	7	8	9	10
					(1)		(2)	(2)	(4)	(6)	

Post	0	1	2	3	4	5	6	7	8	9	10
(3)	(5)	(7)									

Assess the motor skills of individuals with disabilities who are included in my community-based physical activity program

Pre	0	1	2	3	4	5	6	7	8	9	10
		(1)			(1)		(2)	(3)	(3)	(5)	

Post	0	1	2	3	4	5	6	7	8	9	10
(2)	(3)	(5)	(5)								

Modify rules to games for individuals with disabilities who are included in my community-based physical activity program

Pre	0	1	2	3	4	5	6	7	8	9	10
						(1)			(4)	(4)	(6)
Post	0	1	2	3	4	5	6	7	8	9	10
(1)	(1)	(4)	(9)								

Collaborate effectively with other teachers/professionals regarding individuals with disabilities included in my community-based physical activity program

Pre	0	1	2	3	4	5	6	7	8	9	10
		(1)						(4)	(5)	(5)	
Post	0	1	2	3	4	5	6	7	8	9	10
									(6)	(9)	

Motivate individuals with disabilities who are included in my community-based physical activity program

Pre	0	1	2	3	4	5	6	7	8	9	10
							(2)		(2)	(11)	
Post	0	1	2	3	4	5	6	7	8	9	10
(1)			(1)	(4)	(9)						

APPENDIX G:

Methodology: Focus Group Questions

Focus Group Questions

Research Question: To what extent did your engagement in the Empowerment Model's Strategies of Success (SOS) professional development (PD) training modules focused on disability and fitness-related content increase your knowledge, skills, competencies, and self-efficacy supporting adults with disabilities within community fitness facilities?

You've just completed the four Empowerment Model's Strategies of Success (SOS) instructional modules:

- Addressing Challenging Behaviors
- Planning Inclusive Programs
- Modifying Instruction for Inclusiveness
- Accessibility Considerations

Question #1

- In what ways did the "Addressing Challenging Behaviors" SOS instructional module increase your knowledge and confidence related to this subject matter?
- In what ways did the "Planning Inclusive Programs " SOS instructional module increase your knowledge and confidence related to this subject matter?
- In what ways did the "Modifying Instruction for Inclusiveness" SOS instructional module increase your knowledge and confidence related to this subject matter?
- In what ways did the "Accessibility Considerations" SOS instructional module increase your knowledge and confidence related to this subject matter?

Question #2

- What was your opinion or general impression of the disability and fitness-related content embedded within the "Addressing Challenging Behaviors" instructional module?
- What was your opinion or general impression of the disability and fitness-related content embedded within the "Planning Inclusive Programs" instructional module?

- What was your opinion or general impression of the disability and fitness-related content embedded within the "Modifying Instruction for Inclusiveness" instructional module?
- What was your opinion or general impression of the disability and fitness-related content embedded within the "Accessibility Considerations" instructional module?

Question #3

- What are your thoughts about using these instructional modules as part of EPIC's onboarding of new staff?

Question #4

EPIC has not developed or adopted an outline for a Professional Development Policy and Procedural Guidelines or a Training Resource Manual for staff. In developing a comprehensive professional development (PD) training program for all EPIC staff, it is crucial to cover a wide range of content areas to ensure well-rounded and effective training. What are some recommended content areas that PD training for EPIC staff should include in order to secure a knowledgeable and skilled fitness workforce capable of addressing current and future health and wellness challenges for adult members with disabilities?

Question #5

What expectations for staff engagement and access to easily assessable information supporting effective PD training protocols—e.g., financial and personal support, time allocations, personal advancement—should be prioritized and outlined within EPIC's PD Procedural Guidelines and Policies?

Question #6

A Professional Learning Community (PLC) is a method that fosters collaborative learning among colleagues within a particular work environment. It is often used as a way to organize staff into working groups of practice-based professional learning. What experiences do you have working collaboratively as a PLC member in the field of fitness?

Question #7

What influence should EPIC's stakeholders—board members, administrators, staff, members, families and caregivers, and program partners—have in the planning process for developing outlines for the organization's PD Policy, Procedural Guidelines, and Training Resource Manual for staff?

Question # 8

Additional comments

G.1: Focus group feedback

Focus group design and content

Focus group protocols were developed to ensure consistency, inclusivity, and depth of participant input. A semi-structured question guide was used, allowing for open-ended responses while ensuring core topics were addressed. Each session was approximately 45–60 minutes, video- and audio-recorded with consent for analysis. Discussions centered on the following SOS instructional content area modules:

- Addressing Challenging Behaviors
- Planning Inclusive Programs
- Modifying Instruction for Inclusiveness
- Accessibility Considerations

Data analysis approach

To ensure methodological rigor, the transcriptions were read multiple times to gain a holistic understanding of participant responses. A thematic coding framework was developed, combining deductive codes (based on pre-established research questions related to knowledge acquisition and self-efficacy) and inductive codes (emerged organically from the participants' language, experiences, and expressions during the discussions).

The data were then analyzed through thematic analysis, grouping codes into categories and identifying recurring patterns across all three focus groups. This process highlighted similarities and differences in staff responses and perspectives, offering a rich source of qualitative insight.

Language Coding Categories

Participant language and responses were categorized under two overarching dimensions:

- Content Related Language reflecting:
  - Knowledge acquisition
  - Practical instructional application
  - Growth self-efficacy
- Policy and Procedural Language reflecting:
  - Engagement with PD systems and structures
  - Indicators of engagement with professional development structures
  - Implementation strategies.

Emergent Themes

Four key themes emerged from the focus group discussions, forming the foundation for strategic recommendations and continued refinement of EPIC's professional development program:

- Theme 1: Instructional Module Effectiveness
- Theme 2: Collaborative Learning
- Theme 3: Organizational Support Through Structured and Accessible PD Policy, Procedural Guidelines and Staff Resource Manual
- Theme 4: Professional Development Program Oversight and Stakeholder-Centered Input

Theme Insights

Theme 1: Instructional Modules as an Effective Disability-Awareness Professional Development Training Program

Participants reported that the Empowerment Model's Strategies of Success (SOS) instructional modules content expanded their knowledge of disability and increased confidence in their ability to implement adaptive instructional strategies. Across all three focus groups, participants reported either acquiring new knowledge or reinforcing prior understanding related to disability-inclusive instruction. Participants emphasized the need

for both new and experienced fitness staff to have access to the SOS instructional modules, as well as ongoing professional development focused on disability awareness and inclusive fitness practices.

The instructional design of the SOS modules was commended for its effective integration of disability awareness with fitness-specific strategies, enhancing both technical skills and interpersonal competencies vital to delivering inclusive services in community fitness facilities. Participants also highlighted the value of structured, hands-on learning paired with peer collaboration, citing increased confidence and practical readiness as key outcomes.

Theme 2: Individualized and Collaborative Learning Support

Staff consistently valued the opportunity for hands-on learning experiences that translated directly to their daily work. These practical applications increased their confidence, reinforced by their ability to implement inclusive fitness strategies effectively. Participants highlighted the importance of learning environments that mirror real-world scenarios, allowing them to practice and refine adaptive techniques.

In addition to individual skill building, participants emphasized the critical role of ongoing peer support embedded within the SOS farmwork. They advocated for sustained collaborative learning through Professional Learning Communities (PLCs) and similar peer driven models, which foster knowledge exchange, shared problem solving, and professional growth.

Qualitative insights from all three focus groups valued the modules' structured, practical design and the clarity with which instructional content was presented, further enhancing the effectiveness of their learning experience.

Theme 3: Organizational Support Through Structured and Accessible PD Policy, Procedural Guidelines and Resource Manual

Focus group participants consistently highlighted the critical role of institutional support in sustaining meaningful professional development. They emphasized that dedicated training time, financial assistance, and clear advancement pathways are essential for fostering ongoing engagement and effective learning.

The effectiveness of the Strategies of Success (SOS) instructional modules could be significantly amplified when paired with tangible support from supervisors, peer mentors, and leadership. This theme reflects the importance of both structural and cultural elements within EPIC that promote staff investment, continuous learning, and long-term growth.

Participant feedback underscored the critical importance of having clearly defined and easily accessible PD policies and procedural guidelines that directly align with the realities of daily practice. Staff across all experience levels emphasized that PD protocols are transparent, well organized, and grounded in the actual demands of their roles.

Participants also reported that centralized access to a professional development training resource manual enhances meaningful engagement with training opportunities and supports.

Theme 4: Professional Development Program Oversight and Stakeholder-Centered Input

Focus group participants strongly supported the development and implementation of EPIC's professional development model guided by continuous stakeholder engagement. They emphasized the importance of incorporating ongoing feedback from subject matter experts, staff, members, and families, and ensuring that the training content remains relevant, responsive, and aligned with the evolving needs of both practitioners and fitness program members.

Coded Categories Within Themes

The emergent themes and associated coded categories were developed through qualitative analysis of participant feedback gathered during structured focus groups. Each theme represents a core finding about the impact and implementation of the Empowerment Model's SOS modules, while the coded categories provide specific examples of how participant responses were organized and interpreted within those broader themes.

These examples illustrate how participant comments were grouped based on shared patterns of meaning and relevance to professional development goals. In this way, the categories serve as illustrative evidence of the coding process, showing how raw participant statements were coded into meaningful clusters that reflect both knowledge gains and confidence-building outcomes.

Theme 1: Instructional modules serve as an effective disability-awareness professional development program

“The content of each SOS module reinforced what I already knew while also expanding my understanding with new insights.”

— Focus Group Participant

“It provided a practical framework for addressing disability in fitness programs.”

— Focus Group Participant

Category 1: Increase in Professional Knowledge

- Increased knowledge/awareness from the modules’ subject content
- Explained disability terminology
- Explained underlying reasons for challenging behaviors
- Explained how to ensure activities are age- and developmentally appropriate for fitness members
- Explained how to help members with disabilities set goals using goal strategy tools

Category 2: Increase in Professional Confidence

Demonstrated how to address:

- Challenging behaviors by employing de-escalation strategies
- Providing instructional support based on disability status
- Ensuring that programs are inclusive and accessible for all participants
- Modifying games/activities to accommodate member diversity
- Varying prompts/cues (verbal versus tactile, etc.)

Theme 2: Individualized and Collaborative Learning Support

Peer-supported, hands-on professional development through the SOS modules fosters shared learning, builds confidence, and supports fitness staff across experience levels within EPIC CFFs.

Category 1: Peer Collaboration and Shared Expertise

- Peer support embedded within framework
- Peer learning and shared expertise options, e.g., Professional Learning Communities (PLCs)

Category 2: Practical and Hands-On Learning Experiences

- Hands-on learning opportunities
- Modules provided specific practical examples
- Instructional modules are good for inspiring staff creativity/ generating new ideas

Category 3: Training Builds Confidence and Supports Staff Development

- Training was reassuring/ increased confidence
- Good to use these instructional modules for onboarding new staff
- Good to use these instructional modules for experienced staff members having no or limited experience working with adults with disabilities in CFFs

Theme 3: Organizational Support for Professional Growth

Organizational structures, resources, and systems that support continuous professional learning and career development for EPIC Fitness Professionals.

Category 1: Structural Support for Ongoing Training

- Allocated time for training within work day
- Regular training schedules (e.g., quarterly, as needed, yearly)
- Pre- and post-certification adaptive training modules
- Availability of additional instructional training content
- Remote training options

Category 2: Resource-Based Support and Tools

- Centralized reference materials
- Visual aids (e.g., anatomy, equipment)

Category 3: Career Development and Advancement Pathways

- Dedicated financial support and reimbursement protocols
- Training pathways from new to experienced staff
- Clear connection between training and career progression

Theme 4: Professional Development Program Oversight and Stakeholder-Centered Input

Category 1: Inclusive Stakeholder Involvement

- Educators/people with education background should have great influence
- Disability professionals
- Behavioral specialists
- EPIC fitness staff
- Fitness members with disabilities, family members/ caregivers
- EPIC Board Member and administrator

- Legal and Safety professionals
- Stakeholders who care about EPIC

Category 2 : Accountability and Progress Monitoring for PD Training Development and Implementation

- Training modules should have pre and post tests
- Training modules should contain progress monitoring

Summary

The focus group feedback highlighted the effectiveness of the Empowerment Model's SOS training in equipping staff with a strong foundation of practical, inclusive and cost-effective PD training to support adults with disabilities in community fitness settings.

The training was perceived as highly effective in improving knowledge, confidence, and instructional capacity. Participants also emphasized the importance of collaborative learning, organizational support, and stakeholder-informed oversight to ensure that professional development efforts are comprehensive, sustainable, and impactful for all EPIC staff and for adults they support in CFFs.

Insights from these discussions are also shaping the future development of EPIC's PD policy, procedural guidelines, and staff resource training manual.

APPENDIX H:

DRAFT: EPIC PROFESSIONAL DEVELOPMENT POLICY

Board Adoption: TBA

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1. Scope of EPIC's Draft Professional Development Policy

Endless Possibilities in the Community (EPIC) is committed to the professional growth and development of all fitness staff, including personal trainers, exercise specialists, physical therapy assistants, and program administrators.

EPIC's Professional Development (PD) Policy provides a comprehensive framework for training, certification, continuing education, career advancement, and performance evaluation. These guidelines are informed by research highlighting significant gaps in accessibility and staff preparation, underscoring the need for structured training and professional development in community fitness facilities (Rimmer & Rowland, 2008; Rimmer, Riley, Wang, & Rauworth, 2004).

2. Purpose of Professional Development Policy

EPIC's PD Policy is rooted in creating a professional culture that prioritizes disability awareness and fitness-related content. This ensures that all staff are equipped with the knowledge, confidence, and instructional strategies necessary to meet the diverse needs of members with disabilities. Specialized training empowers staff to deliver high-quality, inclusive support, fostering health equity and meaningful community inclusion.

3. Aims of Professional Development Policy

EPIC views PD as essential to achieving:

- Knowledge: Strengthening staff understanding of disability and inclusive fitness practices
- Self-efficacy: Building confidence to provide safe and effective services (Bandura,1997)
- Alignment: Ensuring that personal growth supports organizational mission and goals
- Job Satisfaction: Enhancing engagement through meaningful work
- Career Advancement: Supporting long-term staff development and leadership and retention

4. Instructional Foundations and Forms of Effective Professional Development

Effective PD incorporates core features identified in education and fitness research (Desimone, 2009):

- Content Focus: Relevant knowledge such as disability awareness, inclusive fitness practices, and behavior-specific strategies
- Active Learning: Includes observation, feedback, coaching, and hands-on practice
- Coherence: Alignment with organizational goals and participant needs, grounded in practical application
- Sustained Duration: Distributed over time with a minimum of 20 contact hours per year for deep learning
- Collective Participation: Delivered through professional learning communities (PLCs) to encourage collaborative reflection and growth

5. Job Categories, Certification, and Licensing

Staff must maintain certification/licensure consistent with national or state standards and EPIC guidelines:

- Personal Trainers: Certifications from ACSM/NCHPAD or other EPIC-approved accrediting bodies, agency or funder requirements
- Phys. Therapy Assistants: State of Delaware licensure
- Exercise Specialists: Completion of mandated EPIC, agency or funder requirements

6. Financial Support for Continuing Education

- Reimbursement: Up to $200 annually for certification renewal or continuing education courses with Executive Director (ED) prior approval
- Conference Attendance: EPIC may cover fees for relevant disability and fitness-related conferences that align with annual PD goals, with ED prior approval

7. Professional Development (PD) Performance Reviews and Feedback

7.1 Annual Review Components

All fitness staff will participate in an annual summative performance review conducted by their direct site supervisor or the Executive Director. The annual review will assess:

- Job performance and accountability
- Member health and wellness outcomes
- Engagement in required and optional PD activities

7.2 Ongoing Formative Feedback

Supervisors and the Executive Director will provide regular informal feedback throughout the year to promote continuous learning and reinforce EPIC's commitment to excellence.

8. Mentorship Program

EPIC will implement a structured mentorship program in which experienced staff are paired with new team members. This initiative supports staff acclimation, fosters skill development, and promotes organizational engagement and retention (Rimmer et al., 2004).

9. Career Development, Advancement, and Leadership

EPIC supports upward mobility within the organization through:

- Career Pathways: Leadership development based on outcomes and initiative
- Program Development Opportunities to design innovative program offerings
- Leadership Training: Includes supervision, budgeting, and conflict resolution

10. Evaluation of Professional Development (PD) Programs

10.1 Feedback Collection

Pre and post training evaluations will be administered for all PD activities. Data gathered will be used to assess training quality, inform future content, and guide continuous improvement.

10.2 Effectiveness Measures

Evaluation of PD effectiveness will be based on:

- Measurable gains in staff knowledge, instructional skills, and self-efficacy
- Positive member outcomes, including satisfaction and improvements in health and wellness
- Staff retention rates and completion of individual and organizational PD goals

11. Roles and Responsibilities

Successful implementation of EPIC's PD Policy relies on a clearly defined structure of responsibility and collaboration (Desimone, 2009; Fixsen et al., 2005).

Role	Responsibilities
PD Committee	Comprised of administrative leaders, experienced fitness staff, and stakeholder representatives Reviews annually and approves major revisions to PD policies Ensures policies are in alignment with best practices and member needs Oversees all aspects of PD planning and execution
Executive Director	Ensures staff compliance within PD policy
Site Supervisor	Supports staff access and understanding of PD policies
Staff Member	Complies with required and optional policies Applies polices within daily service delivery Seeks clarity and support to improve practice within PD policy
Board of Directors	Ensures alignment of PD policies within EPIC's strategic direction and regulatory expectations

12. Equity and Accessibility in Professional Development

EPIC is committed to ensuring that all PD opportunities are equitable, inclusive, and accessible to all staff. Training materials will consider diverse learning styles, language access needs, and cultural backgrounds. PD offerings will be made available in multiple formats—including in-person, virtual, and asynchronous—to accommodate diverse schedules and abilities.

13. Policy Review and Revisions

EPIC's PD Policy will be reviewed annually by the PD Committee. Revisions may be prompted by:

- Staff feedback
- Evaluation data
- Organizational or regulatory changes
- All updates require final approval from EPIC's Board of Directors.

14. Acknowledgment

By signing below, I acknowledge that I have read, understood, and agree to adhere to the policies outlined in EPIC's Professional Development Policy, including all expectations related to training, evaluation, and accountability.

Employee Name: ________________________

Signature: ______________________________

Date: __________________________________

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APPENDIX I:

DRAFT: EPIC PROCEDURAL GUIDELINES

Board Adoption TBA

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1. Scope of EPIC's Draft Professional Development (PD) Procedural Guidelines

The Procedural Guidelines are designed to:

- Operationalize EPIC's PD Policy across all fitness staff roles
- Reinforce applied learning and performance feedback
- Establish consistent expectations and continuous improvement structures
- Promote retention and professional growth through embedded coaching and mentoring
- These priorities address documented gaps in staff preparation and structured training within disability and fitness contexts (Rimmer & Rowland, 2008).

*2.1 **Purpose of the Procedural Guidelines***

These Guidelines provide the operational framework for implementing EPIC's Professional Development Policy. They define staff responsibilities, training formats, and ongoing practices that support inclusive service delivery for adults with disabilities. Working in tandem with the overarching PD Policy, they promote high-quality service, safety, and positive member outcomes.

2. Staff Professional Development Training Requirements

EPIC's Executive Director ensures that all new fitness staff complete mandatory orientation and PD training within the first 30 days of employment. This guarantees foundational knowledge needed to deliver safe and effective health and wellness services to adults with disabilities in CFFs.

2.1 Orientation Training Required for Newly Hired Staff

The initial orientation for new fitness staff will cover essential topics within EPIC's:

- PD Policy
- Procedural Guidelines
- Staff Resource Manual

2.2 Annual Professional Development Training Required for All EPIC Staff

The Executive Director is responsible for implementing required and optional PD training. Standardized pre and post training assessments will measure changes in knowledge and self-efficacy (Bandura, 1997). Mandatory PD modules include:

- Planning Inclusive Programs
- Accessibility Considerations
- Modifying Instruction for Inclusiveness
- Addressing Challenging Behaviors

- These modules are grounded in disability-focused instructional frameworks that emphasize applied knowledge transfer and staff competence (Moran, Taliaferro, & Pate, 2014).
- Required Relias/DDDS content includes:
- Abuse, neglect, mistreatment, and injury policy
- HIPAA and confidentiality policy
- CPR and First Aid training
- Challenging behavior intervention (Mandt System)

2.3 EPIC's Optional Professional Development Training

Optional topics may include:

- Disability etiologies
- Communication and collaboration strategies
- Program administration and safety protocols

3. Emerging Fitness Trends

- Virtual fitness
- Inclusive HIIT (High-Intensity Interval Training)

4. Specialized Skills

- Adaptive strength training
- Nutrition
- Biomechanics

5. Staff/Member Interaction Skills

Training in motivational techniques and cultural competency reinforces person-centered practices and supports social inclusion outcomes for members with disabilities (Bandura 1997).

6. Health and Wellness Topics

Content addressing mental health and stress reduction ensures holistic service delivery for participants with disabilities, whose needs span physical, emotional, and behavioral domains (Bandura 1997).

7. Staff Development Training Formats

- Workshops: In-person workshops emphasizing practical, applied learning aligned with real-world demands improve instructional confidence and adaptability (Desimone, 2009).
- Professional Learning Communities (PLCs): Peer-supported PLCs foster collaborative knowledge-sharing and inclusive instructional innovation (Ammah & Hodge, 2006)
- Online Courses: Self-paced accredited online courses allow flexibility while building foundational knowledge (Desimone, 2009).
- Webinars/Seminars: Virtual and in-person expert-led events reinforce staff competence and maintain alignment with industry best practices (Rimmer & Vanderbom, 2016).

8. Financial Support for Training

All staff are required to maintain valid certification or licensure appropriate to their role, as outlined in the EPIC PD Policy (Appendix H). EPIC provides agreed-upon financial support to personal trainers, physical therapy assistants, and exercise specialists to help offset the costs of meeting applicable state and national standards.

Information on financial reimbursement and conference support is detailed in the EPIC PD Policy (Appendix H). Staff are encouraged to consult with the Executive Director for guidance on available supports for continuing education.

9. Roles and Responsibilities

These Procedural Guidelines will be reviewed annually in coordination with the EPIC Professional Development Policy. The PD Committee and Executive Director will use staff feedback, outcome data, and evolving best practices to recommend updates (Desimone, 2009; Fixsen et al., 2005; Guskey, 2002).

PD Committee	• Composed of administrative leaders, experienced fitness staff, and stakeholder representatives • Ensures that Procedural Guidelines are in alignment with best practices and member needs
Executive Director	• Oversees all aspects of PD planning and execution • Ensures staff compliance with required training and protocols
Site Supervisor	• Supports scheduling and access to PD activities for staff • Provides informal coaching, mentoring, and real-time performance feedback
Staff Member	• Completes required and optional PD opportunities • Applies learning in daily service delivery • Seeks support to improve practice and service quality
Board of Directors	• Reviews and approves major revisions to PD Procedural Guidelines • Ensures alignment with EPIC's strategic direction and regulatory expectations

EPIC is committed to fostering a culture of continuous learning and professional excellence. These Procedural Guidelines serve as a living framework to support fitness staff in delivering safe, inclusive, and effective services to adults with disabilities.

As the health and wellness landscape evolves, so too will EPIC's professional development offerings. Ongoing review and updates to these guidelines will ensure alignment with emerging evidence-based practices, regulatory standards, and the unique needs of our diverse membership.

EPIC supports professional growth through mentorship, in which experienced staff members are paired with new hires. Professional Learning Communities also reinforce PD content, accelerate onboarding, and build a culture of collaboration.

Together, we strive to build a more inclusive fitness community, one that empowers every staff member to reach their fullest potential supporting the improved health of adult members with disabilities in inclusive community fitness facilities.

10. Acknowledgment

By signing below, I acknowledge that I have read, understood, and agree to adhere to EPIC's Procedural Guidelines outlined in this Professional Development Procedural Guidelines document.

Employee Name: ____________________________ Date: _________________

Signature: __________________________________

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APPENDIX J:

DRAFT: EPIC STAFF RESOURCE MANUAL

Board Approval TBA

Introduction

Adults with disabilities experience higher rates of sedentary behavior and chronic health conditions compared to the general population (Rimmer et al., 2010). Common challenges include obesity, limited physical activity, and secondary health complications (Lynch et al., 2021). As EPIC fitness professionals, your role is to reduce these risks by promoting safe, regular physical activity, enhancing fitness, and preventing further health decline.

Engagement in physical activity improves functional mobility, helps manage chronic conditions, and enhances overall quality of life (U.S. Department of Health and Human Services [HHS], 2018). By supporting adults with disabilities in developing active routines, you empower them to achieve healthier and more independent lives.

The following draft Professional Development Staff Resource Manual provides EPIC staff with evidence-informed strategies, practical tools, and condition-specific guidance to ensure inclusive, safe, and effective fitness programming for adults with disabilities. Its purpose is to equip fitness professionals with the knowledge and resources

necessary to translate research into practice, foster equity in fitness, and empower participants to reach their fullest potential.

Safety Considerations and Precautions

When supporting adults with disabilities in fitness activities, it is essential to prioritize safety and recognize health-related risks that may require special attention. Certain conditions, such as heart disease, diabetes, osteoporosis, and many others may influence exercise tolerance and program design. To ensure safe participation:

- Screen for medical conditions: Identify health concerns that may affect exercise capacity and consult with healthcare providers when appropriate before beginning a program (American College of Sports Medicine [ACSM], 2012).
- Begin gradually: Introduce low-impact, low-intensity activities first, and progress slowly as the individual demonstrates comfort, confidence, and capacity (HHS, 2018).
- Monitor closely: Observe for signs of fatigue, discomfort, or overexertion during each session, and modify intensity, duration, or activity type as needed (World Health Organization (WHO), 2010).
- Encourage communication: Invite participants to share feedback about pain, energy levels, or challenges so adjustments can be made promptly (ACSM, 2012).
- Prepare for emergencies: Ensure you are trained in CPR, first aid, and the use of adaptive or assistive equipment, and maintain quick access to emergency contacts and medical protocols (ACSM, 2012).

Key Concepts for Working with Adults with Disabilities

Inclusive fitness requires adapting programs to meet individual needs while addressing fundamental health and wellness concepts:

- Physical Activity: “Physical activity is defined as any bodily movement produced by skeletal muscles that results in energy expenditure” (Caspersen et al., 1985, p. 126). For adults with disabilities, this may include adapted routines such as seated or assisted exercises.
- Exercise: A structured subset of physical activity that is planned and goal-oriented. Effective programs focus on improving cardiovascular endurance, strength, balance, or flexibility, while remaining enjoyable and sustainable (ACSM, 2012).

- Wellness: Encompasses more than physical health, extending to mental, emotional, and social well-being. Supportive environments can increase motivation and participation (Richardson, 2017).
- Health Promotion: Strategies that help individuals gain control over their health, including education, community support, and empowerment in areas such as nutrition and physical activity (WHO, 2010).
- Prevention: Proactive approaches that reduce risks of secondary conditions (e.g., diabetes, cardiovascular disease). Fitness professionals play an essential role in sustaining function and independence (Rimmer & Vanderbom, 2016; Rimmer et al., 2010).

Practical Planning Strategies for Fitness Staff

- Assess Individual Needs: Begin with a thorough assessment of health status, goals, and activity levels. Individualized planning improves safety and effectiveness (Bodde & Seo, 2009).
- Create Personalized Exercise Plans: Adapt programs to align with functional abilities and medical conditions. For example, aquatic therapy is recommended for individuals with arthritis to improve function and reduce pain (Hochberg et al., 2012).
- Use FITTE or SMART Principles: Frameworks such as FITTE (Frequency, Intensity, Time, Type, Enjoyment) and SMART (Specific, Measurable, Achievable, Relevant, Time-bound) improve goal setting and accountability.
- Strength Training: Essential for mobility, bone health, and independence. For conditions such as spinal cord injury or cerebral palsy, begin with light resistance and progress gradually (Martin Ginis et al., 2021; Ditor & Hicks, 2005). Proper form and supervision are critical (ACSM, 2012).
- Aerobic Exercise: Low-impact activities enhance endurance and heart health, with the goal of achieving at least 150 minutes per week as tolerated (HHS, 2018).
- Encourage Social Engagement: Group-based classes foster inclusion, motivation, and reduced isolation (Healy et al., 2018).
- Promote an Inclusive Environment: Supportive atmospheres improve confidence and adherence to exercise routines (Bandura, 1997).

With these core principles established, the next section provides evidence-informed strategies tailored to specific conditions, offering staff practical guidance for supporting adults with disabilities in community fitness settings.

Fitness and Wellness Approaches for Staff: Condition-Specific Strategies to Support Adults with Disabilities

Fitness and wellness programs should be individualized to reflect the unique needs of adults with disabilities. The strategies below provide condition-specific approaches that staff can implement in community fitness facilities to support inclusion and foster improved health outcomes.

Mobility Impairments

- Strength Training: Adapt resistance routines for seated or supported use to improve upper-body strength (Ditor & Hicks, 2005; Martin Ginis et al., 2021).
- Seated Aerobic Options: Use equipment such as arm ergometers or seated steppers to improve cardiovascular health (Rimmer & Vanderbom, 2016; HHS, 2018).
- Balance and Stability: Core strengthening and resistance band exercises reduce fall risk and improve posture (Healy et al., 2018; ACSM, 2012).
- Flexibility Training: Stretching helps reduce spasticity and prevent contractures (National Institute of Neurological Disorders and Stroke [NINDS], 2020; ACSM, 2012).
- Adaptive Equipment: Tools such as standing frames, walking aids, or adaptive bicycles enhance participation (Richardson, 2017).

Intellectual and Developmental Disabilities (IDD)

- Structured Routines: Predictable schedules build comfort and adherence (Obrusnikova et al., 2023; Moran & Block, 2010).
- Skill Development: Activities targeting balance, agility, and coordination promote independence (Lynch et al., 2021).
- Group-Based Programs: Social settings encourage inclusion and peer learning (Healy et al., 2018; Richardson, 2017).
- Instructional Strategies: Use visuals, simple communication, and step-by-step guidance (Obrusnikova et al., 2023; Rimmer et al., 2010).
- Behavioral Supports: Positive reinforcement strengthens participation, confidence and empowerment (Bandura, 1997; Zimmerman, 1995).

Sensory Impairments (Hearing & Vision)

- For Hearing Impairments: Incorporate sign language, visual demonstrations, or written instructions
- For Vision Impairments: Use tactile markers, verbal cues, and safe, consistent layouts
- Peer Support: Pairing participants enhances orientation and motivation (Healy et al., 2018).
- Accessible Equipment: Adapted and user-friendly equipment improves usability and participation for people with disabilities (Bodde & Seo, 2009).

- Safety: Ensure barrier-free environments and provide clear, consistent supervision (WHO, 2010).

Arthritis, Multiple Sclerosis (MS), and Fibromyalgia

- Low-Impact Cardio: Swimming, cycling, or water aerobics reduce stress on joints and improve mobility (Busch et al., 2011; Hochberg et al., 2012).
- Energy Conservation: Shorter sessions with built-in rest breaks help manage fatigue and support participation (Busch et al., 2011).
- Therapeutic Modalities: Heat or cold applications before or after exercise may help manage pain and improve comfort (ACSM, 2012).

Cardiovascular Disease & Stroke

- Aerobic Exercise: Moderate-intensity activities (e.g., walking, cycling, swimming) strengthen heart function and improve overall cardiovascular health (ACSM, 2012; (HHS, 2018).
- Strength Training: Resistance bands or light weights help maintain strength while minimizing cardiovascular strain (ACSM, 2012; Ditor & Hicks, 2005).
- Stroke Recovery: Balance and gait exercises support rehabilitation and independence (Billinger et al., 2014).

Psychiatric and Mental Health Conditions

- Stress Management: Practices such as yoga, Tai Chi, and meditation support emotional regulation (Mikkelsen et al., 2017).
- Low-Pressure Activities: Walking groups or swimming encourage social connection and reduce isolation (Healy et al., 2018).
- Routine and Structure: Consistency in scheduling enhances engagement (Bandura, 1997).

Reimbursement and Program Accessibility

In some cases, State of Delaware funding agencies, insurance or private payment may cover health promotion and fitness programs for individuals with disabilities. Be familiar with the reimbursement policies at your agency or facility and ensure that programs are accessible to all members, including those with disabilities. Collaborate with fitness and medical professionals to ensure that each participant receives the appropriate level of care and support.

Empowering Inclusive Fitness Through Individualized Support

This staff resource manual provides a practical, evidence-based framework for supporting adults with disabilities in community fitness settings. By tailoring programs to individual needs, applying condition-specific strategies, and fostering inclusive environments, fitness professionals can advance both health and independence.

These practices not only improve individual outcomes but also align with EPIC's mission of equity in health and wellness. With leadership support, this manual reinforces EPIC's commitment to building a sustainable, inclusive professional development system that enables all participants to thrive.

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