



# Undergraduate Journal

## of Service Learning & Community-Based Research

### **Community Adult Fitness: The Opportunity to Learn, Help Others, and Confirm my Career Path**

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As a recent graduate in Integrative Physiology & Health Science (IPHS) from Alma College, I have just started a job as a Patient Care Tech at Johns Hopkins All Children's Hospital in St. Petersburg, Florida. Since graduation, I have taken time to reflect on my college education, and I am beginning to more fully appreciate all the experiences that have prepared me for my current role at the hospital. In this narrative, I describe a community-engaged class, known as the Community Adult Fitness class. In this class, we served as exercise leaders, providing small-group exercise training to individuals in the local community who had a chronic disease or were of low-income status. While lack of physical activity is a problem that burdens the health of many in the United States, individuals older in age, who have one or more chronic diseases, or are of a low-income status are particularly negatively affected by not being active enough. The Community Adult Fitness class at Alma College provided access to important health resources in these populations while providing high-impact learning experiences for Alma College students.

In this reflection, I first describe the purpose and setup of the Community Adult Fitness class, followed by data we collected showing the positive health changes seen by community members who sought exercise training assistance by the students in the class. Then, I discuss essential lessons I learned throughout this program, the benefits I experienced from being in the class and my perception of the benefits to the community members. Finally, I explain how these experiences may impact my work moving forward.

A chief purpose of the Community Adult Fitness class was to introduce physical activity to low-income community members. Additional goals consisted of helping the community members grow and feel confident in the exercises they will be performing and feel comfortable and willing to push themselves when applicable. We also strived to have the participants enjoy the exercises they were doing and enjoy how they felt during and after physical activity. Ideally, we hoped that physical activity could serve as a small constant in their life, especially with the uncertainties introduced by COVID-19.

The Community Adult Fitness class was developed to allow students to work with authentic individuals in a clinical setting, creating an atmosphere that in some ways emulates situations that might be encountered in many of the students' ultimate career paths such as Primary Care Physician, Physical Therapist, Physician Assistant, or Personal Trainer. We worked in teams of two for the class to create and adjust fitness plans for community members of Gratiot County, Michigan, who had self-referred as needing/wanting to participate in an exercise program. As a prescreening tool, each participant completed a health history questionnaire that stated their reasons for wanting to become more active. Many of those reasons were weight loss, increased mobility, increased strength in daily activities, and increased social interactions during

the pandemic. These were given priority when creating the fitness plans for each participant. The fitness plans included a warm-up and cool-down, along with the main focus being cardio and strength training. In addition to meeting participant goals, we (the students) set secondary goals for the participants based on the health needs identified after the baseline fitness assessment.

Another purpose of this class was to measure how effective we were at helping the participants meet or make progress towards their goals, using concrete data. Measurements that we specifically looked at were daily physical activity - measured with an accelerometer wrist band, weight loss – measured with an at-home scale, cardio/strength endurance and flexibility – measured with six reliable and validated exercise tests, and mental health – measured with three mental health surveys. These measurements were taken at the beginning of the program and again at the very end of the 12-week program.

Community Adult Fitness is a great learning opportunity for the Alma College students; the 2021 class included eight students. The class intended to incorporate a significant community engagement element. Access to health and wellness opportunities is limited in Mid-Michigan, and the pandemic exacerbated these problems. With this in mind, this class served as a way to engage with and support individuals of a community, Gratiot County, Michigan, with low-income status and/or chronic disease (e. g., obesity, diabetes, thyroid issues, or mental health conditions). Additionally, working with community individuals was meant to introduce the students to real-world situations with “clients” and thereby enhance their educational experience.

For class, we met with the professor once a week in person, with a virtual option if needed. We spent the first several weeks reviewing principles of Exercise Prescription and Fitness Assessment, which had been covered in the prerequisite class and reviewed the participants’ self-reported health history questionnaires. We particularly looked at the reasons each individual wanted to be physically active, modifications and limitations the participants had for physical activity, and medications that could potentially affect the participants’ capabilities. All of these questionnaires were reviewed as a class. We then created baseline fitness plans, approved by the professor, who had a Certified Clinical Exercise Physiologist certification from the American College of Sports Medicine. Each fitness plan was based on a combination of the participant’s goals and the students’ decisions about exercises to focus on or avoid based on those goals or health needs.

Due to COVID-19 restrictions on access to on-campus facilities, all interactions with the community members were completely virtual through Microsoft Teams. The participants were given a yoga mat, 2-10 lb. free weights, and resistance bands of varying resistances through a contactless delivery. The students were in groups of two and led 2-4 community members through a one-hour workout twice a week for 12 weeks. Warm-ups focused on elevating the heart rate, stretching the muscles that would be strenuously used, or both. Cardio training mainly consisted of body-weight movements for short increments (e.g., high knees, butt kickers, shuffles, arm circles). Strength training consisted of light free-weight exercises, body-weight exercises, and resistance band exercises focused on the major upper body muscles, lower body muscles, and core (e.g., arm curls, leg lifts, lateral and frontal arm raises, squats, planks, side bends). If needed, exercises could be modified to meet the participants’ fitness and comfort levels.

Students still met with the professor once a week for the Community Adult Fitness class throughout the training. It was a vital part of the class, as we gave brief overviews on how the training sessions went the previous week. Each group discussed which participants attended, how the participants were feeling, and any complaints or questions from the participants or students. Many of the complaints were about new health issues the participants were experiencing or exercises that caused unusual pain. The professor and the rest of the class, took time to create a plan to resolve the complaints or questions to improve the subsequent exercise sessions.

Along with solving those problems, each group discussed and concluded whether or not it was safe to increase the intensity of the workouts. These changes were subtle and not all at once. No more than one or two changes would occur in the same week. These gradual changes allowed for continual growth in strength and endurance for each individual while minimizing the risk of injury. As their body started to adapt to the movements and muscles began to strengthen, it allowed for an increase in resistance, sets, or repetitions. Other examples of these small changes included decreased time spent during a rest period or increased time spent while performing the exercise. In this way, participants could continue pushing and improving their fitness throughout the semester. We also encouraged participants to walk or do some other activity on their own time as our training sessions were not enough to meet governmental recommendations to exercise at least 150 minutes per week.

There were eight participants (seven females) who we trained as part of the class. As stated before, health-related fitness tests (body composition, cardiorespiratory endurance, muscular endurance, flexibility), mental health (three surveys), and physical activity (wrist-worn accelerometer) were measured at both the baseline and post-intervention. To better assess if the fitness program was helping our participants, we found a control group of similar age to our participants who were willing to participate in the baseline and post-program fitness testing but not in the exercise program.

Our fitness program yielded large fitness and health improvements for the participants. We had an adherence rate of 72.9%, which was very rewarding for the Community Adult Fitness class and made exercise sessions fun to teach. This meant that the participants showed effort in attending the sessions, wanted to come back the following week, and were getting something valuable out of the workout sessions. Every participant in the intervention group lost weight, losing on average 3.1 kg with an average 1.2 kg/m<sup>2</sup> decrease in body mass index. This outcome was especially meaningful, participants had indicated weight loss as a primary reason for wanting to join this program. This outcome indicated that we were successful in helping the participants address this goal.

In contrast, the control group had no change in body weight. On average, the intervention group improved their scores on five out of the six fitness tests and in their mental health. It should be noted that the control group also made some improvements in their fitness and mental health. This program started in January and ended in April. With that in mind, nicer weather and/or availability of the COVID-19 vaccine may have allowed the participants more opportunities to be active and may have improved their outlook in the near future. However,

health and fitness improvements in the group that completed the fitness program exceeded improvements compared to the control group.

Many factors can play a role in why we had such a successful outcome. For example, participants were entered in a drawing every time they attended a session for a chance to win a single \$10 gift card to a local grocery store every week. This gave the participants a small incentive to attend each session and was a low-cost way to incentivize participation in the exercise sessions. More importantly, I believe the most significant factor was the relationships that were symbiotically created between the students and the participants. The students, including me, had the privilege to give our time and knowledge to help benefit each participant's physical fitness and overall health. In return, the participants voluntarily gave their time and efforts to help us, the students, gain experience in a clinical setting. Both parties were committed to each other and the school, Alma College, to create an educational and beneficial experience for everyone involved.

The last notable outcome we discovered is that many of the participants did not continue to exercise on their own time during or after completion of the program. We discovered this through the accelerometer data and surveys the participants completed. The accelerometer data showed that the intervention group increased their daily step count on days that they had their workout sessions but were relatively sedentary outside of their sessions. On the days they had no planned workout sessions, their step count decreased dramatically. Additionally, following the completion of the program, most participants stopped engaging in planned exercise. These findings were initially very disheartening. A This class aimed to educate and motivate these participants to feel confident and comfortable to exercise safely on their own; unfortunately, sustained activity was not reflected in the data. Despite these results, it was encouraging to see that the class positively impacted each of the participants during the allotted sessions. Furthermore, this was a valuable learning experience for the students, seeing that continual programs might be necessary to support sustained lifestyle changes in this population.

The Community Adult Fitness class was so much more than learning how to prescribe fitness plans to community members lacking physical activity. We quickly learned how valuable it was to build connections, trust and confidence between the participants and students. Finding a common ground with the participants allowed a relationship to form, connections, trust, and confidence became evident in both the participants and the students. Additionally, we gained experiences and insight into the importance of listening to the participants, accountability, communication skills, and learning how to make adjustments and adaptations in real-time. The connections and trust that were made were mutual. I was excited to log onto the session and meet with my participants each week. I was eager to tell them about my week and ask about their week and upcoming plans.

When I entered into my third year at Alma College, I heard a lot about this class and thought it would be an invaluable experience due to the opportunity to work with real people with real health needs. Since I was four years old, I have played soccer and had the chance to play for the women's varsity team at Alma College. I have been very involved in physical activity and strength training, but I did not feel like I was at all qualified to prescribe and lead fitness plans. Dr. Montoye, the Community Adult Fitness class professor, reached out to me,

encouraging me to take the course. After further discussion, I enrolled in the class with a lot of hesitation as to whether I knew enough about exercise training to be able to lead someone through a training program.

From the beginning of the class, I began to trust my ability to understand and prescribe a fitness program for individuals of low fitness levels. The class started with a few weeks of review, which was sufficient for me to feel confident enough to know I was fit for this class. It was not until the second or third session with my participants that I could truly enjoy this class because they helped me trust how much knowledge I still retained from previous classes at Alma College. I was leading an exercise class with a plan that I created. I was answering questions that the participants had, and as I got to know the participants on a more personal level, I was adjusting the workouts to fit the participants. Given my background in athletics and exercise physiology-focused classes background, I mistakenly assumed that everyone knew how to perform basic exercises. Not until I started this class did I realize how little experience some participants had with exercise; for example, some of our participants had never used a treadmill before. It did not take long to become clear to me how much I had learned about training for health and fitness, and I began to feel confident that I really could help the community participants. As an individual with an empathetic heart, I found it very easy to place myself in the participants' shoes. With any occupation, it is vital to keep an open mind about people and things and be aware of the backgrounds of your peers and clients. As a Physician Assistant, I will be able to directly offer to every patient I encounter. I will always strive to explain diagnoses, fitness plans, or plans of action in a way that patients easily understand.

As my confidence grew, I realized how valuable it was to create relationships with my participants, especially when COVID-19 shocked the world. It affected the population we led through exercise training dramatically. Many of them lost their entire social aspect of life. Activities outside of their home were limited, routines were lost, and feelings of loneliness were widespread. Community Adult Fitness was a chance to engage in a social event with members and students of the same community. In each session, we were building relationships, sometimes without even realizing it. Many of the sessions started with updates on life and events from the past week. The sense was that the participants knew most of us were athletes and asked about our games and what we were studying at school. The participants wanted to help us, just like we helped them. They knew how beneficial this class was to us students and wanted to support us students as much as possible. It was so inspiring to see that we built a relationship in such a short period with the participants who were once strangers to us. They trusted us from the start and believed in us before we even had the chance to believe in ourselves. Some of the participants even supported us students at our college sporting events as pandemic restrictions eased. They knew that we were doing our best to serve them, and they wanted to do it in return.

Although not directly measured, personal interactions and observations with the participants suggest that their confidence grew just as much as mine. For example, sit-to-stands are a common exercise performed during the class. It is a simple exercise, which starts by sitting on the edge of a stable chair and crossing hands over the chest while standing straight up. One participant was so excited to tell me how much she had improved. She had been in this program for several years, and when she started, she was not able to do any sit-to-stands without assistance. The year I worked with her in class, she was proudly able to do 12 sit-to-stands in one

minute, unassisted. The smile on her face was priceless, and it was incredibly rewarding to be a part of that conversation. Another gratifying example of confidence is from a chair-bound participant. She had also been in this program for several years. She started this program with a stubborn, low-confidence mindset. She would not try anything new and made it very difficult to create an exercise plan. The year I joined the class, I was assigned to her. She became less afraid to fail, which was beyond humbling to me. She trusted me to push her to improve, to motivate her when she was having a rough day, and her mind-set completely changed. I made a positive impact in these individuals' lives, and through this experience, I have become even more excited to be able to do this in my future career as a Physician Assistant.

Listening to my participants was part of building connections and trust. No training day was the same because various factors affected the participants differently. One participant I worked with went to the chiropractor every week to be realigned. Each time we met for our workout session, she felt different. Somedays, her back was very sore, other days she could barely move her hips, and sometimes, she had shoulder pain in only one shoulder. It was important for me to listen to what was hurting and to adjust the exercises accordingly. Some days she hurt more than other days, so I would not push her as hard as I would on the days she was not feeling any pain. This skill was something I know I want to take with me as I become a Physician Assistant. As I will have patients coming into my office with pain, irritation, and aches, I need to make sure I listen first. They know their bodies better than I do, and it is important for me to hear what they have to say before I start diagnosing. The Community Adult Fitness class was a great way to learn and practice that skill.

After taking this class, I am reassured that I am on the right career path to become a Physician Assistant. I was constantly reminded how much I love serving others, creating connections, and giving when I have the knowledge and time. The relationships built trust between the students and participants, which developed so much confidence in the participants. I trusted that my participants would log on each time and give their best in every exercise. I trusted that my participants would tell me if something was too hard or too easy. In return, they trusted me with each activity. They trusted that I knew how many repetitions to do, how many sets to do, how much weight to add, and what exercises to prescribe to them. The trust that was mutually created evolved into confidence for both the participants and the students throughout the class.

Another important takeaway from this class was the value of accountability. The participants exercised in groups of 2-4 people. All the participants were at different physical activity levels. Some were very limited, while others were only slightly limited in what they could or could not do. However, the group atmosphere gave each participant a sense of comfort, yet a sense of drive. I believe the feeling of comfort came from knowing that they were not alone when it came to being physically unfit. People in their community and a similar life situation were going through the same process as themselves. I believe the sense of drive came from the friendly competition and accountability from the others in the group. Watching someone else do something they could not yet do often made them want to get stronger and more fit so that they could eventually do the same thing. Having someone else participate in the exercises also added a sense of accountability. It increased the motivation to attend the sessions, properly do the exercises, finish all the repetitions of the exercises, and so on. I was initially unsure at first about

how the groups were going to work and be successful, but they exceeded my expectations and worked for the good. The atmosphere of being part of a group is something I can see myself using as a future Physician Assistant. Whether that be educational classes for different groups, or creating accountability groups, I have now seen the benefits of small groups of people in similar situations or with similar goals.

Lastly, I learned how beneficial communication was for the sessions to run smoothly. There were a lot of barriers we had to face, especially with technology. Everything was done virtually through Microsoft Teams. We had to do a lot more explaining through words rather than demonstrations. For example, one participant joined each session through her phone (rather than a computer or tablet), which was already more difficult because it had a small screen, making it hard to see the demonstrations from a distance. On top of that, her volume did not work very well. The only way she could hear us was by holding the phone directly up to her ear, which meant she could no longer see us demonstrating the workout as we were explaining it. My student partner and I worked together to try to complete the exercises with her and learning how to improvise on the spot. We started by simply explaining the activity to her, so that she could hear it. We then had her put the phone down as one of us demonstrated how to complete the exercise. We then paused to make sure she had no questions before we started. Once she was ready, we used hand motions to start and stop each exercise. Luckily this only happened one time to us, but it was a learning curve. Many of the other barriers were internet connection issues, the participants not being able to find the Microsoft Teams invitation, and finding ways to switch up the workouts just enough to make them not seem so repetitive while having limited movements that can be done at home with minimal space and equipment. This class mimicked what I would expect to encounter in the real world as a Physician Assistant. Not everyone is going to have access to the same things, and I will have to improvise and communicate to fulfill each patient's needs and desires. I am very grateful to have had the opportunity to participate in a class that has begun to teach me the importance of communication and allow me to practice and refine my communication with a variety of individuals.

After reflection, I have been able to see the growth I made as a student from the Community Adult Fitness class, and I am very excited to take what I have learned and use it in the workforce. Getting to serve others through a community-engaged learning experience, whether through class, internship, or other activity, is something I would strongly recommend for other students to pursue as part of their college experience.

The Community Adult Fitness Class resulted in positive physical outcomes for the population we worked with. Every participant lost weight and gained muscular strength in many of their everyday activities. As the exercise sessions progressed, though it was never measured, we witnessed the participants gain confidence. The opportunity to enroll in this class is something for which I am very thankful and would recommend any student to partake in a community-engaged class. I learned specific skills, both tangible and intangible most effectively by working outside of a typical classroom. I will use the skills I learned and carry them with me throughout every job I encounter. I may not be prescribing exercise plans in my future career, but I will always encounter patients, coworkers, and peers. I have learned that I know more than I give myself credit for and that it is crucial to be confident in and trust what I am doing, so that I can focus on other important aspects of the relationships being built. I have learned that trust is a

two-way street. It is the foundation of authentic relationships, and I have to be willing to trust my patients if I want them to trust me. I have also learned that listening skills are just as important as communication skills. Lastly, I have learned that things do not usually go as planned, and I must always be ready to adjust and change something the moment. I have made a direct positive impact on the participants I worked with, and it has been so meaningful. I joined the health field to meet the needs of others, and this class has reassured me that I am on the right path. It has also reassured me that my passion is to serve and the feeling of helping others is rewarding to me. This class prepared me for my future, and it made me a better student, a better future Physician Assistant, and a better person.