### CASESTUDY

## Sagewood Integrates Biodex Balance System SD into Award-Winning Fitness Center... Keeping Seniors Young & Fall Resistant.

### Sagewood





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Kimberly Morris, head of Sagewood's wellness center, works with a resident using the Biodex Balance System as part of an initial orientation to develop a wellness program specific to his needs and capabilities.

#### Sagewood

Sagewood and its associated Acacia Health Center constitute Life Care Services LLC's continuing-care living community in north Phoenix, developed to meet the wide range needs of today's active seniors. One of Sagewood's highlights is its HealthyLife Services program, which includes classes, seminars and clinics on fitness, nutrition, active living and well being. Acacia offers skilled nursing care for Sagewood residents who might need short-term inpatient rehabilitation following, for example, total knee replacement. And if they eventually require long-term care, Acacia offers needed services.

Heading Sagewood's wellness center is Kimberly Morris, a fitness specialist from the National Institute for Fitness and Sport (NIFS) with a degree in kinesiology. Sagewood contracts Kimberly through NIFS to manage and provide a variety of fitness services and programming to the residents of the community. Her prior experience included helping post-rehab surgical patients continue self-directed exercise programs, and appearing on local television for her "Wednesday Workouts" segments. The affection Sagewood residents feel toward Ms. Morris is demonstrated by one of her loyal clients, Bob Burns, who waited after exercising to tell the Biodex interviewer that she won the BEST "teaching" award from NIFS for the development and implementation of the Balance Challenge.

**Kimberly Morris:** As the fitness specialist, my responsibility is to assist our independent living residents in maintaining a healthy lifestyle. Those residents range in age from 62 through 93. Due to their vitality, I would categorize most residents as having an effective age ten to 15 years younger. More than 88% of them are actively participating in one or more of our HealthyLife programs.

All new residents are required to go through an orientation in the fitness center, so I can learn about their health history and determine any special needs the resident may have. After the orientation, we set up an exercise prescription appointment to identify what the resident may want to accomplish with their wellness lifestyle. At this appointment; we discuss, in detail, any musculoskeletal issues we may need to design a program around. If we tailor a program specifically to meet their needs, they are more likely to stick with it.

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At that time, I also offer them our classes, which range from balance to strengthening, yoga and Tai Chi. We also offer different incentive programs, and wellness lectures about physical activity and nutrition.

One of the programs that I have designed around the Biodex Balance System is our eight-week Balance Challenge.

# Q. When you screen people on the Balance System, do you find a range of balance skills – and if you do, what might you expect to find?

**Morris:** With the age population at Sagewood, between 80 to 90% have some balance issues or Balance Challenges. They may not be experiencing falls right now; but when you put them on the Balance System and compare their performance to age-matched norms, you may find many on the edge of a problem and just haven't fallen yet.



Kim assesses balance issues with a client prior to starting her on the eight-week Balance Challenge. The pre- and post-testing data from the Balance System is an important component in the development of the Challenge.

#### Q. Assuming no serious issues, like active falling, do you start them on a program here in the wellness center, in order to improve their ankle strength in response to Balance Challenges?

**Morris:** Yes, I do. In addition to the Balance System, we have other equipment and exercises they do, both with me and on their own.

Prior to testing, some residents have stated that they were not aware that they had a potential risk for a fall. In fact, it was very eye opening for them to learn that they are at risk when getting their results from the Biodex System. Participants were very pleased to see their pre- and post-test results after completing the Balance Challenge.

The residents really like the Balance System. It's not unusual for one to come up to me and say, "Hey Kim, I really like that balance machine. I believe it's the best piece of equipment in your fitness center." I have several clients that use it four or more times a week.

It fits perfectly into a program of traditional techniques that I use in balance development classes, and in our senior fitness test. The technology is an attractive addition to our overall balance programming.

## Q. Do you allow residents to go on the Balance System by themselves?

Morris: Yes.

### Q. Do they unlock the static platform and go into the dynamic mode by themselves?

**Morris:** Some of them do, yes. However, I show them only the static mode and tell them that when they get to a certain percentage or a certain score, they should request that I reassess them. If I feel they are ready, I will help them start the more challenging dynamic mode.

### Q. How do you handle residents with more serious balance issues?

**Morris:** We have physical therapists in our Acacia Health Center to whom I can refer those residents. If I see a potentially serious issue then I encourage residents to let their physician know that I feel that they need additional assistance. In addition to physical therapy, we also have a nurse practitioner on-site, an RN health care navigator who helps the residents stay healthy and independent.

We have residents here that use the Balance System after they have had a hip or knee replacement. I work closely with physical therapists in guiding them on how to use the Balance System after their acute recovery.

No matter what their capabilities, I recommend all residents come to our balance classes. We have balance classes, strength classes, Tai Chi and yoga classes. And then I also highly encourage them to take advantage of our fitness center.

#### Q. Facilities like Sagewood probably share their resident's determination to avoid falls that could sacrifice the resident's independence. A fall and broken hip could result in the resident moving to a different kind of facility.

**Morris:** That's a fair statement. I've been here at Sagewood since it opened in January 2010, and quickly discovered that even our high-functioning residents have a fear of falling. Some volunteered that they noticed their leg strength deteriorating. Fear of falling and declining leg strength are two potential precursors to a fall.

I was determined to establish a wellness-center program that would maintain, or increase their strength, confidence and balance. While developing that program, I explored the testing and programming options on the Biodex Balance System. I immediately recognized that it could give hard pre- and post-testing data. I could incorporate the data into other exercises that assist residents in building lower body strength, and decreasing risk for a fall. That testing data was important to the development of our eight-week Balance Challenge.

#### Q. In addition to the Balance System, what other equipment do you use once you discover that someone has balance issues?

**Morris:** Our fitness center has cardiovascular equipment – treadmills, upright and semi-recumbent bikes and an elliptical trainer. For some residents with balance issues, we also use a variety of strength equipment or body weight exercises to help improve lower body strength.

### Q. Does arthritis impact residents' ability to work on the Balance System?

**Morris:** A lot of residents have arthritis in the hips and knees. However, I feel that the Balance System has helped their arthritis because it requires them to build up their endurance to stand. When you build up that endurance, your pain tolerance is higher, so they feel their arthritis less as they use the Balance System.

# Q. If you see somebody has a balance issue, and you start training with the Balance System and other equipment, and how often do you reevaluate them?

**Morris:** It depends on the resident, but I highly encourage them to continue working out on the Balance System, because, as I tell them, "Your score isn't good, bad, right, or wrong; it's just where you are. We can maintain or improve where you are."

My goal of course, is to improve where they are, but it is a continuous process because if you don't use it, you lose it. I always try to assist them in keeping their program fresh and new. I challenge them to seek out different balance exercises or challenge their balance while they are doing their strength training exercises, such as standing on a foam pad while they're doing bicep curls or rows.

I like to evaluate them every eight weeks because that is long enough to see results, but it is short enough time to show them a significant change.

#### Q. Describe your eight-week "Balance Challenge."

**Morris:** The Sagewood eight-week Balance Challenge utilizes the Biodex Balance System for pre- and post-testing as well as for balance training games. The Challenge also incorporates individualized instruction and participation in balance classes.

We had 17 residents for our first challenge, because we were a new community. Recently, there have been about 30 participants in the program. We have another session of the program coming soon and I am expecting a large turnout.

### Q. Which Balance System tests and exercises do you find most useful?

**Morris:** One of the most useful is the postural stability test. It has been key to showing the residents how they stand and while allowing me to see how they stand and hold their weight.



Kim works with a client one-on-one to keep his training program fresh and new.

While on the Balance System, I may discover that an individual may stand excessively forward and to the right. Upon questioning, I may discover they had a left hip or knee replacement; therefore, I will give the individual Balance System exercises that encourage them to stand with equal amounts of weight on the right and left leg.

I also see a lot of arthritis. I had a resident come to me last week with this observation, "I think I know why I hold on the right side – because I have a lot more arthritis in that left side." I have been working with her on the Balance System to increase her pain tolerance and increase her endurance on the left side, using weight-shifting exercises. We set up the Balance System in its postural stabilitytraining mode, to primarily train the left side more than the right.

This training is very beneficial for endurance and I reinforce it in our balance classes. When we first started, we did one or two exercises on each leg. Now we are up to four exercise on each leg in a period of eight weeks.

My passion is to show active older adults that they can still maintain and improve their balance, decrease their risk for falls, increase their range of motion and strength, reduce the risk for osteoporosis, and take care of their heart through physical exercise and wellness while still maintaining their independence.

I am very interactive with the residents both in a group setting and one-on-one. I make sure they know I am here to meet their needs. That is important to any successful programming. I think that is what sets our program apart from others. Yes, we have 88% participation in the fitness center and I am proud of it. However, I still want to know what I can do to reach out to the other 12%.

### Q. With all that enthusiasm, do the residents ever help each other?

**Morris:** The residents do help each other, but I am always monitoring, because safety is the first priority in the fitness center. However, I am only here Monday thru Friday, 7:30am to 3:30pm. And so, I ask my top performers, like Mr. Burns, to keep an eye out for anyone who looks like they need additional assistance.

During our second eight-week Balance Challenge, when participation jumped from 17 to 30, Mr. Burns had a group of residents he was teaching how to use the Biodex Balance System. He is a retired professional with a lot of people and teaching skills. I do request that he tell any residents with special questions to come to me. We are very safety conscious. I will stop a class if I see somebody with their shoes untied. I will have everybody look down and tighten their laces.

### Q. How do you calibrate your exercise program to a wide range of senior fitness?

**Morris:** I believe that each resident needs to listen to his or her own body. If I ask them to do a number of repetitions of an exercise and their body is telling them do less. I want them to listen to their body. They will be less likely to sustain injury if they listen, stop, rest and join back in for the next exercise. I give them an open invitation to rest each time I announce an exercise, "If your body allows."

I believe it is important to make exercise fun, because if it is not fun, they are not going to do it. The Balance System programs are fun. We typically end each class with a Broadway chorus line number like, "All That Jazz." They love getting their hands up – because who doesn't like to feel like a kid sometimes?

For more information on Biodex Physical Medicine & Rehabilitation equipment, please contact:

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