the end, we were pleasantly surprised in some of the findings.”

Over a period of 12 weeks, NOFFS training was compared to conventional physical training as delivered by a Command Fitness Leader (CFL), using the same evaluation and measurement tools, which included functional movement ability (i.e., Functional Movement Screen or FMS); job task simulation (functional test); physical readiness (i.e., conventional Navy Personal Fitness Assessment or PFA); work and health status (i.e., anxiety, depression, quality of life and sleep quality); and health behaviors (i.e., exercise compliance, physical activity reported as sitting time, and dietary intake).

Although all study groups improved in FMS scores, PFA components and functional test times, all NOFFS groups showed greater improvement than the conventional CFL-led PT group in each category. “Further, waist circumference was singled out as a significant improvement for all NOFFS groups,” notes Sexauer.

“Waist circumference decreased for all NOFFS, while the CFL-PT group demonstrated a slight increase in waist circumference. This is significant, as waist circumference is a leading health indicator for a multitude of preventable diseases (e.g., heart disease, diabetes, some cancers).”

As Sexauer points out, NOFFS was specifically developed by the Navy, under the guidance of the Athletes Performance Institute (recently rebranded as EXOS), to enhance functional movements typically performed throughout a sailor’s workday. “In short, performance enhancement of on-the-job tasks was the primary target. The methodology, developed by EXOS, provides a very strong foundation for all human movement. Therefore, the focus on building the core (pillar) without specifically training for some of the components of the Physical Readiness Test or PRT (e.g., sit-ups and pushups) yielded better results in those areas than conventional PT.

“I have often been asked, ‘If sailors have to perform the PRT twice a year, why is it necessary to do anything other than the PRT exercises?’ This approach simply leads to overuse injuries, plateaus and eventual performance regression. Striking the right balance is essential to a fit and ready fighting force. We believe NOFFS does just that.”

The primary target of the Navy Operational Fitness and Fueling Series (NOFFS) program is performance enhancement of on-the-job tasks for sailors.
NOFFS 2.0

NOFFS provides the Navy with “best in class” physical fitness and nutrition information for sailors, allowing the Navy to maintain peak physical readiness, which is a top priority of the 21st Century Sailor and Marine initiative, according to Sexauer. “NOFFS provides sailors with an evidence-based performance tool that will address injury prevention by physically training the movement patterns of operational tasks. The NOFFS webpage, smart phone and tablet applications provide the complete NOFFS program in a convenient format that is readily accessible to sailors and portable anywhere in the world. An upgrade to the current app will allow users to populate their weekly meal plan from a list of high-octane food options.”

As a progression to the current ‘Operational Series,’ the Navy and EXOS partnered to develop three new workout series, The Strength Series, The Endurance Series and The Sandbag Training Series, to provide sailors with a workout specific enough to meet their individual performance requirements and special interests, according to Sexauer. “In addition to the three new fitness series, The Regeneration Series helps facilitate recovery and assist sailors with mitigating nagging aches and pains,” she explains. “Each series is accompanied by a fueling strategy and options for scheduling workouts that accommodate the user’s schedule, and provides various options for workout schedule, duration, equipment, recovery and optimal fueling. The new workouts and fueling strategies will be accompanied by a mobile app and Web-based virtual trainer.”

The Strength Series was created to help sailors develop the strength that is needed to perform at the highest of levels on the job. “There are three training phases within the series intended to progressively build a user’s total work capacity and improve cardiovascular fitness,” notes Sexauer.

The Endurance Series focuses on developing cardiovascular fitness while providing methods to improve muscular strength, with exercises that are designed to assist with breaking through training plateaus while decreasing injuries often associated with traditional endurance training. “The workouts can be accomplished in a number of ways, including running, biking, rowing, or utilizing any cardiovascular machine,” explains Sexauer. “Beyond the cardiovascular training you would expect to see in this series, we have also included additional training components that are vital to your sustained success with endurance activities. These include pillar prep, strength and plyometrics.”

The Sandbag Series provides sailors with a training plan that can be performed in environments with limited equipment options, helping them to develop the raw strength and power needed to meet the performance demands placed upon them in any environment. “The series progresses through three phases of training, building upon the work completed in the previous phase and preparing for what’s to come,” according to Sexauer.

She points out that The Regeneration Series is a nice addition to the program as it helps facilitate recovery, which is a critical component to any training program. “This helps bring balance back to the body, and enhance the body’s response to the training stimulus,” she explains. “Movements in these sessions focus on soft tissue release, utilizing a foam roll and trigger point ball, as well as flexibility routines. These strategies will help you re-establish the length and tension of your muscles, break up knots, reduce stiffness and increase circulation to flush your system and re-energize your body.”

Each of the three new workout series for NOFFS 2.0 has an iPhone app and The Regeneration Series is incorporated into each one of the NOFFS 2.0 apps. Navy Fitness also completed the review of an Android app for this series along with an iPad app, all of which will be released with the launch of NOFFS 2.0.

“The new apps are amazing!” says Sexauer. “They provide scrolling pictures of each exercise, so that the user can see how to perform them. If the user needs more detail, a quick swipe up will provide them with a video and written description of the exercise. Those who are more accustomed to the routine can opt for a list of the exercises with the prescribed sets and reps. The meal builders operate the same way as those in the updated operational series, but the zones and macronutrient breakdowns are different, as the demands of the NOFFS 2.0 workouts are greater.”

A FIT FORCE

As Sexauer points out, proven health and fitness programs such as NOFFS are “essential to sustainment of a healthy and fit force! Beyond the exploding cost of health care (particularly for preventable diseases), we need to ensure that our service members and their families are physically and mentally prepared to endure the demanding requirements of military life.”

“A fit and ready fighting force is something we all understand and embrace, but that encompasses a healthy family and far more than the physical aspects of a healthy lifestyle,” she continues. “It goes back to one of our study outcomes as well. The physical is tied to the mental and emotional aspects of health, and they cannot be separated. From shipboard fitness, recreation and resiliency counselors — to making sure service members have a warm and inviting place to live — CNIC is committed to supporting the fleet, fighter and family, and we are doing it every day.”

The success the Navy has had, she asserts, is due to the “tremendous synchronization of fitness programming in the Navy over the past five years. From the Secretary of the Navy’s 21st Century Sailor office (OPNAV N17) to all contributing commands (Navy Installations Command, Navy Education and Training, Navy Medicine, Navy Supply Systems Command), the messaging and program endorsements are falling in line. ‘One team, one fight’ has quickly become the approach, and NOFFS is a perfect example. All of these organizations play a very important role in the development, delivery and endorsement of this program, and I am anxiously looking forward to what the future holds in this area for the Navy.”