PTSD and the Link to Obesity

By Fall 2017 M-VETS Student-Advisor Bonnie Kelly

Seventy percent of American adults are overweight or obese.\[1\] Within the military about 7.8% of personnel are now considered overweight up from 1.6% in 2001.\[2\] Being overweight is unhealthy for anyone, but it causes specific problems for service members, including the possibility of administrative separation for weight control failure. There may be a number of reasons why military personnel are becoming overweight, just like reasons among the civilian population vary. However, service members and veterans may be more likely to face an additional cause of weight gain than civilians: PTSD.

Recent studies show a link between PTSD and weight gain. Because more than half of Iraq and Afghanistan veterans enrolled in VA healthcare have received mental health diagnoses, with PTSD being the most common,\[3\] the link is extremely important to investigate. The military has recognized this link as evidenced by the Millennium Cohort Study, which began in 2001 and involves more than 77,000 military service members representing all branches of service. The goal of the study is to “follow the participants through and beyond their service, for up to 21 years” to evaluate the longitudinal sequence of PTSD, new onset binge disordered eating, and subsequent weight gain.”\[4\] Thus far the study has shown “that PTSD was both directly and indirectly (through the use of compensatory behaviors) associated with weight change in a nationally representative sample of male and female service members.”\[5\] PTSD causes a chronic stress reaction in response to trauma and is a condition identified as a possible risk factor for obesity.

For women, the link between PTSD and weight gain is especially troubling. In the civilian population, one in nine women will
experience PTSD in their life, about twice the rate of men.\[6\] Several studies have shown this link for women, once more confirming PTSD as more than a mental health issue. A longitudinal study of female nurses begun in 1989 with follow up through 2005 showed that even after controlling for depression, also a factor in weight gain, PTSD symptoms were associated with faster weight gain and increased risk of obesity in women.\[7\] Normal-weight women who developed PTSD during the study had a 36% increased risk of becoming overweight or obese compared to women who experienced trauma but had no PTSD symptoms.\[8\] For women who developed PTSD during the study, the study pinpointed when Body Mass Index (BMI)\[9\] trajectories changed, and this change corresponded with the trauma event.\[10\]

The way in which PTSD causes weight gain isn’t fully understood; however, scientists point to the over-production of stress hormones as a potential factor. Cortisol, known as the stress hormone, is released in higher amounts during periods of physical or psychological stress.\[11\] “Cortisol stimulates fat and carbohydrate metabolism for fast energy, and stimulates insulin release and maintenance of blood sugar levels. The end result of these actions can be an increase in appetite and can cause cravings for sweet, high-fat, and salty foods.”\[12\]

So, what does this mean for service members? “High rates of excessive weight and body fat have implications for national security if our Armed Forces are unable to recruit and maintain fitness throughout military service. In addition, the Department of Defense, as the largest public healthcare provider in the United States, must address challenges that obesity poses to the military healthcare system, which not only provides care to service members but also to beneficiaries and retirees.”\[13\] The rate of obesity has implications for long-term healthcare for members but also for healthcare costs. Individuals with obesity are significantly
more likely to have hypertension, diabetes, and sleep apnea than individuals at normal weight. [14]

These health issues also mean it is vitally important to correctly diagnose and treat PTSD, an underlying cause of weight gain. For service members and veterans who have symptoms of PTSD it is important to seek help. While earlier treatment is better, it is never too late to receive PTSD treatment. Studies now show that treatment can be imperative for both mental and physical health. Talk to your family physician, a therapist or local VA facility. For clinicians working with service members and veterans diagnosed with PTSD this requires “integrated efforts from primary care and mental health to treat underlying mental health causes and assist with engagement in weight loss programs.” [15]

Even though a majority of the population is now obese or overweight, there remains a stigma surrounding weight gain, often attributed to lifestyle or laziness. For service members or veterans who struggle to maintain a healthy weight, it is important to know if PTSD may be a contributor so that weight can be managed more effectively and prevent other health conditions related to obesity. There is no stigma to having suffered a trauma.


[2] Id.


Women with PTSD, supra note 6.

BMI is defined as a weight-to-height ration, calculated by dividing one’s weight in kilograms by the square of one’s height in meters and used as an indicator of obesity and underweight.

Kubansky supra note 7.


Fit-to-fight-fit-for-life[].
