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The targeted population I choose is military veterans with mental illnesses linked to cardiovascular disease (CVD), specifically to PTSD medications and the lack of preventive measures disclosed to the veteran when experiencing weight gain.

I chose this population because I have personally watched the struggles of my fellow Veterans that suffer from mental illness and cardiovascular disease. I feel that the military focuses heavily on our transition training into civilian life with tools to develop in the workforce but fail us in terms of mental health and medical health until it is too late sometimes. I have noticed almost every veteran friend of mine that are much more overweight than they ever have been and suffer from some form of mental illness, as do myself. I do frequent the Veteran Affairs hospital due to my military injuries and constant treatments, but I have yet seen them address obesity and the consequences of obesity or CVD risk. It seems they place more emphasis on the mental health aspect when it becomes an issue. I have yet to see or learn of any programs for prevention of CVD from my VA healthcare providers. I feel programs and awareness needs to be in place. We have served our country for decades and why isn't the medical health professionals educating us of possibilities and statistical outcomes when it comes to CVD as a risk from having a mental illness. I feel that the VA medical system is failing us veterans since most of us are prescribed prescriptions for antipsychotic and anticonvulsant/mood stabilizers medications, two medication classes that are commonly used to treat serious mental illnesses and that are known to contribute weight gain and metabolic dysregulation.

When I communicate with my health care professional of a mood stabilizer that is making me hungry at night and I tell her that I cannot control the urge because I am half asleep because the medication is sedating. She gives me a reply of only keep healthy options

in my home; instead of looking at some other options to help me out. I feel defeated because what is more important...my mental health or my physical health? And right now, my mental health is more important. This course has opened my eyes to really assess and learn to come up with ways to incorporate a healthier lifestyle. I feel that the VA needs to take some responsibility and not only find the medications that work to stabilize the veteran, but to educate us how to maintain our physical health as well.

The general profile of CVD in veterans with PTSD is that research shows that in the past twenty years there is evidence that individuals with PTSD report more health complaints, suffer from more physician-diagnosed medical conditions, and exhibit higher health care utilization. (Dedert, 2010). Two common diseases that are linked to PTSD are cardiovascular and metabolic disease. But why is the VA failing to disclose this?

I found a study that that includes 1.52 million male veterans and 84,000 women veterans. The study data sources are from the VA outpatient, inpatient, laboratory, pharmacy, vital signs, and health factor datasets; from the combined Centers for Medicare and Medicaid Service data files; and from the Centers for Disease Control and Prevention's National Death Index database. These sources were linked using VA data sources.

Profile of the BPS models paradigms are Male Veterans (1.52 million) and Female Veterans (94,000) with psychiatric diagnosis, as well as age, race and CVD risk factors that were calculated by the Veterans Affairs Risk Score-CVD, and antipsychotic and anticonvulsant/mood stabilizer medication prescriptions. In the fully adjusted model, among men, they found that depression, psychosis, and bipolar disorder were predictive of both CVD events and CVD mortality. With psychosis having the largest effect size. Among women, only psychosis and bipolar disorder were predictive of both CVD events and CVD mortality, again

with psychosis having the largest effect size. Anxiety was associated with only CVD in men, and depression was associated with only CVD events in women.

It was found that chronic stress leads to greater CVD risk, multiple mental illnesses were associated with an increased risk of CVD outcomes, with more severe mental illnesses having the largest effect sizes even after controlling for other psychiatric diagnoses, conventional CVD risk factors, psychotropic medication use.

In one of the models I reviewed, it explained the influences of traumatic stress, PTSD, psychological states, and health behavior on pre-clinical disease markers. It is proposed that pre-clinical disease biomarkers then progress to cardiovascular/metabolic disease through autonomic dysregulation, endothelial dysfunction, metabolic syndrome, and insulin resistance. This model was created since there is a potential relationship between PTSD and increased cardiovascular reactivity to trauma-related cues, disturbed sleep physiology, autonomic hyperarousal, and altered HPA activity. Something else to consider is the question of why do most veterans with PTSD now have obstructive sleep apnea (OSA)? Simple answer could be is that the disturbed sleep can intern cause sleep deprivation which can make the PTSD symptoms worse. But also, wouldn't this be another factor to link this to CVD if the veteran in unaware that they may have OSA? Another reason why the VA needs to become proactive in the preventative measures taken for veterans that are diagnosed with PTSD. This needs needs to step out of the mental heath building and encompass the healthcare system as a whole entity to better serve veterans. For example, I now have OSA, I would not have knowledge of this prior if it was not for a past partner of mine and I had a sleep study conducted. OSA is also been associated with many different forms of CVD including hypertension, stroke, HF, coronary artery disease, and atrial fibrillation. Adults with OSA not

only have an increased risk of developing comorbid CVD but also have worse outcomes related to CVD. OSA is highly prevalent, estimated to affect 34% of men and 17% of women in the general population and 40% to 60% of patients with CVD. Furthermore, the prevalence is increasing, with these figures representing a 30% increase over the previous two decades, likely related to the obesity epidemic as well as aging population. (Tietjens, 2018). This course has literally saved my life, and this is one of the reasons I want to become a public health advocate. Targeted populations need to know what they are at risk of and how to prevent this.

First preventative measures, I feel the knowledge needs to be communicated to the veterans by the healthcare providers, which is not the case. If it were up to me and I had a veteran that was diagnosed with PTSD, there would be a default checklist with had me connected to their PCP. The checklist would include at minimum, sleep clinic, blood labs, dietician, smoking cessation, pharmacy, and BMI. Upon the results, the PCP and I would go over the results and create a personalized plan. Since I would not be the medical doctor; I feel the mental health professional will have this on record to implement this as part of the monthly visits that veterans have with the mental health professional. The VA healthcare system is one entity, meaning every provider there can view the entire medical health/mental health record of that veteran. Veterans with decades of active duty service I feel need a little gentler hand, since there is just so much change. First they have experienced many traumas, next they are not being weighed in twice a year, there is no longer physical agility tests twice a year and daily workouts, they are not on duty anymore so meals are no longer provided, they need to think how and what to eat, they are not having the monthly reminders of when to go to the dentist or see the doctor. Basically, their focus is managing their mental health since

therapy and medication help. Veterans rarely think of asking for medical help until its broken or unbearable. But if the mental health provider included the checklist to ask about the line items, just as they ask about the mental health checklist; this would be one of the first steps in a series of preventative measures.

When it comes to the veteran themselves that have PTSD to reach this targeted population at risk for CVD, this is where the brochure will come into place. I would have this displayed in every building at the VA hospital. The VA hospital is a “one-stop-shop”. Everything you need medically or mental health related is located there. Veterans will take notice if the brochure is simple and have words they can relate to. Since many veterans have to wait hours sometimes, they are on their phones to pass the time away and if it had a QR code, they could go to the website from the QR code and schedule every item that is offered in the brochure. And they would be set in the right direction.

Ways to lower the risk of heart disease is to monitor your blood pressure by having your blood pressure checked at least once per year. Keep your cholesterol and triglyceride levels under control. Stay at a healthy weight. Eat a healthy diet. Get regular exercise. Limit alcohol. Don't smoke. Manage stress. Manage diabetes. Make sure you get enough sleep.

As I researched, I was surprised that there was no concrete information for veterans on the VA website that lists how they can prevent CVD. I will be bringing to light the basics and include resources for them on ways to prevent CVD by incorporating healthy ways to improve their quality of life. Since this is not the average population of Americans and that these are veterans managing mental illnesses, I will elaborate more of each step and direct them so they can be educated one-on-one with a health care provider.

Quit smoking and tobacco. Contact you VA healthcare provider to enroll in a smoking cessation class or to meet with your provider to be prescribed nicotine gum and/or nicotine patch. Contact your VA healthcare provider to meet with a VA-registered dietician help learn how to prepare healthy meals in our VA Healthy Teachings Kitchens and obtain recipes to prepare your meal plan to lower your risk of CVD and manage weight. Contact your VA healthcare provider to learn about the VA weight management health promotion program. Contact sports4vets@va.gov to find out opportunities and programs aimed to optimize Veterans' independence, community engagement, well-being and quality of life. And emphasis the importance to communicate via myHealtheVet app to compose messages and increase communication with their VA healthcare team providers and to ask questions and voice their health concerns.

The benefit for my outreach is to reach out to my fellow veterans and let them know they do not have to suffer or accept this weight gain due mental health and medications that make them a high risk for CVD. The brochure will address them has a high risk for CVD due to mental illness. Let them know reasons as to the “why” they are gaining weight and that this is real and speak in a way to let them know they are important and that there are a number of realistic ways to maintain you mental health and incorporate small healthy habits that can help prevent CVD.

I will propose this idea at my next appointment with my mental health provider and ask why this is not being made aware to us. Maybe this is an opportunity for them to make some change. But at least for now I can become an advocate given of the information I know and am now aware of and the steps to start preventing this. I purposefully left out the statistics

in my brochure, given that we knew the statistics going into the military and we still did anyway.

I feel it would be impactful on the brochure to have relatable words, thoughts, and habits for them to want to make a step in the right direction and prevent CVD. It will include that causes for CVD that lead Veterans at becoming a high risk for CVD that have mental illnesses. I will list preventative measures and options to reduce the risk for Veterans, and list supportive organizations either in the VA or affiliated with the VA where they can contact to become proactive to help prevent CVD in themselves and other Veterans.

References

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