

Wayne State Warriors Marijuana Clinical Research Program: Investigating the Impact of Cannabinoids on Veterans' Behavioral Health

Leslie H. Lundahl, PhD, Lead Principal Investigator
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Project Aims:

In this randomized, controlled clinical trial we are recruiting veterans with PTSD who report using cannabis. **We are conducting two studies that are complementary and linked via their aims and methodology.** In **Study 1**, a minimum of 200 veterans will be randomized into one of four different THC:CBD dose conditions (THC; CBD; THC+CBD, and placebo) for a 12-week treatment phase. In **Study 2**, 150 veterans will be randomized into *one of two groups*: a THC reduction group (n=75), tailored across THC products that are approximately 50% lower in THC than the products participants currently use; or a THC reduction + 1:1 THC:CBD group (n=75), also including tailored THC concentrations as in the first group but with CBD added in a 1:1 THC:CBD ratio. Within each Study 2 treatment group, participants will be randomly assigned on a 1:1 basis to either start the 12-week treatment after a 2-week baseline or a 6-week baseline so we can examine participant naturalistic cannabis use before introducing the new product. **Both studies** involve assessments weekly and bi-weekly throughout a 12-week treatment phase, and at 3-, 6-, 9, and 12-months post-baseline. **Primary outcomes** include clinical assessments of PTSD symptom severity, mood and anxiety symptoms, and suicidality. **Secondary measures** include (1) neurocognitive function; (2) overall health, sleep quality, pain, healthcare utilization, and quality of life; (3) individual differences in fear learning and extinction associated with PTSD symptom severity; (4) saliva for DNA analysis to examine genetic and epigenetic markers associated with the endocannabinoid system; and, (5) urine, blood, and saliva samples to quantify levels of endocannabinoids and their metabolites (e.g., anandamide [AEA] and 2-AG), as well as THC and CBD and their metabolites, to examine whether these levels vary as a function of THC:CBD dose mixtures and differentially affect outcomes. Data will be analyzed to determine which dose conditions might be associated with the outcome measures. These data will be used to (1) develop a predictive algorithm that will help determine personalized profiles of patients who may be at increased risk for suicide; and, (2) develop a profile of who might most benefit from cannabinoid therapeutics.

1). Project Milestones

Study 1 and Study 2 Protocols have been revised and finalized in accordance with discussion with CRA/LARA.

- **Project Progress**

We continue to update our project website (www.warriorCARE.net) regularly. Study 1 is listed on ClinicalTrials.gov, which also provides contact information to enhance referral efforts. Study 2 is in the process of being listed.

The FDA hold was lifted on April 9, 2025. On June 24, 2025, we received IRB approval for the finalized protocol—reviewed by the FDA—which includes all recruitment materials (e.g., flyers, advertisements, website screening tools, etc.). With these approvals in place, we are now able to initiate participant recruitment.

Our recruiter has begun reaching out to several Veteran-serving organizations with whom we have maintained contact over the past 6–12 months to inform them that recruitment is now underway. We have expanded our list of referral sources and are identifying additional venues where recruitment materials can be distributed. We are also exploring local job fairs and community events where staff can engage directly with potential participants.

To support these efforts, we have hired two additional staff members who will assist with recruitment, screening, and data collection. One is currently completing the onboarding process, and the second will begin in mid-July as recruitment activities increase. We plan to hire one to two additional research assistants once a steady stream of potential participants is established. Additionally, we have brought on several research volunteers to assist with recruitment activities.

Routine maintenance is currently being performed on the Pharmacology Lab Van.

We have received all four batches of cannabis ordered from the NIDA Drug Supply Program via RTI.

• **Noteworthy Accomplishments – Identify and describe any milestones reached or noteworthy accomplishments completed during the period.**

The set up of REDCap data capture for data collection and participant monitoring for Study 1 is complete. Set up for Study 2 has begun. Given the challenges of obtaining FDA approval for Study 1, Drs. Ledgerwood and Lundahl continue to strategize possible Study 2 amendments to ensure procedures are consistent with FDA and DEA requirements.

Our website, WarriorCARE.net, is now live and includes information about the study, an online screening questionnaire, and a form to submit contact information.

All WSU IRB approvals are up-to-date.

2). Delays – Brief description of problems or delays, real or anticipated, which should be brought to the attention of the Grant Administrator.

Because study activities had not yet begun, we significantly reduced salary support for research staff during the initial phase of the project. Now that we have obtained all necessary regulatory approvals and are initiating participant recruitment, we plan to gradually increase salary support. However, we will not restore salary levels to those outlined in the original budget until we are actively enrolling participants and making consistent progress with study activities.

3). Statement concerning any significant deviation from previously agreed-upon Statement of Work.

N/A

4). Financial expenditures of grant money and other contributions to the project, in-kind and/or direct funding.

All financial information is being provided through Wayne State University Sponsored Programs Administration and is being sent under separate cover.

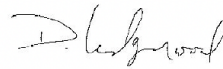
Attachments and Other Materials – Provide project materials developed and implemented during the reporting period (e.g. newspaper articles, newspaper advertisements, forms, brochures, announcements, studies, reports, analyses, audits, etc.).”

N/A

Respectfully submitted,



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