BattleField Memory Bandaids

by WarriorHealth CombatCare

Time to Come Home

OUR VISION—AN EFFECTIVE POST-TRAUMATIC STRESS (PTS) TREATMENT: WarriorHealth CombatCare aims to improve quality of life for millions of people. With *BMBs*, WarriorHealth will deliver an evidence-based audiological Therapeutic Trigger Management solution by smartphone and smartbuds.[1] With Combat PTS, wounded warriors are always at war. We help veterans regain pride and independence by ending their war.

OUR VISION—COGNITIVE COMBAT INSURANCE (CCI): Our founder invented the concept[2] by being the first to notice an 8.8% to 50% spread in US Combat reports.[3] An effective treatment creates the means to create a profitable spread, which is necessary to market the therapy as a private insurance supported solution. Imagine a vertically integrated industry delivering effective, accessible care to every cognitively-injured veteran.

OUR BUSINESS: We ballpark US veteran and active military sales at $76.4 billion and neuro-inoculants at $31 billion. We make money by licensing and selling *BMBs* packaged in various guises (mobile app, "smart" earbuds, ruggedized hardware) at multiple price points. *BMBs* are discreet, non-invasive, easy-to-learn and use, and administratively fit beside two therapies (Virtual Reality, EMDR) considered helpful by military agencies. Enterprise SaaS will deliver updates to clinics. Competitor devices are $US141-3,000 (China) and $US1,900-$5,500 (Can/USA), suggesting $8-50 COGS/88-97% Gross Margin. **PRICING: (a) Military/Veteran:** Ruggedized Battlefield Unit = $5-8,000 per unit + monthly enterprise SaaS updates. Veteran Unit amortized over 5 years. **(b) Mass Market:** 3 to 5 price points + monthly subscription delivered through health authorities and HMOs.

ABOUT PTSD: PTS develops when a person experiences horror and life-threatening stress. The disorder develops when a person cannot emotionally 'move on' from life-threatening experiences; is "triggered" by sensory reminders; experiences a cascade of awful memories; may imagine that they are back in the situation; and may act as if they are. Military culture and general society often frame the PTS response as shameful, and sufferers often quietly despair to avoid the stigma. Managing this fluctuating stress kills more veterans than combat—18 US veterans suicide every day; in Canada, 17% vs. 5% in combat. Biochemical drugs are ineffective and debilitating;[4] sufferers often self-medicate and become homeless; Talk Therapy takes years and is in short supply; and sensory influence treatments such as Virtual Reality Therapy require clinical labs which, again, have low processing rates. An effective solution is urgently needed for this profound social challenge.

REPURPOSED TECHNOLOGY: We propose to manage the trigger functions that spark remembered experiencing of a stressful event. We aim to test whether Altered Auditory Frequency (AAF) Class 2 audio devices approved for stuttering and trauma-induced speech affect can be generalized and re-purposed, after

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[1] WarriorHealth has filed a provisional US claim to re-purpose a tech class approved for speech disorders produced by cognitive trauma. Competitors Rastatter, Michael P. et al. [USPTO Applic: 20110028777, 11-Oct-2010] and licensee Janus missed our claim area.

[2] On average, new US veterans with PTSD are stuck in limbo, waiting without treatment for 4.4 to 5.4 years until getting the disability rating they need to get care. We propose a global securities'-based Combat Insurance industry by re-framing veterans with cognitive injuries as "combat workers'" needing compensation solutions. WarriorHealth seeded a proposal to create a public-private Veteran Triage Service Consortium (VTSC) supply chain partnership, to provide and fund all PTSD care that is peeled off DoD and VA's service-transition program. This got us networked to Vice-President Biden's office and Congress where it was examined for use to privatize part of VA care. VTSC is also being evaluated by BC Worker's Compensation. We ballpark US military sales at $76.4 billion per year, or 5.4% of the average maximum cost problem. If we create a vertically integrated insurer where we supply tech that minimizes our payout and that of competitors, conceivably we could dominate major segments of the global Cognitive Combat Insurance business.

[3] The US proposal is to cover 100% of care by converting all veterans without a disability care rating into a market of (un-recognized and un-served) customers, and securitize the spread to pay for VTSC. This way means that Nation-States' veteran agencies can stop managing costs they already avoid without fear of loss of operational entitlements for other programs.

[4] Losciale, Christian, "PTSD medications fall short, other treatments remain," www.veteransunited.com/fitness, August 16, 2011, cf. http://www.nytimes.com/2011/08/03/health/research/03psych.html?_r=2

auditory distortions resulting in measurable residual effects were observed in a survivor of 12 years of childhood rape and torture. The subject experienced severe PTS triggering and a severe stutter for over 40 years. While using the mobile anti-stuttering therapy the subject enjoyed disfluency reduction from ~95% to 7%, observed hypervigliance reduction by ~18 months, and has enjoyed a life nearly free of trigger responses for 5 years.

WHY ATTRACTIVE TO MILITARY? The USA avoids most PTSD costs by simply not rating injured veterans; similarly, Canada offloads long-term care with a one-time $250,000 payment to new veterans. Nevertheless, there is deep desire to solve honour, moral, morale, mission, cost, and political problems. US R&D jumped from $33M (2010) to $5.6B (2011) as DoD attempts to find a workable treatment, after estimating PTSD care costs for 17,750 OIF/OEF initial veterans at $4.0-$6.0 billion. The fundamental issue has remained constant: known methods are not effective, profitable, or easily accessible to non-clinical populations or the mass market.

US Cost Problem: $1.1-2.0 trillion = (3.0 to 6.9 million older veterans + 220,000 OIF/OEF[5] + up to 20-50% of all future ADP) x average $277,000 per veteran per year: greater than $1.3 Trillion FY2010 federal cash flow.[6] **Global Cost Problem Using US Spend:** $4.9 to $12.5 trillion per year. All new cases = 90 million ADP x 20-50% x $277,000. **Global Market Value:** Many democracies want to treat C-PTSD, but all Nations avoid 100% care, and most minimize spend, or simply do not provide care. Profitable privately insurable therapy solves the problem.

IMMEDIATE MARKETS: (a) US Military: 8.8-20% of Active Duty Personnel (ADP) and 30-50% of combat ADP. Canada is equivalent. **(b) US/Canada Civilian:** 8-30%. **USA PTS TARGET POPULATIONS, BY PHASE: A:** Veterans (50% = 12 million) & Active Duty (50% = 866,000). **B:** First Responders (1.4 million). **C:** Civilian High-Need (ex. Rape/Assault: 23 million). **D:** General (5.3 million).

OUR COGNITIVE BLUE OCEAN PIPELINE: We parallel "biochemical drugs" with cognitive "audiological drugs"—solutions delivered using mobile apps, "smart" earbuds, and subscriptions. A new treatment option stimulates research to better understand the mechanism of action and pathophysiology; might assist with understanding of mechanisms to treat other neuropsychological disorders; acts as "a shot in the arm" for the developing field of "neuro-inoculants"; may produce a military/first responder screening test; stimulates work to explore other applications (operational/acute stress, depression, anxiety, phobias, addictions and hybrid solutions, including other stressors affecting brain-gut axis interactions, such as irritable bowel syndrome and other functional bowel diseases); and indicate expansion to other neuropsychological disorders.

COMPETITION: Similar technologies consolidate and reduce fear-driven memories, and trauma-induced communicative affect. ***Direct***: Evidence-based therapies include Virtual Reality Therapy, VR Full Spectrum Warrior, EMDR and BattleMind—all used by DoD/VA; approved FDA Class II devices such as Janus' SpeechEasy ($1.9-$5.5K/unit) and Casa Futura's SmallTalk ($2.5K); and no-claim knock-offs such as ArtefactSoft ($70-$300), and axSoft's Speech Corrector 1.72 ($25). ***Substitutes include:*** Hearing aids ($1-$4K/unit), Drugs (Seroquel $2,557/yr; Ritalin $821/yr), and software (BrainState Tech, $1.2-2.5K). A major US university calls our proposal "valuable technology". In Canada, our founder received misleading advice from academic scientists, and government advises that this tactic is designed to get uncompensated control of valuable research streams.

NEXT STEPS:

- **Patent Claims:** Find investors and expertise who will finance patent claim filings.
- **Technology**: Find contributor to obtain and/or build/validate hardware/software solution.
- **Protocol:** Finish alpha for 18 month pilot study of 10 subjects.
- **Patient Population:** Target veterans using military clinical care contacts.
- **Partner/Investor:** Propose to have partner acquire and bundle us with key direct competitor.

[5] Treating all 220,000 US OIF/OEF veterans with PTS is ~US$31B per year using talk therapy, or ineffective biochemical drug regimes.
[6] USA Inc., Kleiner Perkins Caulfield Byer, Menlo Park, CA, Feb. 2011. http://www.kpcb.com/insights/usa-inc-full-report