# **VIARRIOR** PATHK





## **"STRUGGLE IS A TERRIBLE** THING TO WASTE."

– CAPT. CHARLIE PLUMB Former Navy Fighter Pilot and 6-Year Hanoi Hilton Prisoner of War

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Warrior PATHH is a peer-based training program that relies on a variety of educational and experiential activities for the purpose of teaching life skills, increasing community integration and involvement, and promoting physical, emotional, relational, financial, and spiritual health. Warrior PATHH is not an outpatient or residential clinical treatment program and does not offer any health care services including, but not limited to, use of licensed healthcare professionals in the delivery of programs or supervision of staff. Warrior PATHH does not involve the provision of health care of any kind including, but not limited to, individual, group, or family counseling or psychotherapy, pharmacological management, or medical interventions. Warrior PATHH is not offered as a substitute or replacement for health care services, which may be ongoing or needed at any time by program participants.





# FOUNDATION

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### **EXECUTIVE SUMMARY**

#### "ALTHOUGH THE WORLD IS FULL OF SUFFERING, IT IS FULL ALSO OF THE OVERCOMING OF IT." — Helen Keller

At Boulder Crest Foundation, we know that profound strength and wisdom can emerge from pain and struggle. This is the essence of Posttraumatic Growth and the foundation of our Warrior PATHH program. Over the past decade, Warrior PATHH has grown into a nationwide movement that enables our nation's heroes to transform their struggles into a life of meaning, service, and purpose.

In 2024, this movement continued to grow in both reach and impact. Alongside our Warrior PATHH partners in the Avalon Action Alliance — GratitudeAmerica, Camp Southern Ground, Big Red Barn Retreat, Travis Mills Foundation, Permission to Start Dreaming Foundation, and Sheep Dog Impact Assistance — we delivered more than 150 programs to over 1,100 members of the military, veteran, and first responder communities. We expanded our partnerships and strengthened our ability to bring life-changing support to those who need it most.

The need for our work has never been greater. Suicide rates among actively-serving military members, veterans, and first responders remain alarmingly high, with far too many individuals navigating the hidden wounds of service in silence. The stigma surrounding mental health care persists, preventing many from seeking help. And for those who do reach out, traditional approaches often fall short of addressing their unique needs. At Warrior PATHH, we offer an alternative — a pathway that is rooted in hope, strength, and the evidence-based science of Posttraumatic Growth.

We continue making significant strides to meet the growing demand for Warrior PATHH. The results speak volumes. In 2024, we saw Warrior PATHH participants experience a 58% reduction in symptoms of Posttraumatic Stress, along with significant decreases in depression and anxiety. Posttraumatic Growth outcomes increased by 58%, demonstrating the sustained, transformative power of this program. Beyond the numbers, graduates of Warrior PATHH report a renewed sense of purpose and a deeper commitment to their health, families, and communities. They join a growing network of alumni who continue to support one another and embody the principles of Posttraumatic Growth in their everyday lives.



### "OPPORTUNITIES TO FIND DEEPER POWERS WITHIN OURSELVES COME WHEN LIFE SEEMS MOST CHALLENGING."

- JOSEPH CAMPBELL

The work of the Avalon Action Alliance's Warrior PATHH network is not only transforming lives — it's reshaping the narrative around mental health. This year, we continued to elevate the conversation, emphasizing that struggle has value and that growth is possible for everyone. Our advocacy efforts gained traction as we worked to bring Posttraumatic Growth into the national dialogue and ensure that more people understand its potential to change lives.

Looking ahead, we remain committed to our mission of helping America's heroes live fulfilling lives after trauma. We believe that their best days are not behind them but ahead of them, filled with strength, purpose, and the ability to serve others. Together, we can continue to grow this movement and bring hope to those who need it most.

Join us in making this vision a reality. Together, we can transform struggle into strength and create a future filled with possibility.

Josh Goldberg CEO Boulder Crest Foundation Author, *Struggle Well: Thriving in the Aftermath of Trauma* 



### **WHAT IS WARRIOR PATHH**

Warrior PATHH (Progressive and Alternative Training for Helping Heroes) is the first training program ever designed to enable our nation's combat veterans and first responders to transform deep struggle into profound strength and lifelong Posttraumatic Growth (PTG). Warrior PATHH is a 90-day, non-pharmacological, peer-delivered training program that begins with a 7-day intensive and immersive initiation offered at locations across the United States.

Warrior PATHH was developed by Boulder Crest Foundation, a national nonprofit organization working to ensure that service members, veterans, first responders, and their families can live great lives in the aftermath of stress, struggle, and trauma. Warrior PATHH was developed in collaboration with Dr. Richard Tedeschi and Dr. Bret Moore.

#### What is Posttraumatic Growth?

Posttraumatic Growth is the basis of Warrior PATHH and reflects millenia of understanding, decades of research, and years of application at Boulder Crest. The science of PTG suggests that deep struggle prompts individuals to reflect on what is truly valuable and significant in their lives. As a result, growth is often witnessed in some or all of five areas:

- **New Possibilities:** The sense that new opportunities have emerged from the struggle, opening up possibilities that were not present before.
- **Deeper Relationships:** Experiencing closer relationships with specific people, and an increased sense of connection with others who suffer.
- **Personal Strength:** An increased sense of one's own strength "If I lived through that, I can face anything."
- Appreciation for Life: A sense of gratitude for the small and large things in life.
- **Spiritual and Existential Change:** A deepening of their spiritual lives, and an exploration of beliefs and notions previously unconsidered.

"YOU HAVE TO KNOW THAT POSTTRAUMATIC GROWTH EXISTS IN ORDER FOR It to happen. You have to know it's okay for good things to happen after really bad things."

— MANDY PIFER, WHOSE FIANCÉ WAS KILLED IN A 2015 ISIS-RELATED SHOOTING

#### Why Does Warrior PATHH Work?

Warrior PATHH is based on the scientific framework of PTG and trains students in the five phases of PTG, built on an environment of trust and connection:

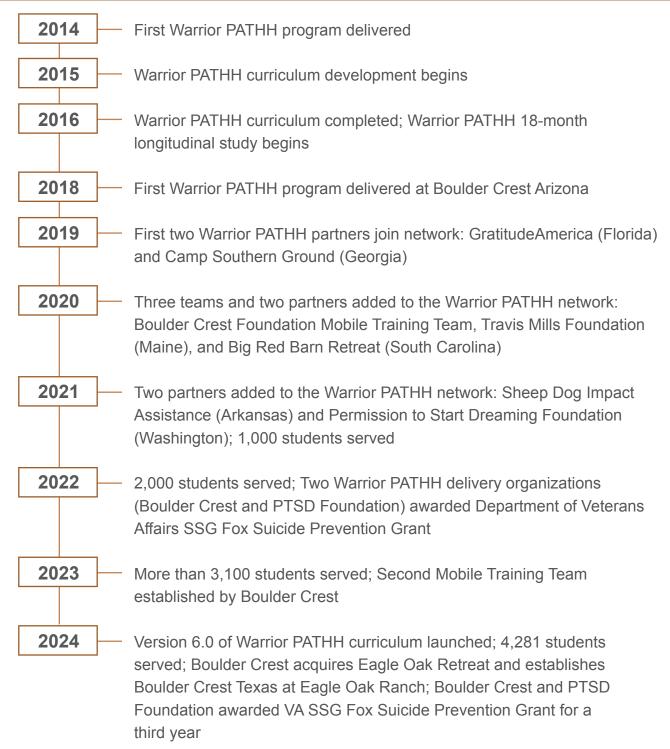
- **Education:** Identify the impacts of stress and trauma; examine the ways in which struggle can lead to opportunities for growth and transformation.
- **Regulation:** Develop mind, body, financial, and spiritual wellness practices to regulate thoughts, feelings, and actions.
- **Disclosure:** Devise ways to self-disclose personal experiences with struggle that are effective in strengthening interpersonal relationships.
- **Story:** Create a positive, forward-looking personal story that integrates past, present, and future.
- **Service**: Develop a plan for a new mission of service to themselves, their family, work, community, and country.

#### Warrior PATHH = Sustained Transformation

The purpose of Warrior PATHH is to enable students to achieve sustained and lifechanging transformation. To that end, Warrior PATHH is a 90-day intensive program that begins with a 7-day initiation, followed by 12 weeks of ongoing training, support, and accountability. This includes five team video conferences led by a PATHH Guide, daily content, private team pages with messaging capabilities, and additional courses, support, and community made possible by the myPATHH app. PATHH Alumni have lifetime access to myPATHH to enable continued engagement and interaction with their peer community.



### THE HISTORY OF WARRIOR PATHH





### THE WARRIOR PATHH NETWORK

The Warrior PATHH Network is made possible by the

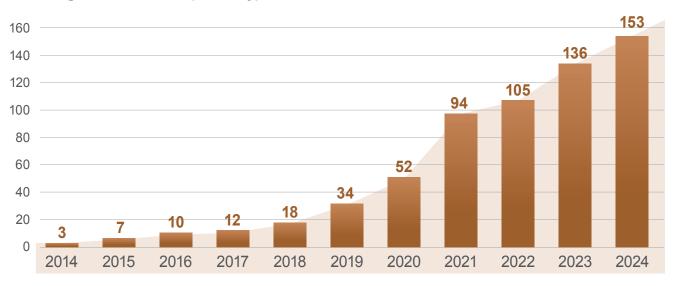


As the home of Posttraumatic Growth, Boulder Crest began the development of Warrior PATHH in 2014 at Boulder Crest's Virginia PTG Academy. In 2018, Boulder Crest expanded the delivery of Warrior PATHH to our Arizona PTG Academy. In 2019, Boulder Crest co-founded the Avalon Action Alliance to begin a national expansion effort designed to transform lives and revolutionize how we support struggling combat veterans and first responders. At the end of 2024, there were permanent teams delivering Warrior PATHH in nine states and two Boulder Crest Foundation Mobile Training Teams delivering Warrior PATHH at sites across the country.



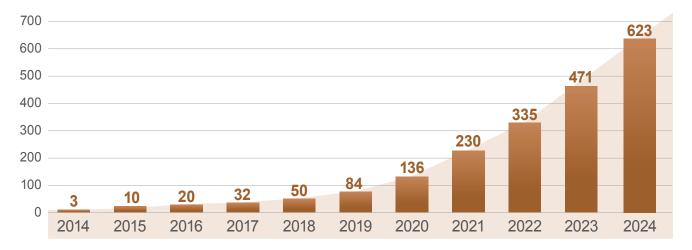
### WARRIOR PATHH BY THE NUMBERS (2014-2024)

The first-ever Warrior PATHH was delivered at Boulder Crest Foundation's Virginia PTG Academy in June 2014. Since then there has been dramatic expansion, fueled by the Avalon Action Alliance's investment in the Warrior PATHH network. We have now delivered 623 programs, serving 4,281 students. The program's growth in student reach has accelerated over time; it took approximately seven years to serve 1,000 Warriors; 18 months to serve 2,000; 13 months to serve 3,000; and we crossed the 4,000 mark in 10 months.

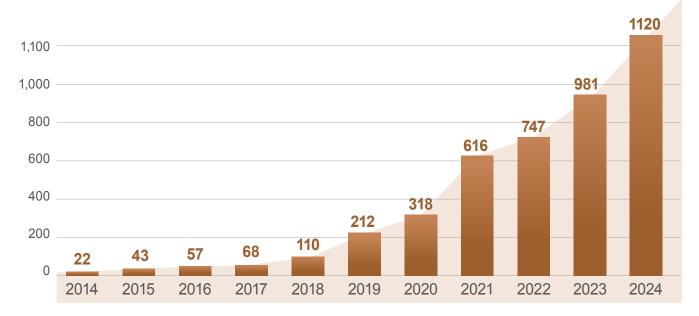


#### Programs Delivered (annually)

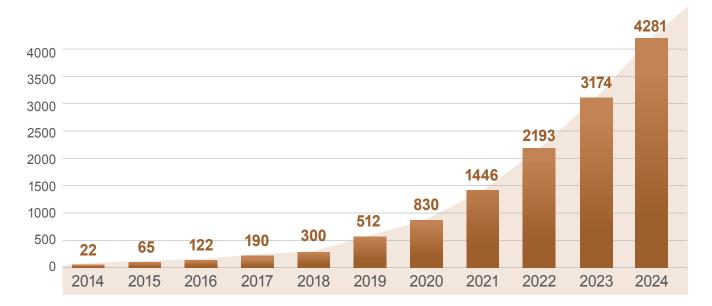
**Programs Delivered (cumulative total)** 



#### **Students Transformed (annually)**

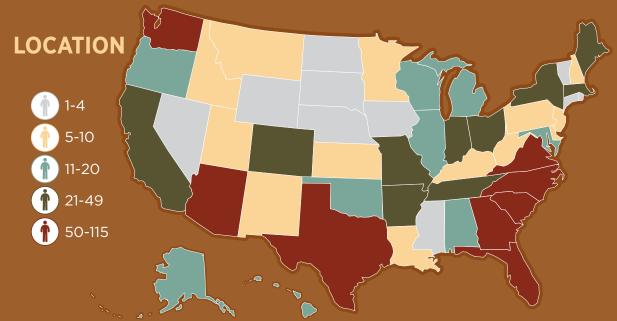


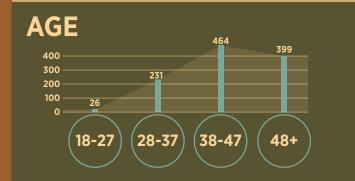
#### **Students Transformed (cumulative total)**



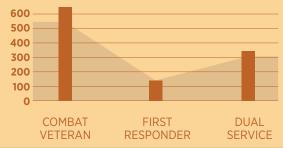
### WARRIOR PATHH 2024: WHO WE SERVED

In 2024, the 11 Warrior PATHH teams served 1120 Warriors across 153 programs. These students came from all 50 states.

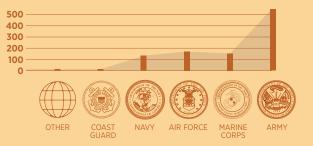




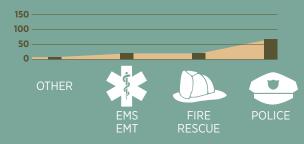
### **SERVICE TYPE**



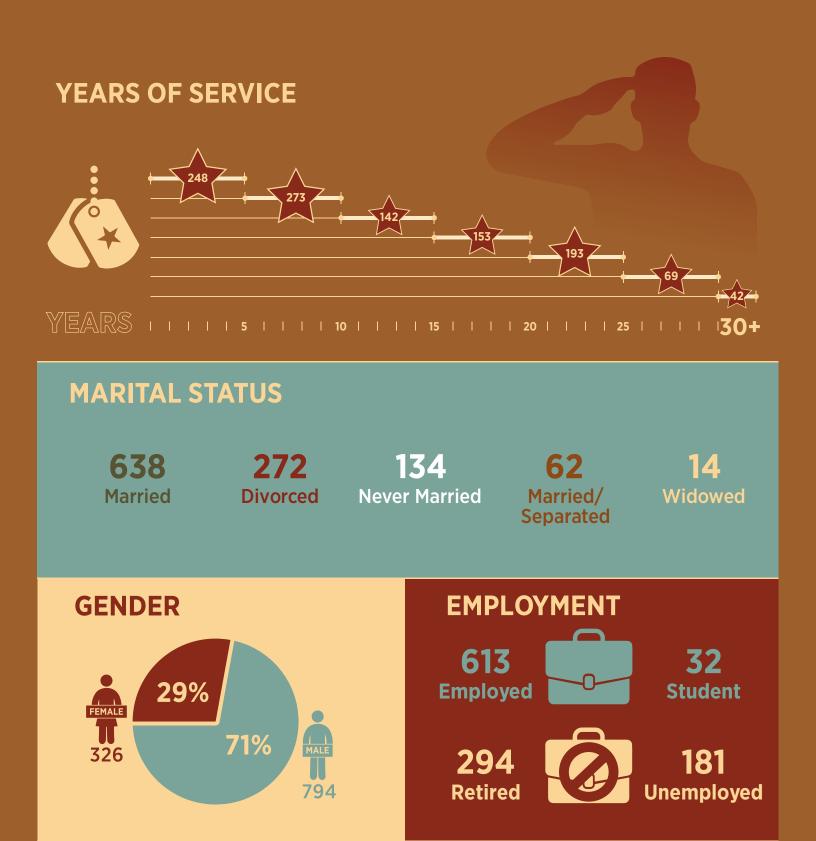
### BRANCH



### **FIRST RESPONDERS**









### TRANSFORMING LIVES: THE IMPACT OF WARRIOR PATHH IN 2024

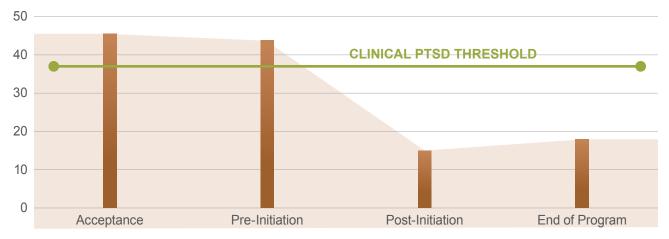
#### QUANTITATIVE DATA (*n*=1120)

We evaluate Warrior PATHH's efficacy using a combination of publicly available clinical instruments and proprietary measures designed to measure the impact of Warrior PATHH in three domains: Symptom Reduction, Quality of Life Improvement, and Posttraumatic Growth. There were four collection points:
(1) upon acceptance into Warrior PATHH; (2) upon arrival at the 7-day Initiation;
(3) at the conclusion of the 7-day Initiation; (4) and at the conclusion of the 90-day program.

### **QUANTITATIVE EVALUATION** Symptom reduction: PTSD Checklist (PCL-5)

#### **Average PCL-5 Score**

Warrior PATHH students experienced a 58% sustained reduction in PCL symptoms, falling well below the clinical threshold after the initiation.



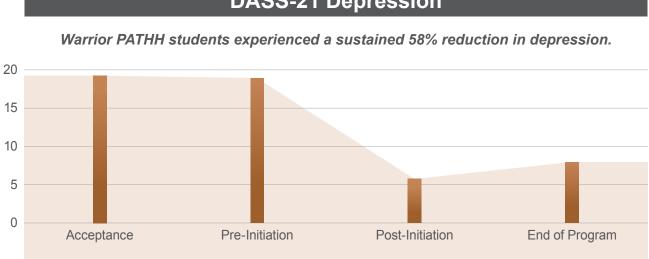
#### **Explanation of Instrument**

The PCL-5 is a 20-item self-report measure that assesses the 20 DSM-5 symptoms of PTSD. The PCL-5 has a variety of purposes, including: monitoring symptom change during and after treatment; screening individuals for PTSD; making a provisional PTSD diagnosis.

#### **Rationale for Usage**

Almost all traditional military and veterans clinical programs measure the presence and severity of PTSD and use it as a means of monitoring the efficacy of treatments specific for PTSD (e.g., prolonged exposure, cognitive processing therapy, eye movement desensitization and reprocessing). It is important that Boulder Crest do the same if it plans to draw comparisons between the efficacy of the Warrior PATHH program and traditional clinical interventions.

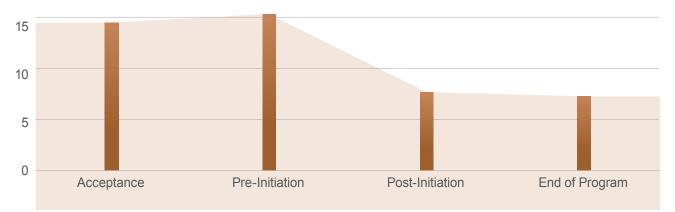
### **SYMPTOM REDUCTION: DASS-21**



**DASS-21** Depression

### DASS-21 Anxiety

Warrior PATHH students experienced a sustained 53% reduction in anxiety.



25 20 15 10 5 0 Acceptance Pre-Initiation Post-Initiation End of Program

#### **DASS-21 Stress**

Warrior PATHH students experienced a sustained 50% reduction in stress.

#### Explanation of Instrument

The short form of the DASS is a 21-item self-report measure with 3 subscales (Depression, Anxiety, and Stress), and includes statements that address how subjects have felt during the past week, such as "I found myself getting agitated" and "I felt that life was meaningless." All items are rated on a 4-point Likert scale, ranging from 0 ("Did not apply to me at all") to 3 ("Applied to me very much, or most of the time"). Together, the three subscales provide a summed score of overall distress (Cronbach's  $\alpha$  = .93). (Henry and Crawford, 2005).

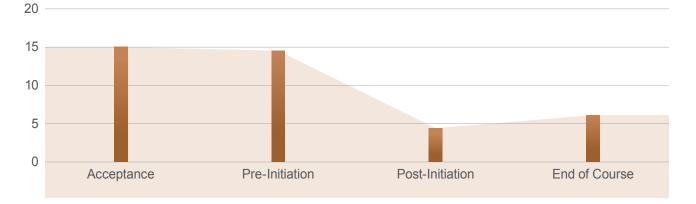
#### **Rationale for Usage**

In addition to being a brief measure of the most common symptoms of psychological problems, the DASS also can indicate response to treatment.

### **SYMPTOM REDUCTION: PHQ-9**

#### PHQ-9

Warrior PATHH students experienced a sustained 55% reduction in depression symptoms.



#### Explanation of Instrument

The nine-item Patient Health Questionnaire is a depressive symptom scale and diagnostic tool introduced in 2001 to screen adult patients in primary care settings. The instrument assesses for the presence and severity of depressive symptoms and a possible depressive disorder.

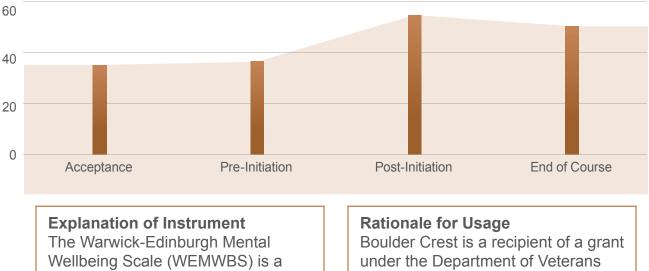
#### **Rationale for Usage**

Boulder Crest is a recipient of a grant under the Department of Veterans Affairs Staff Sergeant Fox Suicide Prevention Grant Program (SSG Fox SPGP). The PHQ-9 was included in the Warrior PATHH evaluation as part of the grant requirements.

### QUALITY OF LIFE IMPROVEMENT: WARWICK-EDINBURGH MENTAL WELLBEING SCALE

### WEMWBS

Warrior PATHH students experienced a sustained 36% improvement in their wellbeing.

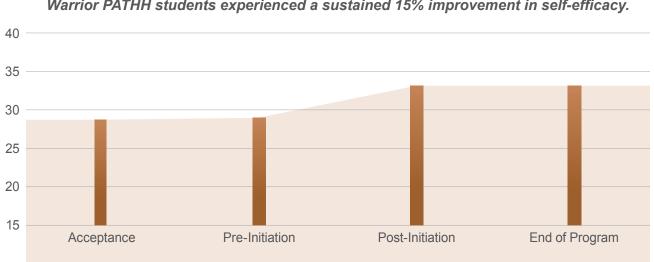


Wellbeing Scale (WEMWBS) is a scale of 14 positively worded items for assessing a population's mental wellbeing.

Boulder Crest is a recipient of a grant under the Department of Veterans Affairs Staff Sergeant Fox Suicide Prevention Grant Program (SSG Fox SPGP). The WEMWBS was included in the Warrior PATHH evaluation as part of the grant requirements.

### **QUALITY OF LIFE IMPROVEMENT: GENERAL SELF-EFFICACY SCALE**

GSE



#### Warrior PATHH students experienced a sustained 15% improvement in self-efficacy.

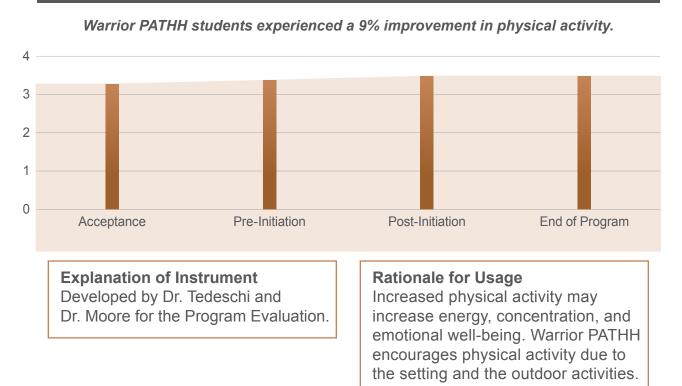
#### **Explanation of Instrument**

The General Self-Efficacy Scale (GSE; Schwarzer & Jerusalem, 1995) was created to assess a general sense of perceived self-efficacy in mind to predict coping with daily hassles as well as adaptation after experiencing all kinds of stressful life events.

#### **Rationale for Usage**

In addition to being a brief measure of the most common symptoms of psychological problems, the GSE also can indicate response to treatment. The GSE was included in the Warrior PATHH evaluation as part of the grant requirements.

### **QUALITY OF LIFE IMPROVEMENT: PHYSICAL ACTIVITY**



### **Physical Activity**

19

### **QUALITY OF LIFE IMPROVEMENT: NUTRITION**

### 4 3 2 1 0 Pre-Initiation End of Program Acceptance Post-Initiation **Explanation of Instrument**

**Nutrition** 

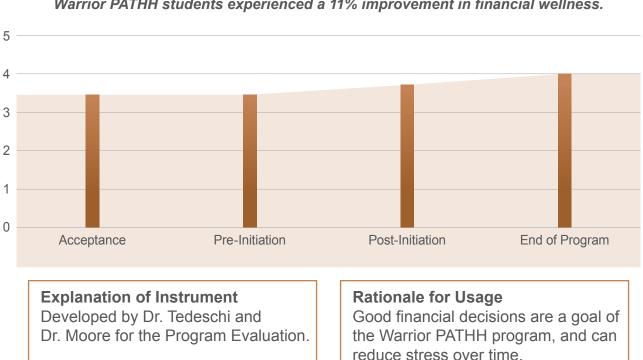
Warrior PATHH students experienced a 11% improvement in nutrition.

Developed by Dr. Tedeschi and Dr. Moore for the Program Evaluation.

#### **Rationale for Usage**

Attention to healthy eating at Warrior PATHH may affect the choices participants make and the eating habits they develop after returning home. Good nutrition can affect emotional as well as physical health.

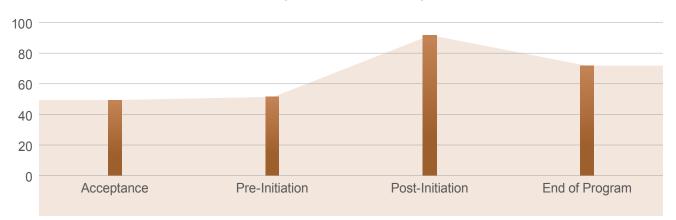
### **QUALITY OF LIFE IMPROVEMENT: FINANCIAL WELLNESS**



**Financial Wellness** 



### POSTTRAUMATIC GROWTH: PTGI-X



Warrior PATHH students experienced a 58% improvement in PTGI scores.

**Posttraumatic Growth Inventory** 

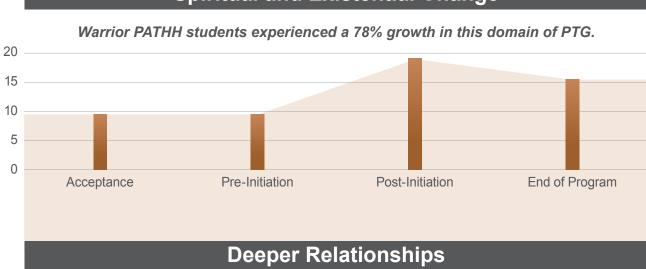
#### **Explanation of Instrument**

The Posttraumatic Growth Inventory-Expanded (PTGI-X) (Tedeschi, Cann, Taku, Senol-Durak, & Calhoun, 2017). The PTGI-X is a 25-item scale that measures the extent to which individuals report positive psychological change as a result of experiencing a traumatic event, and is based on the original measure (Tedeschi & Calhoun, 1996). The degree to which individuals experience change is assessed in five domains, which include: New Possibilities ("I established a new path for my life"), Personal Strength ("I discovered that I'm stronger than I thought I was"), Deeper Relationships ("A sense of closeness with others"), Spiritual-Existential Change ("A better understanding of spiritual matters"), and Appreciation of Life ("I have a greater appreciation for the value of my own life"). The PTGI-X is based on the original 21-item PTGI except that it adds items representing existential change. It utilizes a 6-point Likert response format, with item scorings ranging from 0 ("I did not experience this change as a result of the event") to 5 ("I experienced this change to a very great degree as a result of the event").

#### **Rationale for Usage**

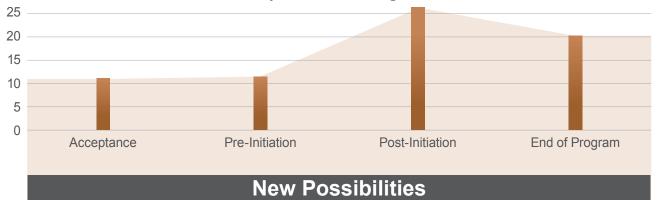
As a core basis of the Boulder Crest philosophy and program content, PTG must be assessed.

### POSTTRAUMATIC GROWTH: PTGI-X

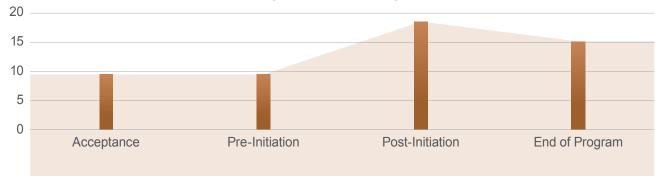


### Spiritual and Existential Change

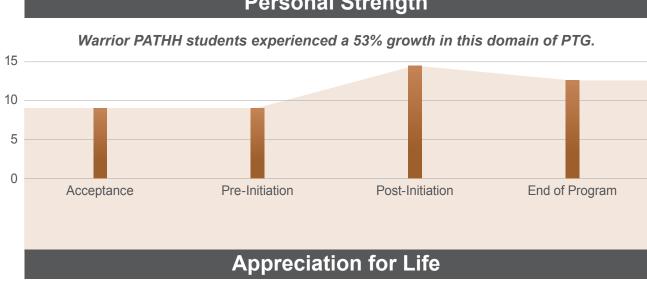
Warrior PATHH students experienced a 76% growth in this domain of PTG.



Warrior PATHH students experienced a 65% growth in this domain of PTG.

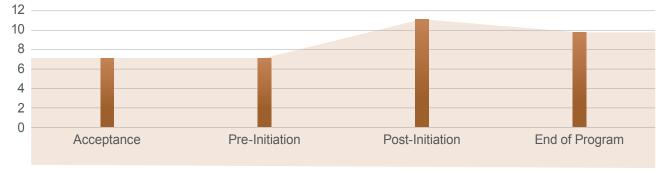


### **POSTTRAUMATIC GROWTH: PTGI-X**



### **Personal Strength**

#### Warrior PATHH students experienced a 32% growth in this domain of PTG.



### **POSTTRAUMATIC GROWTH: ACTIVE READING**

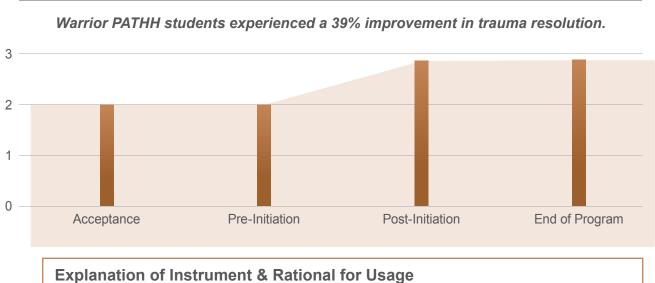
### **Active Reading** Warrior PATHH students experienced a 20% improvement in reading. 3 2 1 0 Acceptance Pre-Initiation Post-Initiation End of Program **Explanation of Instrument**

Developed by Dr. Tedeschi and Dr. Moore for the Program Evaluation.

#### **Rationale for Usage**

Recent research (Tsai, El-Gabalawy, Sledge, W., Southwick, & Pietrzak, 2015) has shown that those who have experienced combat who actively engage in reading have better outcomes and this has been associated with growth after trauma. The Warrior PATHH experience may produce more openness and interest in learning and knowing.

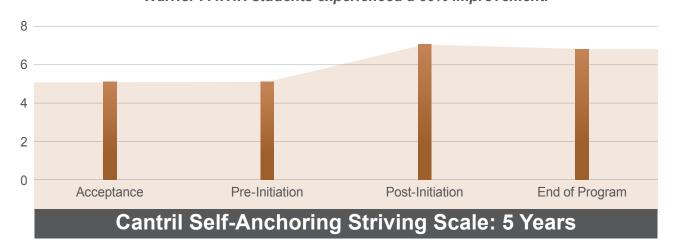
### **POSTTRAUMATIC GROWTH: TRAUMA RESOLUTION**



**Trauma Resolution** 

The Trauma Resolution Item is an attempt to discern the degree to which core beliefs are being reconstructed, since PTG is based to a large extent on the challenge to core beliefs. (Triplett, K. N., Tedeschi, R. G., Cann, A., Calhoun, L. G., & Reeve, C. L. (2012). Posttraumatic Growth, meaning in life, and life satisfaction in response to trauma.

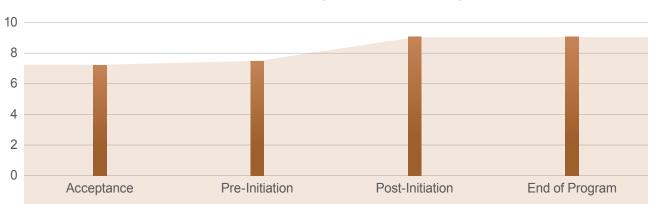
### **POSTTRAUMATIC GROWTH: CANTRIL SELF-ANCHORING STRIVING SCALE**



#### **Cantril Self-Anchoring Striving Scale: Today**

### Warrior PATHH students experienced a 50% improvement.

#### Warrior PATHH students experienced a 19% improvement.



#### **Explanation of Instrument**

The Cantril Self-Anchoring Striving Scale, known as the "Cantril Ladder," asks respondents to think of a ladder, with the best possible life for them being a 10 and the worst possible life being a 0. They are asked to rate their own current lives on that 0 to 10 scale. (Cantril, H., 1965)

#### **Rationale for Usage**

The "Cantril Ladder" is a brief, visual tool for measuring general wellbeing, mental health, and happiness. Specifically, it asks the respondent to reflect on where things stand for them in their present life versus how they see themselves in the future.

### TRANSFORMING LIVES: THE IMPACT OF WARRIOR PATHH IN 2024

#### **QUALITATIVE DATA**

In addition to the quantitative measures noted above, Warrior PATHH utilizes qualitative questions that enable students to share how the program impacted them. This occurs at the end of the 7-day Initiation and at the conclusion of Warrior PATHH (90 days).

Think about how this week has impacted you. Describe the ways in which you have changed and grown over the last seven days?

I have hope. I see my wounds don't define me and what I saw as a curse truly is a blessing. I've learned skills to deal with stuff as it happens and stuff will happen.

I have grown from an absolutely angry person to someone who can love themselves and others.

I came here broken. In the past 7 days, through intense unraveling of my past traumas and sharing with virtual strangers with similar traumas, I found I was not as alone as I thought I was, and that there is hope in healing.

Before Warrior PATHH, I was a man who lost his will, his drive, and his way. The guides here and their teaching of the program has been monumentally life changing. I have joy again and I value my life again. I no longer feel the weight of my past and I feel lighter. Literally everything has changed. I have a positive outlook on life and myself again. I don't feel alone or like I have no purpose in life anymore. I feel well equipped to enjoy life again and love myself as well as others.

I was able to let go of a lot of the pain I was feeling from past experiences and situations. I feel much less stress and anxiety surrounding those experiences. I learned skills to handle any situation that may arise in the future.

I feel like I have let go of the feelings of being a burden, and now have skills to help me continue to grow and have a better life and better relationships.

I arrived here hopeless and feeling like an outsider among these soldiers... But they embraced me and made me feel like part of the team. I found my salvation and my path with these noble heroes. How has participation in the Warrior PATHH program caused you to reconsider how you view your past experiences as well as how you now view your life going forward?

I no longer view my past experiences as the reasons why I am broken but just experiences I have had to learn from. I now can visualize a future that isn't just full of pain and loss.

My past is not my fault. I cannot control how people respond or don't respond to me. I have more confidence in who I am.

These are not things that have happened to me but events that have been done for me. I am not a victim. I am a warrior who will take these experiences and grow and then grow others.

I can view my past experiences as useful now and not the reasons for me being 'terminally misunderstood and messed up.' Truly, for the first time ever, I can see beyond the end of the week. I am worthy of a beautiful life & because I am cared for by you all and others in my life, I am not headed into the future alone. It's exciting to have a sense of hope today. I view the past as the past and my future as a story that I can now choose to define. I am not carrying the dark cloud into each passing day that I assumed I would be stuck with.

I've gone from feeling defeated and damaged to recognizing that I am wiser and stronger because of my past.

Although I have heard some of these principles and practices before it seems that it really clicked. I watched, observed, and listened to everyone share their struggles and also acknowledge their profound growth. Their demonstration of strength has motivated me to apply all these lessons and allowed me to let go of all that heavy baggage I was carrying around.

It's taught me to let it go and be in the present. My future will be lived the same way. I'm very excited to teach others and to continue to change myself.

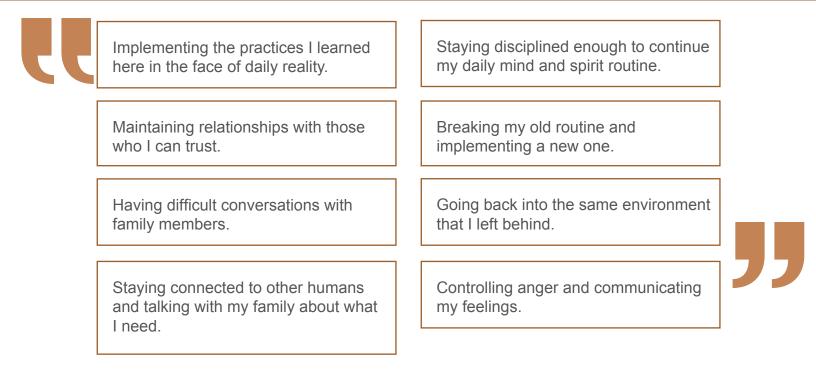
### What do you think your future would look like if you never attended Warrior PATHH?

I would be dead. Simple as that. At some point I would have pulled the trigger. I would have chosen to not be in this life with all this pain, anger, shame, and baggage!

I arrived to WP 182 in a dark place with no point for my future. I felt like a work mule to just one day reach my grave. I was falling down a rabbit hole. Not sure I had the confidence to pull myself out. I do now.

Even though I wasn't having suicidal ideation at the time, I felt the darkness creeping back toward that result and I think without PATHH there was a good chance I would have eventually broken the promise to my wife and daughter and taken my life in the next 5-10 years.

### What do you believe will be your most significant challenge going forward after you leave today?



### What support and resources do you believe would help you overcome these challenges?

The team, my wife, my friends.

My new Sheep Dog family, my wife and kids, and my own grace.

My new community, 3-5, grounding, meditation, and breathing. Asking for help or letting someone know if the load starts to get too heavy. My practices and a group to lean on.

Accountability check-ins, the PATHH app, and continued support from my new warrior brothers and sisters.

I'm confident in myself to overcome obstacles, and if they're just a little too much, I have a huge family of warriors to help me or just be there to listen.

### If you were asked by a friend, family member, or co-worker to describe your experiences during Warrior PATHH, what would you say?



The experience at PATHH must be experienced for yourself to understand the power of connection, unconditional regard, and growth. It is necessary to find a new perspective of healing and growth.

It was a much needed change in perspective of my life. It allowed me the opportunity to feel the pain from my past and the trust I felt for the people around me helped me release the emotions attached to the trauma. It set me free. I found a better way of seeing things, I'm not broken, I don't require fixing, I'm simply finding a way to grow through the trauma so that I'm not just surviving but thriving.

The PATHH brought me peace, grace, and honor. I have an excitement and curiosity for what the future holds. I was able to put down my burdens, and find self love and pride in my story instead of shame. In what ways do you believe you will make the biggest positive impact on your family, community, and country going forward? In other words, how will you make the world a better place?

I will be able to help those who struggle like me and even if the situation is different the struggle is the same.

I will start by improving myself and strengthening the relationships closest to me. I will move forward with more compassion for the other people of the world.

I will not deny the leader I am. I will answer the call in the best way I can that is in line with the goals for my future family. I will seek out and accept future positions where I can serve.

I am now in a much better place to use my story to make real and positive change worldwide. I feel like I now have sure footing.

I plan to continue supporting my friends and family by taking care of myself and acting as guiding light for the people that need me. Through my kids, I want my love to shine through them and into their generation and beyond. I plan to show by example how to take care of themselves and hope my actions will become their habits and their habits become foundational for everyone they encounter through life.

I plan on getting involved in peer support to help warriors heal. I will be running for political office in the next 5-10 years to help grow our community and to help change the world around me. I will touch the lives of those around me and bring peace, calm, and honor to those around me.

I have a lot of love to give and work in senior national security roles. I was not reaching my full potential and am now able to show up daily and deliver. My family will be blessed with this version of me, my relationships will flourish and the impact will be wide spread.

Converting my trauma into a strength and showing others that it can be done.

### **TESTIMONIALS**

Maria, a first-generation American, was born and raised in Fresno, CA. At an early age she faced many struggles, including family and community violence, abuse, neglect, and racism. Nevertheless, at 17 she moved to Vermont and earned a bachelor's degree in criminal justice with minors in Chinese and Sociology. While in college she served in the U.S. Army Reserves and played collegiate soccer.

She commissioned as an officer in the U.S. Army in 2011. Maria was deployed to Afghanistan as a cultural support team leader and as a trainer for the Special Operations Afghanistan Female Tactical Platoon. She served twice as a Company Commander in the U.S. Army and as Senior Logistics Officer for the Airborne Ranger Training Brigade at Fort Moore, GA.

After 13 years of active-duty military service, Maria served in the Wyoming National Guard and as a firefighter for the US Forest Service. She said of her experience with Warrior PATHH: "Warrior PATHH is a transformational program; it restored my hope and gratitude, helped elevate my faith, and guided me out of an extremely painful, agonizing, depressive, anxious space I found myself stuck in. I felt so torn and detached from my life, husband, and family. The Guides and my Warrior sisters (The Grateful Eight) empowered me to permit myself to live again. I felt so lost and confused with all my suppressed emotions. Warrior PATHH helped me purge all of what I kept locked up for 35 years. I now truly live life and seek new opportunities. They restored my ability to fight. Warrior PATHH cultivated a curiosity and wonder in me; created a safe space for me to refit and truly begin my healing journey. Warrior PATHH was the foundational force for peace and healing my heart and mind was seeking for years; Warrior PATHH made me feel seen and understood. I know there is still a lot of hard work ahead of me, but I sincerely believe that Warrior PATHH's thoughtful, purposeful, intentional, quality training saved my life. I am forever grateful for Warrior PATHH in helping me love and appreciate my own story, love and care for my child self, adult present self, and really care for my future self."



Brian served our nation as a Combat Infantry Mortarman and after 12 years, he decided to leave the Army and move back home to Greenville, South Carolina to be closer to family. His brother and mother also served our nation. Brian then took as job as a Corrections Officer and began to struggle. Although he attended wellness programs and services, they didn't help him deal with the struggles in his day-to-day life. It was Brian's mother who reached out to get assistance with training and help for Brian.

After attending the Warrior PATHH program at The Big Red Barn Retreat, Brian's life turned around and he started to thrive. He smiles now and is recognized by all that come to the Red Barn as the favored horticulturist. Recently Brian completed his degree in horticulture, and he can be found in the garden gathering vegetables or pulling weeds on his days off from work or school... and this is after a two-hour drive all the way from Greenville!

Brian continues to help The Big Red Barn Retreat when serving the participants their meals and he is a big part of The Big Red Barn Retreat in other areas including the Friday peer to peer coffee group sessions and resetting the log cabin between PATHH classes. Brian is a positive force in our community, whether he's helping at fundraising events or tending to the garden, Brian's hard work and positive energy make a lasting impact on everyone with whom he comes in contact.

"The Warrior PATHH program really helped me change direction in life. Being able to volunteer when I can and return to The Big Red Barn Retreat is a very positive experience, I feel like it's home" says Brian.



Tom's journey in law enforcement spans decades: Beginning at age 19 and continuing until his retirement at age 55, Tom served in the Seekonk (MA) Police Department. He began as a part-time patrol officer and steadily rose through the ranks, spending a decade as a detective before ultimately retiring at the rank of sergeant.

Before coming to Warrior PATHH, Tom started working out to improve his health. Upon arriving at Travis Mills, Tom was drawn to the newly built Kelly McGaughey Roseberry Health & Wellness Center and worked out every morning at 5 a.m. In conversations with fellow students and PATHH Guides, he shared how exercise had become a key tool for managing his stress and anxiety.

A PATHH Guide joined Tom one morning and later offering a surprising reflection. *"He pointed out that I was beating myself up. I don't go to the gym to make myself better but rather, to hurt myself."* Tom said, then added, *"He was right. I wanted to feel the physical pain to make me feel better, but now I work out to be in shape."* 

The initiation week in Maine was an eye-opening experience, offering him the opportunity to unpack the "rucksack" of not just his law enforcement career, but his entire life journey. He credits Warrior PATHH with saving his marriage. *"We tried marriage counseling, but nothing seemed to work,"* Tom shared. Yet, on the day he returned home, he and his wife went out to lunch and had the most meaningful conversation they'd had in years.

Tom shared with her his positive experience with meditation; within a week, his wife signed up to learn. *"My wife and I are in a way better place than we were before. It's like the first year of our marriage."* Before Warrior PATHH, Tom's relationship with his four daughters was nearly non-existent. *"It's now much better and much more open."* Tom's experience demonstrates how Warrior PATHH leads to deeper relationships.



# JOURNAL ARTICLE ON WARRIOR PATHH: JOURNAL OF LOSS & TRAUMA

## FACILITATING POSTTRAUMATIC GROWTH AMONG U.S. MILITARY VETERANS: EVALUATING AN INNOVATIVE TRAINING PROGRAM

(Conner Kelley, Sarah-Beth Garner, Richard G. Tedeschi, Bret A. Moore, Cameron Alldredge, Jeff Kinman, Taryn Greene, and Gary R. Elkins) JOURNAL OF LOSS AND TRAUMA https://doi.org/10.1080/15325024.2024.2448332

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#### Facilitating Posttraumatic Growth Among U.S. Military Veterans: Evaluating an Innovative Training Program

Connor Kelley<sup>a</sup> (b), Sarah-Beth Garner<sup>a</sup> (b), Richard G. Tedeschi<sup>b</sup> (b), Bret A. Moore<sup>b</sup> (b), Cameron Alldredge<sup>a</sup> (b), Jeff Kinman<sup>b</sup> (b), Taryn Greene<sup>b</sup> (b) and Gary R. Elkins<sup>a</sup> (b)

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#### ABSTRACT

Studies indicate that 87% of U.S. veterans experience at least one potentially traumatic event in their lifetime, with approximately 34% of these being combat-related. There is a need for targeted interventions that engage veteran clients effectively, deliver prompt and long-lasting results, and acknowledge the existential challenges associated with military-related traumatic exposures. Posttraumatic growth (PTG) theory offers a fresh perspective on the aftermath of trauma, emphasizing the potential for psychological growth following such experiences. Boulder Crest Foundation's Warrior PATHH (Progressive and Alternative Training for Helping Heroes) program, based on key tenets of PTG theory, has demonstrated promise in promoting PTG and reducing symptomology (i.e., PTSD symptoms, depression, anxiety, stress, and insomnia) in veteran populations. The current study evaluates the outcomes of a further development (labeled 5.0) of the Warrior PATHH program on 343U.S. veteran participants and quantifies the observed effects this training had on PTG-related outcomes and symptomology across four time points through determination of omnibus significance via ANOVA and evaluation of pre-post effect size and significance via paired samples t-tests. Results of analyses indicated significant medium-to-large effects across all outcomes at time 3 (d=.515-1.722) and maintenance at time 4 with minimal alteration to effect sizes (d=.554--1.57). These findings indicate that the Warrior PATHH 5.0 program is effective in promoting PTG and reducing PTSD and other symptoms over at least a 3-month period. Further research into interventions based on PTG may enhance the understanding of how to enhance outcomes beyond standard trauma therapies for trauma-exposed veterans.

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#### Introduction

Posttraumatic stress disorder (PTSD) is often associated with veterans in media and public thought. This is not a surprising association, as approximately 87% of veterans encounter at least one potentially traumatic event (PTE) during their military service with approximately 34% of these being combat related (Wisco et al., 2014). Further, it is in stark comparison to the general population where the lifetime prevalence is estimated around 70%, suggesting that veterans experience a higher risk of PTE exposure in a much smaller window of time (Benjet et al., 2016). Indeed, among U.S. veterans, PTSD is one of the most common mental health-related diagnoses (Seal et al., 2007). However, it is not the only mental health condition that veterans face as a result of their military service. For example, the prevalence of depression ranges from 11.4% to 15% of veterans depending on deployment history, and depression accounts for 9% of all ambulatory military health-care appointments (Inoue et al., 2023). While civilian rates of anxiety appear comparable on face (e.g., 17.2% of young adults 18-25 reporting a past-year major depressive episode), the comparison becomes more jarring when accounting for veterans making up only 6% of the U.S. total population, suggesting a higher per-capita rate of depressive symptomatology (Doe, 2020; Goodwin et al., 2022). Rates of anxiety are also comparably elevated with 7.9% of veterans screening positively for generalized anxiety disorder compared to only 2.9% of the civilian population (Macdonald-Gagnon et al., 2024). Most distressingly, the unique demands and stressors of military service contribute to prolonged stress, which can have devastating effects on both physical and mental health. For example, veterans are 200% more likely to be diagnosed with any disease within the 5 years following a deployment (Bilmes, 2011). Taken together, these data suggest several areas in which the veteran population faces unique challenges. This is further observed in their response to the treatments associated with these conditions.

## Evidence-based treatments for PTSD, depression, and anxiety in veterans

In an attempt to lessen the detrimental impacts and severity of the aforementioned conditions, a variety of therapeutic approaches have been deemed effective, and have been included in various guidelines for trauma treatment. These evidence-based treatments have literature supporting their efficacy in the treatment of individuals presenting with a single disorder (e.g., major depressive disorder; Gros et al., 2019). However, comorbid disorders threaten the likelihood of these outcomes (Forman–Hoffman et al., 2018). This is especially noteworthy as 64% of veterans have at least one comorbid mental health diagnosis (Knowles et al., 2019). This problem

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is further exacerbated in outcomes of PTSD treatment with high rates of dropout and non-response. Dropout rates from trauma-focused therapies among military personnel are about 27%, and recent studies have led to the conclusion that evidence-based therapies for PTSD are not effective for large proportions of veterans with PTSD, contrary to the recommendations for treatment (Edwards et al., 2021; Steenkamp et al., 2020). It is clear that improvement in trauma-related interventions for military veterans is needed.

#### Posttraumatic growth theory

While it is important to try to mitigate the symptoms and negative outcomes of PTSD, there is another set of outcomes associated with trauma that can be targeted by intervention. Tedeschi & Calhoun's theory of posttraumatic growth (PTG) posits that positive changes can be an outcome of the struggle with a traumatic life crisis in contrast to a return to baseline or diminished functioning (Tedeschi & Calhoun, 1996; Tedeschi & Calhoun, 2004; Tedeschi et al., 2018). This does not minimize the traumatic event itself since PTG is an ongoing process that unfolds alongside traumatic stress and distress. It is also notable that PTG is different from (but related to) other trauma-related constructs like resilience. It is not a natural resilience that leads to PTG, but instead it is an arduous path that can eventually lead to PTG (Tedeschi & Moore, 2021).

According to Janoff-Bulman (1992), trauma can have a psychological impact that threatens cognitive schemas and can deconstruct core beliefs while also allowing freedom in the aftermath of traumatic experiences to reconstruct and grow. This idea of core belief disruption is central to the theory of PTG, as PTG develops through the management of emotional distress and through the formation of new, integrative schemas and core beliefs.

As a construct, PTG is divided into five domains in which change can occur (Tedeschi & Calhoun, 2004). These domains include personal strength, relating to others, new possibilities, appreciation of life, and spiritual/existential change. Examples of PTG domains are often observed in veterans who have experienced loss but also gained something from these experiences, have shared traumatic experiences with other veterans, have richer existential and spiritual outlooks after trauma, and have changed their priorities or search for meaning after exposure to combat.

#### Warrior PATHH intervention

The Warrior PATHH (Progressive and Alternative Training for Helping Heroes) program addresses some limitations facing prominent psychotherapies

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such as tolerability, drop-out rates, and concerns regarding overall effectiveness (Moore et al., 2021). The Warrior PATHH program was developed for U.S. military veterans and is based on the theory of PTG. The program utilizes components of PTG-based intervention alongside other evidence-based psychological principles to help participants reduce symptoms and increase positive outcomes after trauma. In a previous pilot study involving veterans, the Warrior PATHH program was associated with significant, large reductions in symptomatology domains of PTSD symptoms, as well as reductions in insomnia and negative affect (Moore et al., 2021). Further, significant increases were observed in PTG and psychological flexibility. In a follow-up retrospective analysis by Rhodes et al. (2024), similarly significant and large reductions in PTSD symptomatology, insomnia, depression, stress, anxiety, negative affect, and stress reactivity were found at the finish of the program with these changes (apart from anxiety and negative affect) maintaining significance at longer-term follow up. Similar to the original pilot study, significant increases were observed in PTG, self-compassion, and meaning-making, both immediately and at follow up.

The Warrior PATHH program immerses individuals for one week in a comprehensive regimen of PTG-based educational and experiential activities. The Warrior PATHH model adopts a relational approach to intervention, known as expert companionship, and has at least four identifiable elements of existing intervention approaches that qualify it as an integrative intervention-cognitive-behavioral, narrative, existential, and interpersonal (Moore et al., 2021; Tedeschi & Moore, 2021). The program is designed to enable participants to engage with core elements of the PTG therapeutic model. These elements include: (1) psychoeducation about the physiological and psychological effects of trauma, (2) training in emotion regulation techniques, such as mindfulness and meditation, (3) encouragement and modeling of open and natural conversations about trauma experiences, which promote constructive self-disclosure, (4) co-creation of a growthfocused narrative to incorporate fresh perspectives on the participants' past, present, and future, and (5) development of participants' new "missions," which are aimed at applying the insights gained to appreciate the value of life and living courageously (Moore et al., 2021). Those providing this intervention within Warrior PATHH are referred to as peer "guides," military veterans who play a central role in the transformation of participants. These guides are responsible for delivering the intervention to a group of 5-9 participants during the intensive 7-day, in-person portion of the program and continue to offer primary contact and support throughout the multi-month follow-up period. PATHH guides prioritize understanding the trauma and life experiences of the individuals they support from a lens of shared experience rather than applying the psychological theories of mental health professionals. This unique focus and connection is a central strength

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of the Warrior PATHH model and is congruent with emerging literature on the efficacy of peer-led intervention and training (Ranney et al., 2024). The expert companionship approach aims to nurture personal growth across the five elements of PTG through a relationship-oriented framework, encouraging self-reflection and community support. It is also essential to clarify that Warrior PATHH functions as a training program, rather than a psychological treatment program. For a greater theoretical review of the Warrior PATHH program, please refer to *Posttraumatic Growth as an Integrative Therapeutic Philosophy* by Tedeschi and Moore (2021).

#### Methods

The current study was designed to evaluate an effect of time between two baseline points (time 1 and time 2), evaluate change between the beginning and end of the intensive training (time 2 and time 3, respectively), and to evaluate the maintenance of effect between the beginning of the intensive training and 90 days post-training (time 2 and time 4, respectively). This study was deemed exempt from ethical review by the Baylor University Institutional Review Board due to the nature of the data used, which consisted solely of de-identified records of previous Warrior PATHH participants held by the Boulder Crest Institute for Posttraumatic Growth.

#### Participants and sampling

The sample for the present study included 741 individuals who completed the 5.0 edition of Boulder Crest Foundation's (BCF) Warrior PATHH program during the 2022-2023 program year. This program is labeled 5.0 as it is a refinement of previous versions of the Warrior PATHH program. Participants were self-referred and most learned about the program from other veterans and family members familiar with the training program. Participation in the training program was free of cost to all participants, and they received no compensation for completing the training. To be considered eligible for inclusion in the Warrior PATHH program, individuals had to be (a) U.S. military veterans, active military members, or first responders and (b) have a previous history of trauma. Individuals were excluded from participation if diagnosed with any disorder that might require hospitalization (e.g., psychosis, active substance abuse, or active suicidality, as determined by qualitative interview), if they were dishonorably discharged from the military, or if they were involved in active legal rulings. It is important to note that these exclusionary factors were due to facility limitations and do not preclude these populations from benefitting from the application of PTG theory.

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From the total sample of the 2022–2023 program year, cases which had missing data points were removed (see the Missing Data subsection for greater detail), resulting in 510 program completers. Out of these completers, those who were not identified as veterans (e.g., identifying as active military members or first responders) were removed for separate analysis. The final sample for the present study included 343 U.S. combat veterans (male = 267, female = 76; mean age = 45.68 years, SD=9.6). The most common branch of service represented was army (n=192), with the second most frequent being marine corps (n=67). Exposure to previous psychological treatment, and 31 not providing a response. A full account of participant demographic variables can be found in Table 1.

#### Measures

Data collection for all participants occurred at four time points. A twopoint baseline was utilized, with data collected at the time of acceptance into the program (time 1) and at the beginning of the training (time 2). Data were then collected at the end of the 7-day training (time 3) and approximately 90-days after leaving the 7-day portion of the program and receiving access to online support during this time back in the community (time 4). All measurement tools listed were collected by an electronic questionnaire at all four time points.

#### Posttraumatic growth inventory-expanded (PTGI-X)

Developed by Tedeschi et al. (2017), the PTGI-X is a 25-item self-report inventory utilized to gauge the extent to which an individual reports positive psychological changes following a traumatic experience. The

Demographic Variable	Frequency
Gender	
Male	267
Female	76
Age	
Mean	45.68
Standard Deviation	9.6
Branch of Service	
Air Force	43
Army	192
Marine Corps	67
Navy	39
Coast Guard	1
Other Government Agency	1
Previous Psychological Treatment	
Yes	209
No	103
Response Not Given	31

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measure comprises five subscales aligning with the five domains of PTG theory as proposed by Tedeschi and Calhoun (2004). These domains encompass shifts in an individual's perception of new possibilities for life, feelings about relating to others, capacity for personal strength, appreciation for life, and spiritual/existential change. Respondents rate items on a 6-point Likert scale, spanning from *I did not experience this change* to *I experienced this change to a very great degree.* The inventory demonstrates good internal consistency (Cronbach's  $\alpha = .90$ , Tedeschi et al., 2017), and an earlier version has exhibited content validity in prior research (Shakespeare-Finch et al., 2013). Internal validity for the present sample was shown to be excellent (Cronbach's  $\alpha = .95$ ).

#### Posttraumatic Stress Disorder Checklist DSM-5 (PCL-5)

The PCL-5, developed by Weathers et al. (2013), is a 20-item self-report checklist designed to evaluate symptoms of PTSD in accordance with DSM-5 criteria. Respondents rate each item on a 5-point frequency scale, ranging from *not at all* to *extremely*. The instrument has shown strong construct validity (Cronbach's  $\alpha = .92$ ) and good test-retest reliability (r = .57) in samples of veterans (Bovin et al., 2016). Internal validity for the present sample was shown to be excellent (Cronbach's  $\alpha = .92$ ). Clinically significant change on the PCL-5 can be considered a change of 10 or more points between ratings (Monson et al., 2008).

#### Depression, Anxiety, and Stress Scale (DASS)

The DASS, developed by Antony et al. (1998), is a 21-item self-report scale that assesses the presence and severity of symptoms related to depression, anxiety, and stress. Responses are provided on a 4-point frequency scale, ranging from *never* to *almost always*. The scale demonstrates adequate test-retest reliability (Cronbach's  $\alpha = .86-.90$ ; Gloster et al., 2008), and it has exhibited discriminant and convergent validity in clinical samples (Brown et al., 1997). Internal validity for the present sample was shown to be excellent (Cronbach's  $\alpha = .95$ ).

#### Insomnia Severity Index (ISI)

Developed by Bastien et al. (2001), the ISI is a 7-item self-report measure designed to assess insomnia based on the criteria of the DSM-IV and the International Classification of Sleep Disorders, focusing on the preceding two weeks. Responses to the items are collected on a 5-point Likert scale, ranging from *none* to *very severe*. High reliability and validity have been established for the ISI in both clinical (Cronbach's  $\alpha = .91$ ) and community (Cronbach's  $\alpha = .90$ ) samples (Morin et al., 2011). Internal validity for the present sample was shown to be good (Cronbach's  $\alpha = .76$ ).



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#### Analyses

Descriptive statistics at all four time points were calculated for each of the outcome measures. A repeated measures analysis of variance (ANOVA) was then conducted to evaluate omnibus significance. Paired samples *t*-tests were used to determine the statistical significance of the difference in scores on outcome measures from time 1 to time 2 (two-point base-line), time 2 to time 3, time 3 to time 4, and time 2 to time 4. The independent variable in these analyses was the study time point, which had four levels. To minimize the likelihood of Type 1 error a Bonferroni correction was used, resulting in the alternative significance level of p=.015. Dependent variables in these analyses included measures of PTG (i.e., the PTGI-X) and symptomatology domains (e.g., PTSD symptoms, depression, anxiety, stress, and insomnia). Percent change was calculated for statistically significant effects. The proportion of participants (percent of total) reporting change, maintenance, or decrease in total PTG was calculated.

#### Missing data

It was expected that there would be some occurrences of missing data. In those cases, missing data were not included in the analysis and were managed via listwise deletion. This method excludes all cases that include missing data from any of the variables considered in analyses. In total, 32.18% (n=231) of the total cases for the 2022–2023 program year (n=741) were removed via listwise deletion due to missing data, resulting in a total sample of 510. From these 510 participants, those who were not identified as veterans were removed, resulting in the current sample of 343.

#### Results

#### **Omnibus significance testing**

A series of repeated-measures ANOVAs were conducted to evaluate omnibus significance for the various measures over the four time points. Results of analysis indicated a significant main effect of time for the PCL-5 and ISI. The PTGI-X, composed of five subscales and one total scale, was evaluated on an individual scale basis. Analysis indicated a significant main effect of time for the total scale and all subscales. The DASS-21, composed of three subscales describing depression, anxiety, and stress symptoms, was evaluated on an individual scale basis. Analysis indicated a significant main effect of time for all scales.

#### Time 1 to time 2

A paired samples *t*-test was used to compare scores on each outcome variable between time 1 and time 2 to evaluate an effect of time on the selected measures. The average wait time between time 1 and time 2 was 60.39 days, with a standard deviation of 53.14 days. No significant effects were observed with the exception of stress. Results indicated that, in the time between acceptance into the program and the start of training, participants reported a significant increase in stress (stress subscale, DASS-21) from time 1 to time 2 (mean difference [MD] = 2.184, standard error of the mean (SEM) =  $\pm$ .360; *t* (342) = -6.06, *p* < .001; Cohen's *d*=-.245). See Table 2 for further detail.

#### Time 2 to time 3

A paired samples t-test was used to compare scores on each outcome variable between the beginning of the 7-day training to its completion. Results indicated that, immediately following in-person training (time 3), participants reported a significant decrease across all symptomology domains. There was a significant decrease in scores on the PCL-5 from time 2 to time  $3(MD = -24.507, SEM = \pm .556; t (342) = -27.18, p < .001;$ Cohen's d = -1.722; a 58.55% decrease). This reduction is considered clinically significant (Monson et al., 2008). There was a significant decrease in scores on the ISI from time 2 to time 3 (MD = -2.691, SEM =  $\pm .159$ ; t (342) = -16.94, p < .001, Cohen's d = -.99; a 42.04% decrease). There were also significant decreases across the three subscales of the DASS-21 from time 2 to time 3 in depression (MD = -13.277, SEM =  $\pm .561$ ; t (342) = -23.65, p < .001, Cohen's d = -1.551; a 67.04% decrease), anxiety (MD = -7.452, SEM =  $\pm .432$ ; t (342) = -17.24, p < .001, Cohen's d=-.955; a 48.44% decrease), and stress (MD = -12.659, SEM =  $\pm .508$ ; t (342) = -24.92, p < .001, Cohen's d = -1.628; a 56.81% decrease). See Tables 2-4 for additional detail.

Results also indicated a significant increase in scores on the PTG outcome measure (PTGI-X) from time 2 to time 3 (MD = 29.834, SEM =  $\pm 2.064$ ; t (342) = 14.45, p < .001; Cohen's d = .886; a 64.47% increase). Comparison of time 2 and time 3 PTGI-X total scores illustrated that

Tal	ble	2.	Changes	in	symptomo	logy	domains.
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	Time 1		Time 2		Time 3		Time 4	
Outcome	Mean	SD	Mean	SD	Mean	SD	Mean	SD
PTSD	42.43	17.60	41.85	16.24	17.35	11.89	18.61	13.22
Depression	19.44	10.78	19.81	10.42	6.53	6.17	8.26	7.37
Anxiety	14.78	9.08	15.38	8.83	7.93	6.63	6.78	6.49
Stress	20.09	9.08	22.27	8.77	9.62	6.63	10.61	6.61
Insomnia	6.20	2.88	6.40	2.93	3.71	2.48	3.73	2.63

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Table 3.	Symptomatology	domains	effect	sizes:	Time
2 to Tim	e 3.				

Outcome	Effect Size (d)
PTSD***	-1.722
Depression***	-1.551
Anxiety***	955
Stress***	-1.628
Insomnia***	99
* = < .05, ** = <.01, *** =	<.001.

#### Table 4. Percent Change of Outcome Measures.

Comparison Timeframe	Chai	nge
Outcome (Measure)	Direction (+/-)	Percent (%)
Time 2 to Time 3		
PTSD (PCL-5)***	_	58.55%
Depression (DASS-21)***	_	67.04%
Anxiety (DASS-21)***	_	48.44%
Stress (DASS-21)***	_	56.81%
Insomnia ( <i>ISI</i> )***	_	42.04%
Total PTG ( <i>PTGI-X</i> )***	+	64.47%
I. Relating to Others (PTGI-X)***	+	96.11%
II. New Possibilities (PTGI-X)***	+	63.67%
III. Personal Strength ( <i>PTGI-X</i> )***	+	48.17%
IV. Spiritual-Existential Change (PTGI-X)***	+	73.86%
V. Appreciation of Life (PTGI-X)***	+	28.12%
Time 2 to Time 4		
PTSD ( <i>PCL-5</i> )***	_	55.54%
Depression (DASS-21)***	_	58.31%
Anxiety (DASS-21)***	_	55.92%
Stress (DASS-21)***	-	42.36%
Insomnia ( <i>ISI</i> )***	-	41.72%
Total PTG ( <i>PTGI-X</i> )***	+	58.12%
I. Relating to Others (PTGI-X)***	+	82.51%
II. New Possibilities (PTGI-X)***	+	58.50%
III. Personal Strength (PTGI-X)***	+	48.74%
IV. Spiritual-Existential Change (PTGI-X)***	+	61.85%
V. Appreciation of Life (PTGI-X)***	+	29.29%

\* = < .05, \*\* = < .01, \*\*\* = <.001.

75.21% of participants experienced an increase in reported total PTG, 3.2% of participants maintained their report of total PTG, and 21.57% of participants reported a decrease in reported total PTG. Results from paired samples *t*-tests for scores on each subscale of the PTGI-X indicate a significant difference between time 2 to time 3 for relating to others (MD = 10.391, SEM =  $\pm$ .668; *t* (342) = 15.53, *p* < .001, Cohen's *d*=1.017; a 96.11% increase), new possibilities (MD = 6.026, SEM =  $\pm$  .452; *t* (342) = 13.33, *p* < .001, Cohen's *d*=.804; a 63.67% increase), personal strength (MD = 4.219, SEM =  $\pm$ .372; *t* (342) = 11.35, *p* < .001, Cohen's *d*=.706; a 48.17% increase), spiritual and existential change (MD = 7.015, SEM =  $\pm$ .52; *t* (342) = 13.49, *p* < .001, Cohen's *d*=.78; a 73.86% increase), and appreciation of life (MD = 2.184, SEM =  $\pm$ .257; *t* (342) = 8.5, *p* < .001, Cohen's *d* = .515; a 28.12% increase). See Tables 4–6, and for additional detail.

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	Table 5	. Changes	in	posttraumatic	arowth.
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	Time 1		Time 2		Tim	e 3	Time 4		
Outcome	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
PTG Total	46.98	29.55	46.28	29.4	76.12	37.48	73.18	33.44	
I. Relating to Others	11.18	9	10.81	8.61	21.2	11.6	19.73	10.2	
II. New Possibilities	9.61	6.93	9.47	6.88	15.5	8.05	15.01	7.3	
III. Personal Strength	8.84	5.7	8.76	5.78	12.98	6.15	13.03	5.62	
IV. Spiritual- Existential Change	9.36	8.34	9.49	8.25	16.5	9.66	15.36	9.22	
V. Appreciation of Life	7.95	4.005	7.75	4.14	9.93	4.33	10.02	4.06	

Table 6. Growth domains effect sizes: Time 2 to time	Table 6.	Growth	domains	effect	sizes:	Time 2	2 to	time	3.
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Outcome	Effect Size (d)
PTG Total***	.886
I. Relating to Others***	1.017
II. New Possibilities***	.804
III. Personal Strength***	.706
IV. Spiritual-Existential Change***	.78
V. Appreciation of Life***	.515
* = < .05, ** = <.01, *** = <.001.	

#### Time 3 to time 4

A paired samples *t*-test was used to compare scores on each outcome variable between time 3 and time 4. Results indicated that participants reported significant increases in the depression (MD = 1.726, SEM =  $\pm$ .433; *t* (342) = 3.988, *p* <.001, Cohen's *d* = .254; a 26.49% increase) between completion of the 7-day training and follow up. Additionally, a significant continuing decrease in the anxiety scale (MD = -1.155, SEM =  $\pm$ .361; *t* (342) = -3.194, *p* = .002, Cohen's *d* = -.176; a 14.51% decrease) of the DASS-21 was observed. No other significant effects between time 3 and time 4 were observed.

#### Time 2 to time 4

A paired samples *t*-test was used to compare scores on each outcome variable between time 2 and time 4. Results indicated that participants continued to report significant effects across all outcome variables from time 2 to time 4. Decreases in scores on the PCL-5 occurred from time 2 to time 4 (MD = -23.245, SEM =  $\pm.819$ ; *t* (342) = -28.37, *p* < .001, Cohen's *d* = -1.57; a 55.54% decrease). This reduction is considered clinically significant (Monson et al., 2008). Further, decreases in scores on the ISI occurred from time 2 to time 4 (MD = -2.676, SEM =  $\pm.162$ ; *t* (342) = -16.56, *p* < .001, Cohen's *d* = -.96; a 41.72% decrease). Last, decreases occurred on the three subscales of the DASS-21 from time 2 to

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time 4 in depression (MD = -11.551, SEM =  $\pm .529$ ; t (342) = -21.82, p < .001, Cohen's d = -1.28; a 58.31% decrease), anxiety MD = -8.606, SEM =  $\pm .442$ ; t (342) = -19.47, p < .001, Cohen's d=-1.11; a 55.92% decrease), and stress (MD = -11.662, SEM =  $\pm .482$ ; t (342) = -24.182, p < .001, Cohen's d=-1.501; a 42.36% decrease). See Table 2, Table 4, and Table 7 for additional detail.

Increases in overall PTG ratings on the PTGI-X occurred from time 2 to time 4 (MD = 26.901, SEM =  $\pm 1.918$ ; t (342) = 14.023, p < .001, Cohen's d = .854; a 58.12% increase). Comparison of time 2 and time 4 PTGI-X total scores illustrated that 78.42% of participants experienced an increase in reported total PTG, 1.74% of participant maintained their report of total PTG, and 19.82% of participants reported a decrease in reported total PTG. Results from paired samples t-tests for scores on each subscale of the PTGI-X indicate a significant difference between time 2 to time 4 for relating to others (MD = 8.924, SEM =  $\pm$ .596; t (342) = 14.98, p < .001, Cohen's d = .946; a 82.51% increase), new possibilities(MD = 5.542, SEM = ±.452; t (342) = 12.25, p < .001, Cohen's d = .781; a 58.50% increase), personal strength (MD = 4.268, SEM =  $\pm .348$ ; t (342) = 12.26, p < .001, Cohen's d = .748; a 48.74% increase), Spiritual and Existential Change (MD = 5.892, SEM= $\pm.497$ ; t(342)=11.848, p<.001, Cohen's d=.673; a 61.85% increase), and appreciation of life (MD = 2.274, SEM =  $\pm .262$ ; t (342) = 8.67, p < .001, Cohen's d = .554; a 29.29% increase). See Table 4, Table 5, and Table 8, for additional detail.

Table 7. Symptomatology domains	s effect size. Time z to time 4.
Outcome	Effect Size (d)
PTSD***	-1.57
Depression***	-1.28
Anxiety***	-1.11
Stress***	-1.501
Insomnia***	96

Table 7. Symptomatology domains effect size: Time 2 to time 4.

\* = <.05, \*\* = <.01, \*\*\* = <.001.

Table 8.	Growth	domains	effect	sizes:	Time	2	to	time 4.	

Effect Size (d)
.854
.946
.781
.748
.673
.554

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#### Discussion

The present study evaluated the impact of a manualized, PTG-oriented training program for U.S. veterans on various growth and symptomatology-related outcome variables. Specifically, it evaluated the most recent revision of the Warrior PATHH program (Warrior PATHH Version 5.0), a training which has previously shown effectiveness in promoting PTG and reducing the severity of symptoms of PTSD, anxiety, and depression reported by U.S. veterans (Moore et al., 2021; Rhodes et al., 2024). The Warrior PATHH program is not conceptualized as a psychotherapeutic intervention but rather as a peer-facilitated training program developed to facilitate PTG and its five domains in addition to helping veterans develop the tools necessary to increase their capacity to regulate thoughts, emotions, and actions in a civilian environment. Additionally, as discussed by Rhodes et al. (2024), the integrative nature of the training means that many elements of empirically-based PTSD treatments have been incorporated into the design. This incorporation may be a contributor to the magnitude of symptom reduction observed, especially in the domain of PTSD.

#### Immediate outcomes—changes during the 7-day program

Warrior PATHH participants reported statistically significant immediate (post-day 7) changes in both PTG and symptom reduction. Specifically, overall ratings of PTG, via the expanded version of the PTGI-X, increased by an average 64% from the beginning to the end of the seven days of training, suggesting significant enhancement of PTG domains immediately following the in-person training. This is further supported by significant increases in all component scales of the PTGI-X. Of note, increases across the domains of the PTGI-X resemble previous studies, with relating to others being the largest effect and appreciation of life being the smallest effect (Moore et al., 2021; Rhodes et al., 2024). Calculation of the proportion of participants reporting increases, maintenance, and decreases in total PTG suggests that the distribution of scores on the PTGI-X has a left skew, with three times the number of individuals reporting growth than maintenance or decline of reported total PTG.

Participants also reported statistically significant reductions in symptom severity across all outcome measures at the end of the 7-day training compared to the start: a 59% reduction in scores on the PCL-5, a 42% reduction in scores on the ISI, a 67% reduction in scores on the depression scale of the DASS-21, a 48% reduction in scores on the anxiety scale of the DASS-21, and a 57% reduction in scores on the stress scale of the

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DASS-21. Reductions on the PCL-5 were considered clinically significant and suggest change in participant functioning congruent with PTG theory (Monson et al., 2008; Tedeschi & Calhoun, 2004).

These results are congruent with previous evaluations of the Warrior PATHH program and indicate a successful content revision while maintaining observed impacts on PTG, PTSD symptomology, insomnia symptoms, and ratings of depression, anxiety, and stress (Moore et al., 2021; Rhodes et al., 2024).

#### Effects over time after completion of the 7-day training

Intriguingly, a statistically significant continuing decrease was observed with self-reported anxiety between completion of the 7-day training to approximately 90 days in the community. This effect likely suggests that post-training participants have gained skills which preserve gains experienced in the program and further enhance them. However, this effect should be further explored with other methods before clear conclusions may be drawn. Further, there was a statistically significant increase in depression ratings of the DASS-21 between time 3 and time 4. Though the changes reported were statistically significant, it is unclear if these were clinically significant. It would also be useful to examine the experiences of particular individuals who reported substantial negative changes to determine the practical significance of these differences.

# Long-term outcomes: The overall change from start of the program to 3 months in the community

Perhaps the most notable outcome of the current study is the degree to which effects post-training were maintained at 90 days. In comparing the effect sizes of Tables 3 and 6 with Tables 7 and 8, there is little variation noted in the growth or symptomology domains. This is congruent with the distribution of change at time 3 and suggests a percentage of the sample continuing to experience PTG following completion of the intensive training. Reductions in the PCL-5 maintained clinical significance (Monson et al., 2008). Overall, the lack of variation between immediate outcomes and those at 90 days suggests that benefits of Warrior PATHH persist beyond the week of in-person training. This provides further support for the depth of the Warrior PATHH program's effects and is congruent with previous studies (Moore et al., 2021; Rhodes et al., 2024).

#### Limitations and future directions

The current study aimed to expand upon findings of previous studies of the Warrior PATHH program, notably with the inclusion of a two-point

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baseline period to evaluate pre-training change (Rhodes et al., 2024). However, the present study was not without its limitations. To begin, a deeper understanding of the relationship between PTSD and PTG may be helpful in illustrating the role that PTG has in assisting traumaexposed veterans. Previous research has outlined a complicated relationship between PTSD and PTG, underlining the necessity for greater clarity in the relationship between these two experiences/concepts (McLean et al., 2013; Pietrzak et al., 2010), especially considering how it may change over time. For example, in this study initial high levels of PTSD were associated with low levels of PTG, while after the Warrior PATHH training, low levels of PTSD were associated with high levels of PTG. Future studies may also benefit from greater evaluation of participant demographics, including diagnoses and time since discharge from service, among other variables which may be evaluated for their impact on outcomes. Finally, the current study was without a control condition. The addition of a control condition in future studies will help to further evaluate the observed effects and determine the magnitude of gains attributable to the training itself as compared to control. Despite this limitation, the current results demonstrate robust pre-post effects consistent with previous research and suggest that, while the exact contributors to the effect cannot be accounted for, a substantial replicable effect appears to be present.

#### Conclusion

The current study succeeded in documenting a lack of statistically significant change during the pre-training period (with the exception of increased stress ratings), in evaluating and documenting the significant effects observed between the 7-day period of training, and in evaluating and documenting the significant effects observed between the start of training and the final measurement point of 90 days. Findings of this magnitude underscore the effectiveness of the Warrior PATHH 5.0 program in fostering PTG and mitigating symptomology related to PTSD, insomnia, depression, anxiety, and stress in U.S. military veterans with a history of trauma exposure. These outcomes also illustrate the effective revision of the Warrior PATHH program, with documented effects exceeding previous studies of past versions (Rhodes et al., 2024). The study's results, particularly in reducing PTSD-related symptoms, carry important implications for broader public health discussions. PTSD is a major public health concern that not only impacts veterans but also numerous individuals who have undergone trauma. The observed benefits of symptom reduction through the Warrior PATHH 5.0 training program suggest a potential PTG-based training opportunity applicable to populations beyond U.S. veterans, though this must be supported by future research.

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In conclusion, the results of this study demonstrated significant improvements in PTG immediately following the Warrior PATHH 5.0 training. These improvements were well maintained through 90 days, indicating the potential for enduring positive effects. Participants additionally showed a significant reduction in symptoms related to PTSD, depression, anxiety, stress, and insomnia immediately following the training, with reductions well maintained at follow-up assessment. These effects, taken together, indicate that the Warrior PATHH 5.0 program, like its predecessors, provides benefits to veterans extending beyond increases in PTG and addressing many of the issues that veterans face.

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#### **Disclosure statement**

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#### Data availability statement

Participants of the Warrior PATHH program did not provide written consent to have data shared publicly. Due to the sensitive nature of the research, supporting data is not available.

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# **BOULDER CREST FOUNDATION SCIENTIFIC ADVISORY PANEL**

The development and evolution of all aspects of Warrior PATHH is supported by the Boulder Crest Foundation Scientific Advisory Panel. The Panel includes luminaries from across the field of psychology.



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# WHAT'S NEXT

2025 represents the eleventh year of Warrior PATHH delivery, and our commitment to continuous improvement and research is as steadfast as ever. To that end, we have identified five actions in 2025:

# IMPLEMENT 7.0 EDITION OF WARRIOR PATHH CURRICULUM

Based on feedback from our students and instructors, we have made significant changes to enhance the curriculum for 2025, in the form of edition 7.0.

## **ENHANCE** myPATHH CONTENT

The myPATHH app continues to be an incredible success since we rolled it out with the 5.0 curriculum. Student and Alumni engagement levels continue to be strong in both the community and learning areas of the app. 2025 will see a revamp of the life-long learning areas and a continued effort to build new content and features throughout the year.

## **CONTINUE RESEARCH COLLABORATION WITH BAYLOR**

In 2022, Boulder Crest began collaborating with Dr. Gary Elkins of Baylor University, to provide anonymized data from Warrior PATHH participants for study and investigation. This work, which will continue in 2025, has been the subject of multiple journal articles, and made major contributions to the field of PTSD-related programs for the military and first responder communities.

## **CONTINUE GROWING THE CAPACITY OF THE NETWORK**

Warrior PATHH continues to experience substantial growth in the number of applications, the result of students spreading

the word about their transformative experiences. To keep pace with growing demand our partners have continued to increase the number of programs they will deliver and students they will serve this year. This expansion is made possible by support from the Avalon Action Alliance. As a result, we anticipate growing the number of students served from 1,120 in 2024 to nearly 1,200 in 2025.









## **CONTINUE IMPLEMENTATION OF STAFF SERGEANT FOX SUICIDE PREVENTION GRANT FROM THE DEPARTMENT OF VETERANS AFFAIRS**

In 2022, the Department of Veterans Affairs established the Staff Sergeant Fox Suicide Prevention Grant Program, focused on providing resources for communitybased suicide prevention efforts. Two Warrior PATHH delivery organizations — Boulder Crest Foundation and Permission to Start Dreaming Foundation — received grants through this program and are in the third year of implementing the grant. We are hopeful that this critical program is extended and expanded in 2025, and could support the delivery of Warrior PATHH across all of our partner organizations. "BEFORE WARRIOR PATHH, I WAS A MAN WHO LOST HIS WILL, HIS DRIVE, AND HIS WAY. THE GUIDES AND THEIR TEACHING OF THE PROGRAM HAS BEEN MONUMENTALLY LIFE CHANGING.
I HAVE JOY AGAIN AND I VALUE MY LIFE AGAIN. I NO LONGER FEEL THE WEIGHT OF MY PAST AND I FEEL LIGHTER."

- WARRIOR PATHH GRADUATE





# "THERE IS NOTHING NOBLE IN BEING SUPERIOR TO YOUR FELLOW MAN; TRUE NOBILITY IS BEING SUPERIOR TO YOUR FORMER SELF." — ERNEST HEMINGWAY

Warrior PATHH is the nation's first-ever program designed to cultivate and facilitate Posttraumatic Growth in combat veterans and first responders, and train these remarkable men and women to transform times of deep struggle into profound strength and lifelong growth. Over the course of 3 months, beginning with 7 days of immersive and intensive training, students are able to make peace with their past, learn to live in the present, and begin planning for a great future – full of passion, purpose, and service – here at home.

"Warrior PATHH proceeds through the intervention steps described by Tedeschi and McNally (2011), and Calhoun and Tedeschi (2013), to facilitate Posttraumatic Growth. These steps derive from the model of the Posttraumatic Growth process that is well-validated in research studies of military service members and other trauma survivors."

– Dr. Richard Tedeschi, Psychologist and Co-Founder of Posttraumatic Growth

"Words cannot describe the effect and internal shift inside. I am, for the first time in my life, not at war within. The peace and calm feeling is foreign to me entirely, but wonderful. Here, you have discovered how to give a person their soul back."

- Warrior PATHH Graduate