

Warriors' Ascent Follow-Up Report

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Executive Summary

Warriors' Ascent was founded in 2014 to help veterans and first responders with post-traumatic stress improve their quality of life. As part of the program, groups ("cohorts") of up to 18 participants meet for five days at a retreat facility. Throughout the retreat, participants engage in a wide variety of activities to promote insight, emotion regulation, interpersonal risk-taking, mindfulness, creativity, and physical health. In 2018, the program was substantially modified in order to emphasize evidence-based treatments for post-traumatic stress disorder.

For the past four years we have been collecting pre-participation data (e.g., demographics, combat experiences, psychological functioning) from veterans who participate in Warriors' Ascent. During the past year we have obtained follow-up data, including graduates' current psychological functioning and program feedback.

This report presents data collected from participants before and after their participation in the program. Data includes psychological distress and symptoms of moral injury, post-traumatic stress, depression, and alcohol use. Program elements found to be most helpful, perceived program impact on overall quality of life, and participant recommendations for improvement are also presented. A summary of salient findings is as follows:

1. Scores on measures of post-traumatic stress, depression, and alcohol use were lower following participation in the program
2. Participants found *Cognitive-Behavioral instruction*, *Mindfulness and Yoga, Meditation*, the *Leap of Faith* exercise, and *Ceremony for the Dead* to be the most helpful activities.
3. Participants indicated that all group processes (e.g., cohesiveness, universality, modeling, etc.) were *very helpful*.
4. Compared to participants in the earlier Warriors' Ascent program (2016-2017), those in the revised program (2018-2019) were more likely to say that they would refer a friend to the program.
5. When asked to make recommendations for future program revisions, participants suggested: improving transportation, lodging, and disability accommodations, developing aftercare initiatives, and offering follow-up programs to alumni.

Warriors' Ascent Program Overview

Warriors' Ascent (WA) was founded approximately five years ago to address the needs of veterans with post-traumatic stress (PTS), depression, suicidal ideation, substance use disorders, and other mental health problems. WA's flagship program is a five-day residential retreat known as the *Academy of Healing*, aimed at teaching psychological and behavioral coping skills to veterans with these problems. Participants include Vietnam, Gulf War, Iraq, and Afghanistan veterans, as well as active-duty members of all branches of the armed services. To date, approximately 438 individuals across 36 cohorts have participated in WA.

Retreats take place approximately six times per year at Heartland Retreat Center in Parkville, Missouri. Between four and 18 veterans participate in each cohort. Participants remain onsite for the entire five days and four nights (Monday morning through Friday morning). Room and board are provided to all participants at no charge. Retreat staff include psychologists, nutritionists, yoga and meditation instructors, artists, and peer mentors from previous WA cohorts.

Didactics include evidence-based cognitive-behavioral strategies to promote mental health, leadership, nutrition, mindfulness, substance use and misuse, life balance, healthy relationships, and psychological dynamics. Experiential activities include the *Leap of Faith* (a ropes course activity), *Ceremony for the Dead* (a memorial service), yoga, meditation, and other lifestyle practices. Veterans participate in all activities as a group to promote vulnerability, empathy, and the development of adaptive interpersonal skills.

The Program Evaluation Process

In June 2015, WA (then operating as "Save-A-Warrior") approached The University of Kansas Medical Center for assistance in collecting information from their participants, regarding their military and combat experiences, psychological functioning (i.e., depression, PTS), alcohol use, and demographics. Bruce Liese, PhD (Professor of Family Medicine and Psychiatry) became chair of a work group of faculty members volunteering to assist WA with data collection. This work group spent approximately six months reviewing various surveys and inventories for inclusion in a battery discussed in detail later in this report.

In mid-2018, WA Director Mike Kenny, approached Dr. Bruce Liese to review and revise the original WA program. Dr. Liese agreed to expand his role in WA as of November 2018, funded by a contract between WA and the KU Cofrin Logan Center for Addiction Research and Treatment (CLC), where he is Clinical Director. The following objectives were established for WA participants during a full-day retreat at CLC with Mike Kenny and several colleagues in

December of 2018. These objectives improve psychosocial functioning by targeting cognitive-affective, behavioral, and interpersonal factors.

WA Objectives		
Cognitive-affective	Behavioral	Interpersonal
<ul style="list-style-type: none"> • Identify and describe differences between thoughts and emotions • Identify at least two salient positive and negative emotions <i>personally</i> experienced • Identify various thought processes (e.g., core beliefs, automatic thoughts, schemas) • Identify and describe differences between adaptive and maladaptive thoughts • Describe distal and proximal antecedents to problematic thoughts, emotions, and behaviors • Complete at least one functional analysis • Identify and distinguish between System I and System II thinking • List at least two personal strategies for managing negative emotions • Complete four daily thought records (DTRs) during the WA program 	<ul style="list-style-type: none"> • List at least two healthy self-care behaviors (e.g., meditation, yoga, nutrition, sleep, exercise, supportive relationships, etc.), and commit to maintaining at least one of these behaviors following completion of WA • Explain the process of behavioral activation and identify at least one set of valued behaviors that will be maintained following completion of WA 	<ul style="list-style-type: none"> • Identify and label at least two salient positive and negative emotions <i>experienced by close others</i> (e.g., friends, family, community members) • Identify at least two reliable supportive relationships • Identify one serious relationship problem and list steps to addressing this problem • Describe the significance of “trust” and “mistrust” in the development of healthy, adaptive vulnerability • Identify at least two community resources for support following completion of WA

To accomplish objectives, new activities were implemented, including training in the cognitive-behavioral (CB) model of human behavior; instruction regarding distal and proximal antecedents of present functioning; application of the CB model to self and others; self-monitoring practice (e.g., thoughts, feelings, and behaviors); and effective communication practice (e.g., assertiveness, self-disclosure). Most foundational activities were continued, including: Leap of Faith, Ceremony for the Dead, yoga, meditation, artistic expression, and nutrition.

In March 2019, WA Director (Mike Kenny) invited Dr. Liese to attend a meeting with Caleb Jackson, Executive Director of the David Woods Kemper Veterans Foundation, to discuss future WA funding. During that meeting, it was agreed that future support for WA would require the collection and analysis of data to measure WA program outcomes. Following receipt of funding from the Kemper Foundation, Mike Kenny asked Dr. Liese and CLC to collect data necessary for measuring WA outcomes for those who have participated in the program since 2015. The current study was developed to determine participant outcomes following participation in WA.

Data Collection and Analyses

Data Collection

Military veterans interested in taking part in the study were administered detailed survey battery at the outset of the retreat program. This survey battery consisted of various instruments, designed to collect demographic information, as well as data regarding combat experiences, trauma history, psychological functioning (e.g., PTS, depression), and alcohol use. Pre-participation data collection began in February 2016 and has been collected for all subsequent cohorts.

Between October and November 2019, a follow-up survey battery was sent by email to all veterans who had graduated from WA and completed pre-participation surveys (n = 139). Identical instruments from pre-participation surveys were used to assess psychological functioning. Follow-up surveys inquired about the perceived helpfulness of program components (e.g., activities and group processes), the degree to which participants achieved program objectives, and whether or not participants would take part in future programming or refer a friend to WA. Participants provided information about their follow-up care routines, recommendations for improving WA, estimated commercial value of WA, and the impact of the WA program on their overall well-being. Those who completed both pre-participation and follow-up surveys were compensated with a \$15 electronic Amazon gift card.

Pre-participation and follow-up consent and data collection took place via Research Electronic Data Capture (REDCap). Participants were provided with unique identifier codes to match data from pre-participation and follow-up. All data were protected and stored safely on encrypted University of Kansas Medical Center servers. Data were de-identified prior to analyses.

Surveys and Psychological Measures

Pre-participation surveys included the following measures:

- Background survey – Age, gender, race, education, employment, relationship status, religious/spiritual orientation, military service, deployment, injuries, etc.
- Combat Experiences (DRRI-2; Vogt et al., 2012) – Combat patrols, assaults, witnessed others wounded/death, exposed to hostile/friendly fire, was injured/wounded, IEDs
- Moral Injury (MIQ-M; Currier, 2015) – feel betrayed, revenge, felt guilt about others' harm, death of innocents, didn't save a life, survivor' guilt, death of children, chaos, sexual trauma
- Post-Traumatic Stress (PCL-5; Weathers, 2015) – Account of traumatic event; repeated, disturbing, unwanted memories, dreams; nightmares; avoidance; self-blame; feeling distant, cut off, hyper-alertness; easily startled; difficulty concentrating; sleep problems
- Depression (PHQ-9; Kroenke et al., 2001) – Decreased interest or pleasure; feeling down, depressed, hopeless; sleep problems; decreased energy; appetite; difficulty concentrating; lethargy; suicidal ideation
- Alcohol Use Disorders Identification Test (AUDIT; Babor, 2001) – Frequency, quantity, difficulty stopping, failed to achieve goals, blackouts, morning consumption, injuries, others' concern
- Adult Attachment Style (ECR; Brennan, 1998) – Secure vs. insecure (anxious, avoidant); worry about rejection and close relationships; pulling away from others; worry that others don't care; discomfort with opening up; wish for reciprocity; pulling back from others

Follow-up surveys included the following measures:

- Moral Injury (MIQ-M; Currier, 2015)
- Post-Traumatic Stress (PCL-5; Weathers, 2015)
- Depression (PHQ-9; Kroenke et al., 2001)
- Alcohol Use Disorders Identification Test (AUDIT; Babor, 2001)
- Warriors' Ascent Program Evaluation – Perceptions of WA activities, perceived program effectiveness, and helpfulness of interpersonal processes. Likelihood of referring others, current well-being practices, recommendations for improvement.

Data Analyses and Results

Data were analyzed using IBM SPSS Version 25. Descriptive statistics were used to evaluate participant demographics, perceptions of WA activities, helpfulness of group processes, and achievement of program objectives. Ninety-five percent confidence intervals are reported in supplementary tables to indicate the dispersion of ratings for post-participation evaluation scores. Inferential statistics were used to determine significant differences in psychological functioning between pre-participation and follow-up. Inferential statistics were also used to explore differences in the likelihood of referral and future participation between participants of earlier (2016-2017) and revised (2018-2019) WA programs.

Response Rate and Demographics

One-hundred-thirty-nine subjects completed pre-participation survey, and 50 (36%) of these subjects completed the follow-up survey. We refer to those who did not complete follow-up surveys as “non-participants” (n = 89), and those who completed follow-up surveys as “participants” (n = 50). Of the 50 participants, 12 graduated from WA in 2016, 22 in 2017, 9 in 2018, and 7 in 2019.

Those who completed pre-participation surveys (n = 139) were between 24 and 74 years of age (M = 42.2, SD = 10.25). Eighty-two percent of participants were male (n = 113). A majority of participants were Caucasian (80.4%), followed by African American (7.2%), and other (5.1%). All but two had earned at least a high school diploma or equivalent. Over one-third (35%) had completed four-year college. Fourteen percent of those who completed pre-participation surveys earned a post-graduate degree. Pre-participation PCL-5 (M = 66.11) and PHQ-9 (M = 14.85) scores indicated severe PTS and moderately severe depression. Pre-participation AUDIT scores indicated hazardous drinking (M = 9.59). Independent samples t-tests were used to compare demographics and pre-participation psychological functioning scores between follow-up non-participants and participants. No significant differences were observed. Demographics for pre-participation, non-participants, and participants are reported in Table 2 on the following page.

Changes in Psychological Functioning

Paired samples t-tests were used to determine differences in pre-participation and follow-up scores for moral injury (MIQ-M), PTS (PCL-5), depression (PHQ-9), and alcohol use (AUDIT). Lower post-participation scores were reported for depression, post-traumatic stress, and alcohol use. PCL-5 scores were higher at pre-participation (M = 67.59) than post-participation (M = 59.5); PHQ-9 scores were higher at pre-participation (M = 15.23) than post-participation (M = 11.37), and; AUDIT scores were higher at pre-participation (M = 8.26) than post-participation (M = 5.12). MIQ-M scores increased from pre-participation (M = 37.89) to post-participation (M = 43.47). Results are reported in Table 1.

Table 1
Changes in Psychological Functioning

Instrument	Pre	Post	Mean Dif.	t	df	95% CI Dif.	Sig.	Cohen's <i>d</i>
Moral Injury (MIQ-M)	37.89	43.47	5.58	3.651	37	[2.48, 8.66]	.001	.46
PTS (PCL-5)	67.59	59.5	-8.09	-3.246	43	[-13.12, -3.06]	.002	.41
Depression (PHQ-9)	15.23	11.37	-3.84	-4.710	42	[-5.51, -2.21]	.000	.53
Alcohol use (AUDIT)	8.26	5.12	-3.14	-3.360	33	[-5.10, -1.24]	.002	.45

Medium effect sizes were found for program participation for moral injury ($d = .46$), PTS ($d = .41$), depression ($d = .53$), and alcohol use ($d = .45$).

Table 2
Demographic Comparisons Between Pre-participation, Follow-up Non-participants, and Follow-up Participants

Age	M		SD		Range		Min		Max	
Pre-participation (n = 139)		42.2		10.25		50		24		74
Follow-up Non-participants (n = 89)		42.3		10.58		50		24		74
Follow-up Participants (n = 50)		42		9.75		44		24		68
Gender	Pre-participation		Non-participants		Participants					
	N	%	N	%	N	%	N	%	N	%
Male	113	81.9	71	79.8	42	85.7				
Female	25	18.1	18	20.2	7	14.3				
Race	Pre-participation		Non-participants		Participants					
	N	%	N	%	N	%	N	%	N	%
Caucasian	111	80.4	70	79.5	41	82				
Black or African American	10	7.2	7	8.0	3	6				
Asian	2	1.4	2	2.3	-	-				
Hispanic	5	3.6	3	3.4	2	4				

Native American	-	-	-	-	-	-
American Indian	3	2.2	1	1.1	2	4
Other	7	5.1	5	5.7	2	4
Education	Pre-participation		Non-participants		Participants	
	N	%	N	%	N	%
Grade 8 or lower	1	.7	1	1.1	-	-
Some High School	1	.7	1	1.1	-	-
High School Diploma or GED	6	4.3	4	4.5	2	4
Trade or Professional School	15	10.8	10	11.2	5	10
Some College	37	26.6	20	22.5	17	34
Associates Degree	30	21.6	20	22.5	10	20
Bachelor's Degree	31	22.3	23	25.8	8	16
Master's Degree	14	10.1	7	7.9	7	14
Doctoral Degree	4	2.9	3	3.4	1	2
Pre-participation Functioning	Pre-participation		Non-Participants		Participants	
	M	95% CI	M	95% CI	M	95% CI
Moral Injury (MIQ-M)	37.2	[35.14, 39.25]	36.19	[33.62, 38.77]	38.86	[35.39, 42.34]
PTS (PCL-5)	66.11	[62.75, 69.47]	64.63	[60.27, 68.98]	68.55	[63.17, 73.94]
Depression (PHQ-9)	14.85	[13.65, 16.06]	14.4	[12.94, 15.86]	15.63	[13.46, 17.79]
Alcohol use (AUDIT)	9.59	[7.91, 11.3]	10.41	[8.21, 12.6]	8.14	[5.5, 10.77]

Helpfulness of Activities

WA activities were rated by participants using a five-point Likert Scale (“not at all helpful” to “extremely helpful”). *CBT Lecture* (M = 4.16), *Mindfulness and Yoga* (M = 4.52), *Leap of Faith* (M = 4.45), *meditation* (M = 4.4), and *Ceremony for the Dead* (M = 4.16) were rated by participants between (4) “very helpful” and (5) “extremely helpful.” *Artistic Expression sessions* (M = 3.51), and *movies* (M = 3.49) were rated as least helpful. Results are reported in Table 3.

Table 3

Perceived Helpfulness of WA Program Activities

Programming	Mean Rating	95% CI
Mindfulness and Yoga practice	4.52	[4.31, 4.74]
Leap of Faith	4.45	[4.22, 4.69]
Meditation	4.40	[4.16, 4.65]
Ceremony for the Dead	4.16	[3.86, 4.46]
CBT Lecture	4.16	[3.91, 4.40]
Physical Health – Aikido	3.88	[3.38, 4.39]
Labyrinth	3.76	[3.43, 4.09]
Daily Thought Records	3.70	[3.40, 4.00]
Brene Brown Ted Talk	3.65	[3.30, 4.00]
Artistic Expression	3.51	[3.10, 3.93]
Movies	3.49	[3.13, 3.84]

Helpfulness of Group Processes

Participants rated the helpfulness of 11 group processes on a seven-point Likert scale (“extremely harmful” to “extremely helpful”). *Being with others with similar experiences* was rated as the most helpful group process (M = 6.29). Similar ratings were expressed for *altruism* (M = 6.20) and *imparting of information* (M = 6.18). All group processes were rated near or above (6) “very helpful.” Results are reported in Table 4.

Table 4
Helpfulness of Group Processes

Group Process	Mean Rating	95% CI
Being with others with similar experiences	6.29	[6.06, 6.51]
Being able to help others like me (<i>altruism</i>)	6.20	[5.96, 6.45]
Being taught why my problems exist, and how I might resolve them (<i>imparting of information</i>)	6.18	[5.90, 6.46]
Feeling like I'm not the only one with my problems (<i>universality</i>)	6.14	[5.86, 6.42]
Learning new skills by watching others practice these skills (<i>imitative modeling</i>)	6.10	[5.86, 6.35]
Physical nature of activities	6.08	[5.77, 6.39]
The cohesiveness of the group working together (<i>group cohesiveness</i>)	6.04	[5.81, 6.28]
Watching others do well gave me hope for myself (<i>instillation of hope</i>)	5.98	[5.70, 6.26]
Experiencing relief as a result of expressing my feelings openly to others (<i>catharsis</i>)	5.96	[5.68, 6.24]
Seeing that I am part of a much larger universe – existentially (<i>existential factors</i>)	5.88	[5.59, 6.16]
The leadership qualities of those in charge of the program	5.84	[5.51, 6.17]

Achievement of Program Objectives

The degree to which participants achieved program objectives was measured using a five-point Likert scale (“completely false” to “completely true”). Participants were most likely to achieve cognitive-behavioral objectives, including *I understand the relationship between my thoughts, feelings, and behaviors* (M = 4.39) and *I have better control over my thoughts, feelings, and behaviors* (M = 4.31). *Completing daily thought records* (M = 3.60) and *using art for emotional benefit* (M = 3.33) were least likely to be achieved.

The impact of WA on overall functioning was assessed using an identical Likert scale with a single item: *My experience in Warriors' Ascent was instrumental in my becoming a more healthy person* (M = 4.31). This was rated by between (4) “somewhat true” and (5) “completely true.” Results are reported in Table 5.

Table 5
Participant Achievement of Program Objectives

Outcome	Mean Rating	95% CI
I understand the relationship between my thoughts, feelings, and behaviors	4.39	[4.19, 4.59]
I have better control of my thoughts, feelings, and behaviors	4.31	[4.14, 4.47]
I have a healthier, more realistic view of life	4.29	[4.09, 4.48]
I know how to use meditation to heal myself	4.14	[3.88, 4.41]
I have a greater sense of purpose	4.06	[3.81, 4.31]
I have a greater sense of belonging	3.96	[3.68, 4.23]
I am less ashamed of myself and who I am	3.88	[3.62, 4.14]
I am less likely to have conflict with others	3.85	[3.60, 4.11]
I am less likely to make bad decisions	3.78	[3.52, 4.03]
Some of my emotional wounds have been healed	3.76	[3.48, 4.03]
I know how to complete a Daily Thought Record	3.60	[3.28, 3.93]
I know how to use art for emotional benefit	3.33	[3.00, 3.65]
My experience in Warriors' Ascent was instrumental in my becoming a more healthy person	4.31	[4.09, 4.52]

Follow-Up Care and Current Meditation Practice

Forty-three participants indicated that they were involved in some form of follow-up care. This included therapy (e.g., individual or group counseling, equine therapy); mindfulness-based practices (e.g., meditation, journaling); physical fitness (e.g., yoga, nutrition, weightlifting); community service (i.e., peer mentorship, volunteering); fellowship with other veterans (e.g., WA alumni events, Wounded Warrior Project); creative hobbies (e.g., guitar, art); pharmacotherapy;

other retreats, programs, or self-help seminars; and spiritual practices. The most frequently engaged form of follow-up care was therapy (n = 22), followed by exercise (n = 11), and mindfulness practices (n = 8). Results are reported in Figure 1.

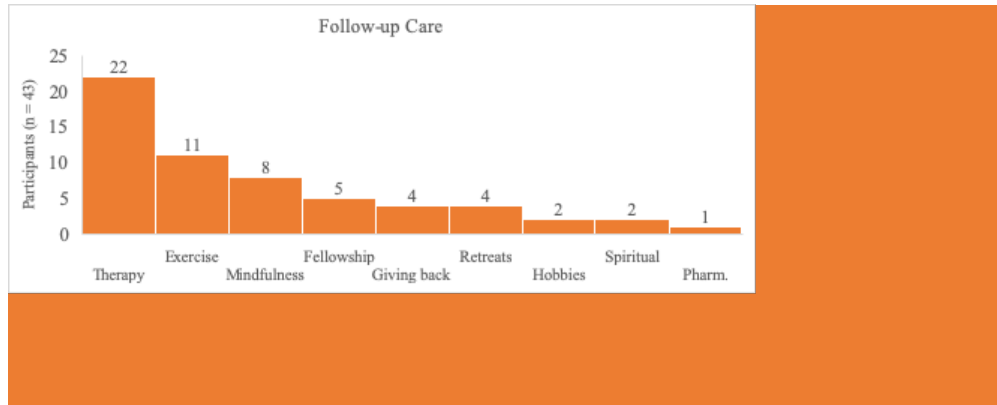


Figure 1: Participant Engagement in Follow-Up Care

Forty-six participants responded to inquiries about their current meditation practice. On average, participants reported meditating 15 times per month, with an average session lasting for 15 minutes. Six of 46 participants (13%) did not report meditating. Results are reported in Table 6.

Table 6
Participants' Meditation Practices

Meditation Practice	Mean Rating	95% CI
Meditation Frequency (sessions per month)	15.07	[10.69, 19.44]
Meditation Duration (minutes)	15.36	[12.33, 18.38]

Overall Impact of Warriors' Ascent

Participants were asked to describe how WA had impacted their life overall. Responses pertained to three areas: improved emotion regulation (e.g., greater positive affect, reduced stress); improved interpersonal functioning (e.g., vulnerability, openness, kindness); and meaningful existential realizations (e.g., sense of worth or purpose). Participants indicated cognitive-behavioral and mindfulness-based practices were mechanisms for these changes. Participant descriptions can be seen in Table 7.

Table 7
Overall Impact of Warriors' Ascent

Emotion Regulation	Interpersonal Functioning	Existential Realizations
"I have learned to use mindfulness and meditation to control my emotions."	"The program allowed me to soften my heart, break down barriers, talk about my issues and become a gentler kinder person again."	"I was able to love my self and forgive myself for my anger toward myself."

“I am able to cope with stressors I had a very difficult time dealing with.”	“Helped me think more positive and appreciate my family more. Be more patient with my family.”	“I am not alone in my struggles and there is a reason for them. I can correct them and lead a better life through the skills I learned at WA.”
“I am no longer as jumpy as I was.”	“I can see the possible benefits of talking about my trauma. I have told my closest friend about it.”	“It has helped me be able to let go of burdens that I was carrying on my shoulders for years. With my brother, my wife, my daughter all passing away, I thought I was somehow responsible... not anymore.”
“Taught me to live in present, not past.”	“Aware of my feeling and how my actions affect others.”	“I have finally found my purpose in life.”

Likelihood of Referral and Future Participation

Likelihood of referral as well as participation in future programming was assessed using a five-point Likert scale (0 - “completely unlikely” to 4 - “completely likely”). Independent samples t-tests were used to determine if ratings were different between those who participated in earlier (2016 – 2017) and revised (2018 – 2019) WA programs. Those who participated in the revised program were significantly more likely to recommend WA to a friend. Differences in desires to attend additional programming were not statistically significant. Results are reported in Table 8.

Table 8
Likelihood of Referral and Future Participation Between Earlier and Revised WA Programs

Item	Earlier	Revised	Mean Dif.	t	df	95% CI Dif.	Sig.	Glass’s Delta
Recommend to friend	3.18	3.87	.685	2.629	45.6	[.160,1.209]	.012	0.53
Return similar	3.38	3.07	-.316	-.978	47	[-.965,.334]	.333	-
Return advanced	3.26	3.20	-.065	-.175	47	[-.809,.680]	.862	-

Perceived Commercial Value

Participants were asked to evaluate the commercial value of WA between \$0 and \$2,000. Warriors’ Ascent was perceived to be worth \$1,115 ± \$146 (95% CI). Independent samples t-tests were used to determine if program valuation differed by participation in earlier versus revised WA programs. No statistically significant differences were observed.

Participant Recommendations

Participant recommendations centered around program activities, accommodations, and aftercare. Recommendations are outlined below. Participant descriptions are reported in Table 9.

Activities

Some participants desired additional time for activities that were already offered during WA (e.g., nutrition, artistic expression). Others desired new programming (e.g., faith-centric sessions, recreational activities, individual therapy). One participant suggested offering a session to

explore aftercare options for PTS (e.g., pharmacotherapy and counseling).

Accommodations

Participants described several ways in which accommodations could be improved. These included travel accommodations (e.g., updated packing itinerary, improved airport transportation); facility accommodations (e.g., comfortable mattresses, clean sleeping quarters); and physical health accommodations (e.g., methods for those with back problems to practice yoga, harness for overweight individuals to participate in the Leap of Faith).

Aftercare

Several participants expressed a desire for WA sponsored aftercare, including community-based alumni groups, alumni reunion retreats, and retreats with advanced curricula.

Table 9
Participant Recommendations

Participant Recommendations			
Activities	Group Setting	Accommodations	Aftercare
<p>“More focus on controlling things like anxiety...what meds to talk to your doctor about, types of therapy available... and figuring out which route to take.”</p>	<p>“More group free time to bond with others. Like just sitting around a fire and talking.”</p>	<p>“It may be worthwhile to revise the itinerary and packing list as those of us that flew were confused about many things.”</p>	<p>“I’d love to see a more advanced session or reunion type retreat for alumni.”</p>
<p>“Better talks and presentations on eating and nutrition. A little more explanation and talk on creative outlets to help heal. We jumped right into the art but didn’t talk much about what it can do for you and how you can continue to do it afterwards.”</p>	<p>“I think some of the classroom stuff could have been done outside easily enough which I feel would have been beneficial.”</p>	<p>“Get gear so that people who weigh more than 300lbs can do the leap of faith. Have better sleeping arrangements. The rooms were musty, and the mattresses were uncomfortable.”</p>	<p>“I’d like to come back for a follow up and even more deeper program.”</p>
<p>“Teach SMART Recovery. I saw that Bruce got a grant for smart recovery and hope that it is implemented into the WA curriculum.”</p>	<p>“One on one sessions with therapist, some issues may not come out in group settings.”</p>	<p>“It was painful to lay on the floor for yoga. Even with pads and blankets. Modifications for people with back problems would be great. I could have gotten more out of the meditation if I wasn’t in pain.”</p>	<p>“Small community based groups after graduation. I’m in Lee’s summit and have 6 kids and don’t come to the Northland much.”</p>

Discussion

When WA was originally conceived, the intent was to provide a novel program to veterans struggling with serious mental health problems. Over the years, approximately 438 veterans have participated in the program. 139 were willing to provide detailed background information about their functioning, and 50 were willing to provide follow-up data. We divide this discussion into

clinical findings, objectives and activities, participant recommendations, and suggestions for further research.

Clinical Findings

Pre-participation data indicate that WA is serving people who have clinically significant depression, PTS, and alcohol use. Pre-participation PCL-5, PHQ-9, and AUDIT scores indicated severe PTS, moderately severe depression, and hazardous drinking behavior. Follow-up scores indicated moderate levels of depression and non-hazardous drinking behavior, and reductions in PTS. Participation in WA is associated with clinically relevant changes in PTS, depression, and alcohol use. However, the degree to which program participation contributes to these changes is unknown at this time. Experimental methods are necessary to determine if a causal relationship exists between program participation and reductions in psychological distress.

We were initially surprised to find that post-participation MIQ-M scores increased at follow-up. A plausible explanation for this increase is that WA program goals include identification and awareness of distal and proximal antecedents contributing to participants' anxiety and depression. Several WA activities (e.g., meditation, yoga, mindfulness, thought records, and sharing sessions) were designed to heighten participants' awareness of past trauma and enable them to effectively address this trauma. In fact, shared concerns during the program were closely aligned with items from the MIQ-M (e.g., "Feeling betrayed or let down by military/political leaders," "Violations of rules of engagement," "Guilt over failing to save the life of someone during my military service," "Seeing so much death has changed me," "During my military service I enjoyed violence."). Hence, it should not have surprised us that participants continued to experience these as "moral injuries" on follow-up.

Objectives and Activities

Participants were most likely to achieve cognitive-behavioral objectives (e.g., *I have better control of my thoughts, feelings, and behaviors; I have a healthier, more realistic view of life*). Activities targeting these objectives (e.g., *CBT Lecture*) were highly rated. High engagement in follow-up therapy suggest that participants could be continuing to implement cognitive-behavioral strategies after completing WA. Further, when asked about the overall impact of WA on overall well-being, participant responses often pertained to improved emotion regulation skills through practice of cognitive-behavioral skills.

The objective *I know how to use meditation to heal myself* was highly attained by participants. Like cognitive-behavioral activities, participants rated mindfulness-based activities (e.g., *meditation, mindfulness and yoga practice*) to be helpful. Moderate engagement in mindfulness practices as part of follow-up care suggest that some participants continue to find benefit in

activities such as journaling, meditation, or yoga after completing WA. When asked about the overall impact of WA, participants indicated that they employed mindfulness techniques to cope with stressors and regulate affect to approach a calmer state.

Participants were less likely to achieve interpersonal and certain affective objectives (e.g., *I am less likely to have conflict with others, I have a greater sense of belonging, some of my emotional wounds have been healed*) despite high ratings for all group processes and core experiential activities (e.g., *Leap of Faith, Ceremony for the Dead*). Despite lower levels of objective achievement, when asked about the overall impact of WA, some participants described improvements in interpersonal functioning. These included improved relationships with family, sharing vulnerably with friends, and awareness the impact of behaviors on other people.

Artistic Expression sessions, Brene Brown TED Talk, and movies were rated by participants as least helpful. WA should continue to facilitate activities to target cognitive-behavioral and mindfulness-based objectives, while refining or replacing less helpful activities to target interpersonal objectives.

Participant Recommendations

One of the most interesting findings was that graduates of the revised WA program were more likely to refer a friend to Warriors' Ascent compared to those who attended earlier programs. In addition, the (averaged) commercial value of the WA program to participants was \$1,115. Graduates perceive WA to be a professional quality program. Even so, they offered recommendations for improvement.

Some recommendations were not appropriate or feasible with regard to the overall purpose and structure of WA (e.g., faith-based components, full SMART Recovery meetings, one-on-one therapy sessions). Viable recommendations included allocating additional time to current programming (e.g., cognitive-therapy lectures, mindfulness, nutrition) or developing new programming to promote engagement in follow-up care (e.g., counseling, pharmacotherapy, alumni events). Other recommendations included improving lodging amenities (e.g., comfortable bedding, ensuring cleanliness), travel procedures (e.g., detailed itineraries, timely transportation), and accommodations for participants with disabilities.

Several participants expressed interest in WA sponsored aftercare. Suggestions included neighborhood alumni groups, reunion retreats, and retreats with advanced curricula. Integrating a structured peer support program within the current WA program could be an initial step to test feasibility and demand for WA sponsored aftercare. Peer support could participate in WA retreats, lead alumni functions, and facilitate peer support groups in their home communities. If a significant demand for these activities is observed, development of reunion retreats or retreats with advanced curricula could be considered.

Suggestions for Further Research

We strongly recommend additional research to determine the effectiveness of the WA program. Because the current study did not include experimental controls, we are unable to determine whether program participation was directly responsible for reductions in psychological distress. An obvious next step would be to assign participants to a waitlist control group. Future research might incorporate dismantling to determine aspects of WA (e.g., activities, group processes) associated with effects.

Conclusion

The results of this report suggest that the Warriors' Ascent program might contribute to a reduction in psychological distress for participants. Cognitive-behavioral and mindfulness-based activities, as well as the Leap of Faith and Ceremony for the Dead, were rated by participants as being the most helpful. Every group process was rated by participants as very helpful. Valuation of the Academy of Healing retreat above \$1000 combined with participants willingness to refer others suggest that the Academy of Healing is perceived to be a valuable program.

Recommendations include continual targeting of cognitive-behavioral and mindfulness-based objectives, while refining activities to target interpersonal objectives; improving accommodations for transportation, lodging, and participants with disabilities; and increasing Warriors' Ascent sponsored aftercare initiatives according to participant demand. Future research should be conducted to determine if participation in Warriors' Ascent is causally associated with changes in psychological functioning and, if so, which program factors most strongly predict such an effect.