# Effects of a Rites of Passage Ceremony on Veterans' Wellbeing

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Abstract

Mixed methods were used to assess the impact of a Veterans Vision Fast program on five veterans' mental health. PTSD, depression, psychological flourishing, life satisfaction, and wellbeing were measured twice before and twice after the program using a data collection app. Semi-structured interviews assessed veterans' perceived experiences. We found significant overall changes and large effect sizes in each outcome over six weeks, and several themes emerged from veterans' responses. The program positively affected veterans' lives.

*Keywords:* vision fast, veterans, posttraumatic stress, nature-based

# Effects of a Rites of Passage Ceremony on Veterans' Wellbeing

About one-third of the 2.2 million U.S. veterans having served in Afghanistan and Iraq since 2001 suffer from symptoms of posttraumatic stress disorder (PTSD) and depression (Schell & Tanielian, 2011; The National Council for Behavioral Health, 2012; Thomas, Wilk, Riviere, McGurk, Castro, & Hoge, 2010). Only half of these veterans currently receive medical and psychological evaluation or counseling (The National Council for Behavioral Health, 2012). The consequences for those who don't can be dire: High rates of unemployment, divorce, suicide, substance abuse, and homelessness abound (Prigerson, Maciejewski, & Rosenheck, 2001; Tanielian & Jaycox, 2008).

Increasingly we are learning that transition services are critical. The U.S. Department of Veterans Affairs (VA) has invested heavily in evidence-based treatments, particularly prolonged-exposure therapy (PE) and cognitive processing therapy (CPT). Ample evidence shows these to be effective treatments (Institute of Medicine, 2007). Yet, between 30% to 50% of those treated by these therapies fail to show improvement in their symptoms, and the attrition rate is approaching 40% (Schnurr, Friedman, & Engel, 2007). As high as 60% of veterans of recent wars in the Middle East either choose to abstain from conventional therapies or quickly drop out of these treatments (Hester, 2017; Kehle-Forbes, Meis, Spoont, & Polusny, 2015). Reasons include stigma towards mental health counseling (Corrigan, 2004; Held & Owens, 2013) and difficulties navigating the VA (Shane, 2015).

The process of returning warriors home from war long predates current problems the United States is having with caring for its veterans. Throughout history, those who took part in battle witnessed and took part in unspeakable brutalities. It is without question their experiences were traumatizing, and undoubtedly some experienced symptoms of PTSD and depression as a

result. Evidence suggests however that returning from combat may have been easier in the societies of our evolutionary past. These small hunter-gather tribes provided a social context conducive to maintaining intimate social bonds as warriors transitioned back into their tribes. The social conditions upon their return may have dramatically reduced the incidence rates of chronic PTSD and other common post-war psychological disorders (Garcia, 2016; Junger, 2016). Additionally, the oral histories of Native American peoples fail to mention post-combat symptoms of psychological trauma plaguing their communities. As the United States struggles to effectively support its veterans, indigenous healing traditions present new directions for PTSD and depression treatment that until now have been largely ignored by the broader healthcare community in the United States and elsewhere.

## Indigenous Healing Practices

The term indigenous healing practice, also known as "traditional and indigenous medicine", refers to healing methods that have been used by various cultures and societies throughout history, before the arrival of modern medicine. These practices grew out of the unique cultural, historical, and geographical features of their time and place. Despite their long tradition of use, indigenous healing practices have lacked the support of modern medicine, resulting in a dearth of formal education, training, and research into their healing effectiveness. Native American medicine, a specific system of indigenous healing, refers to the combined health practices of over five-hundred distinct nations that once inhabited the Americas prior to European invasion in the fifteenth century. Although practices varied among tribes, all Native American medicine is based on the belief that human beings are apart of nature, and health the result of a holistic balance among body, mind, spirit, emotions, behavior, and social group.

From this perspective, disease of any sort is never viewed in isolation, but is explained as the culmination of disharmony among intrapersonal, social, and environmental factors.

**Rites of Passage Ceremony**

In this paper we investigate how PTSD and depression symptoms are mitigated by a Native American inspired rites of passage ceremony, a common healing practice among many American nations. The ceremony was historically used to prepare returning warriors to reenter village life. Native societies placed great importance on life transitions, marking many changes in one phase of life to the next with rites of passage ceremonies, including the transition home from battle. To mark the passage from war to peace, Native peoples for thousands of years dealt with the problem we now call PTSD through conducting a rites of passage ceremony that incorporated a vision quest or vision fast. In typical fashion, the elders of the community would meet returning warriors outside the village to cleanse them ceremonially before they were allowed to reenter the tribe. It was understood that to rejoin the village without first making a ceremonial passage could be harmful to both the warrior and the community. The nations of the Great Plains', for example, to mark the attainment of a changed social status for returning warriors, conducted three rites of passage: severance — preparation to leave the former life as a warrior and enter a sacred space of healing; threshold — multiple days and nights in a sacred location in the wilderness, where warriors fasted and meditated and sought a vision that would give them "medicine" for their wounded spirits; and incorporation — warriors would return to give witness to their own and others' experiences in a "council of elders" and subsequent reintegration into the community as individuals with changed social status (Mails, 1972; Van Gennep, 1972).

**Veterans Vision Fast**

Billed as a "ceremony of return" for veterans looking for a way to reconnect with themselves and their communities, The School of Lost Borders in collaboration with Nine9Line Veterans Services hosted the inaugural Veterans Vision Fast in May of 2017. The event was modeled after the Great Plains nations' rites of passage ceremonies used to reintegrate returning warriors into tribal life. The twelve day vision fast program involves four days of preparation, four days and nights of fasting alone in the wilderness, and four days of reintegration. The program is broken up into the following sequence:

**Severance (days 1-4).** First, participants travel to a wilderness setting and set up a base camp where they become acclimated to the sights and sounds of nature, tuning in to the rhythms of the natural world. Next, participants identify their reasons for participating, confirm their commitment to the undertaking, and reflect on their inner resources through council-style group discussions and nature-focused ceremonies, including walks, journaling, and contemplative practices such as meditation and sensory awareness. Logistical issues, equipment, and personal and group safety are addressed.

**Threshold (days 5-8).** In this phase, comprised of four days of solitude and fasting from food (with water, a buddy system, and other safeguards), participants may engage in awareness practices and self-generated ceremonies. Participants draw upon their strengths as they face the fears, doubts, and personal struggles that will inevitably arise. The threshold time represents a symbolic death as the person passes into a new life.

**Return (days 9-12).** Finally, in the return, or reincorporation, phase, participants experience a symbolic rebirth. Upon return to base camp, they engage in a quiet celebration and slowly integrate back into the company of others. Through reflection and story sharing, participants integrate their insights and experiences, gaining understanding of their experiences

and how it has altered their perceptions, emotions, and sense of self. The aim of reincorporation is to help participants explore the phenomenological meaning of their experiences. After their return home from the vision fast, participants are supported through contact with other vision fast participants to incorporate their experiences into their lives more fully. This ongoing work is the responsibility of each participant, but is often collectively shared and supported.

## Present Study

To investigate the effects of the Veterans Vision Fast program, we used an explanatory sequential mixed methods research design. Our objective was to assess the impact of the Veterans Vision Fast on symptoms of PTSD and depression, and psychological and emotional wellbeing. We hypothesized that the program would a) improve veterans' psychological and emotional wellbeing, and b) decrease symptoms associated with PTSD and depression. We began by collecting quantitative data related to these outcomes and testing them to determine if visually and statistically significant changes occurred from the program. After analyzing these data, we then sought to assess veterans' related phenomenological experiences and whether they perceived positive changes in their symptoms resultant from their experience in the Veterans Vision Fast program. Consistent with an explanatory sequential mixed methods design, our intent was to use qualitative data to help explain in detail our quantitative results (Creswell & Creswell, 2018). In the final integration phase, we combined quantitative and qualitative findings to explore connections and implications arising from both analyses.

## Quantitative Method

### Participants and Placement

A convenience sample of military veterans was recruited from a veterans' support group in Washington State. Of the five participants, four were male and one was female. Their ages

ranged from 36 to 58 with an average of 41 years of age. All five participants identified as White. Participant membership in the five branches of the United States Armed Forces, as reported by three of the participants, was as follows: two Navy, three Army, zero in Marine Corps, zero in Air Force, and zero in Coast Guard. One participant also identified himself or herself as serving in the U.S. reserves military forces, in addition to a primary branch. The number of years served in the military ranged from four to 23 years, with an average of 11 years. The participants volunteered the information that they were all honorably discharged from the army. Participants were required to have served in a branch of the U.S. military and currently own a smartphone with six megabytes of available data each month. Participants were also required to attend the Veterans Vision Fast program for twelve consecutive days in the wilderness without access to phones or computers. Throughout the six-week study, participants were required to respond to four push notifications on their smart phones. Interested and qualified participants were emailed an informed consent form and links for downloading a data collection app from iTunes or Google Play.

**Materials**

The data collection app was designed using a third-party platform compatible with iOS and Android mobile operating systems. Its user interface was customized for the study and featured an emergency contact number for a mental health professional. Scale and inventory items for dependent measures were entered manually using the app's online researcher portal. Items appeared individually on users' screens, and exposure to subsequent items was contingent on responding to an earlier item. All items featured touch-sensitive multiple choice response options. The data collection app was previously discussed in Author, Author, and Author (2017) and Author and Author (2017).

## Design

A variant of a single-case research design (SCRD) called a concurrent multiple baseline design was used to collect data from participants' smartphones on four occasions: twice before the Veterans Vision Fast intervention (T1 and T2) and twice after the intervention (T3 and T4). At T1, participants were pushed seven inventories (65 items) through the data collection app and given two hours to complete them. Seven days later at T2, participants were again pushed these inventories. Data from T1 and T2 (Phase 1) served as the group's baseline measure. Participants then left on the twelve day Vision Fast. After returning, participants were pushed these inventories again the next day (T3) and again one month later (T4). These data (Phase 2) served as the group's post treatment measures.

We decided on a concurrent multiple baseline design rather than a traditional multiple baseline design so that we could maintain the intervention's collaborative nature. A traditional multiple baseline design requires researchers to begin collecting data from all participants at a single time point and then stagger the start time of the intervention for each participant (Richards, Taylor, & Ramasamy, 2014). To do this, we would have had to process participants through the intervention individually, which would have considerably threatened treatment fidelity. The Vision Fast activity is inherently collaborative. Therefore, it required us to begin the intervention for all participants concurrently.

## Measures

Five scales and inventories were used at each time to capture a participants' mental wellbeing. Post-traumatic stress disorder (PTSD) was measured by the PTSD checklist for DSM-5 (PCL-5), a 20-item instrument whose scores have demonstrated strong reliability and validity (Bliese, Wright, Adler, Cabrera, Castrol, & Hoge, 2008; Harrington & Newman, 2007).

Depression was measured by the Beck's Depression Inventory (BDI), a 21-item instrument whose scores have also demonstrated strong reliability and validity (Arnau, Meagher, Norris, & Bramson, 2001). Current and future wellbeing were measured by the Cantril Self-Anchoring Striving Scale (CSASS), a two-item instrument used by Gallop to assess global wellbeing (Harter & Gurley, 2008). It, too, has yielded scores demonstrating reliability and validity (Beckie & Hayduk, 1997; McIntosh, 2001). Satisfaction with life was measured using Diner, Emmons, Larsen, and Giffin's (1984) five-item Satisfaction with Life Scale (SWLS). Numerous studies have confirmed the reliability and validity of its scores (see Lopez-Ortega, Torres-Castro, & Rosas-Carrasco, 2016 for a review). Psychological flourishing was measured by the Flourishing Scale (FS), an eight-item instrument whose scores have demonstrated reliability and validity particularly when used with adults with suboptimal well-being (Schotanus-Dijkstra, et al., 2016).

**Analysis**

Traditionally, single-case research designs (SCRD) have relied on visual analysis for determining treatment effects (Vannest & Ninci, 2015). Accordingly, we present our non-aggregated data in X-Y graphs for all outcomes in figures 1-6. Those interested in participants' score variation are encouraged to examine these figures. In addition to visual analysis, researchers have advocated for appropriate statistical analyses in SCRDs when possible (Kazdin, 2010; Vannest & Ninci, 2015). Kazdin has argued that statistical analyses may be required when research environments prevent tight controls. Because ours is an intervention study with high sensitivity to researcher intrusion, such experimental control was impossible and undesirable. We, therefore, chose to couple our visual analysis with statistical analysis.

The parametric test appropriate for repeated measures group data with a single within-participants experimental manipulation is one-way repeated-measures ANOVA. This test assumes that participants' scores are normally distributed at each time point and that the variation in participants' scores are similar at each time point. As is common with small sample single-case designs, we could not confirm these assumptions in our sample (n = 5). One suggested alternative is the non-parametric Friedman's ANOVA (Field, 2014). Non-parametric tests do not assume normally distributed scores or consistent variance at each time point. For the Friedman's test, scores are ranked for each participant and mean rankings across participants are calculated for each time point. A chi-square statistic is then calculated to determine if the mean rankings of each time point differ. Similar mean ranks across time points suggest no change in scores across time, whereas different mean ranks across time points suggest changes.

We used a non-parametric Friedman test to identify differences in participants' rank outcomes between times. The last observation carried backward (LOCB) single imputation method was used to impute data for participant 5's (P5) missing baseline observations at T1. A failure to do so would have triggered a listwise deletion of P5's subsequent data at T2, T3, and T4. The LOCB method imputes a participant's most proximate forward observation in place of the missing observation. In this instance, P5's baseline observations at T2 were used for earlier baseline observations at T1. Very high to moderate bivariate correlations for T1 and T2 measures supported this method on four outcomes: PTSD ($r$ = .97), future wellbeing ($r$ = .95), flourishing ($r$ = .91), and depression ($r$ = .63). Exceptions were satisfaction with life ($r$ = .35), and current wellbeing ($r$ = .47), for which listwise deletion of P5's data was subsequently used.

Given the low statistical power associated with our sample size, we emphasize not only visual and statistical analyses but also consideration of effect sizes. For the Friedman's test, we

use Kendall's *W* as a measure of effect size. It ranges from 0 (indicating no common pattern of ranked scores across participants) to 1 (indicating a perfect pattern of ranked scores across participants) (Tomczak & Tomczak, 2014). We use Cohen's (1998) criteria for interpreting the effect sizes of subsequent comparisons between time points: $r \geq .10$ (small), $r \geq .30$ (medium), and $r \geq .50$ (large). Readers are encouraged to consider all three forms of analysis when reviewing the results.

## Quantitative Results

### Posttraumatic Stress Disorder

Graphs suggested that all participants had stable baseline scores prior to the intervention and decreased scores following the intervention. Scores remained below baseline measures at the 30-day follow up. [Insert Figure 1 here] Mean PTSD scores were as follows: T1 ($M$ = 59.00, $SD$ = 12.51), T2 ($M$ = 60.60, $SD$ = 15.60), T3 ($M$ = 32.00, $SD$ = 11.36), and T4 ($M$ = 40.20, $SD$ = 23.45). Scores significantly changed over the six weeks of the study, $\chi^2$ (3) = 12.55, $p < .01$, $W$ = .84. Pairwise comparisons using Wilcoxon signed ranks tests and the Dunn-Bonferroni adjustment showed that scores did not differ within pretreatment ($T$ = -.40, $p > .05$, $r$ = -.15) or posttreatment phases ($T$ = -.20, $p > .05$, $r$ =-.08), but significantly decreased between T2 and T3 following the intervention ($T$ = 2.3, $p$ = .03, $r$ = .89). All other comparisons between baseline and treatment time points, though not statistically significant, showed large treatment effect sizes: T1 to T3 ($r$ = .74), T1 to T4 ($r$ = .66), and T2 to T4 ($r$ = .81).

### Satisfaction with Life

Similar to PTSD scores, graphs suggested that most participants had stable baseline satisfaction with life scores prior to the intervention (see Figure 2). [Insert Figure 2 here] The exception was P2 whose scores tended to trend upwards during the baseline phase. Still, all

scores increased following the intervention and remained above baseline measures at the 30-day follow up. Mean satisfaction with life (SWL) scores were as follows: T1 ($M$ = 17.25, $SD$ = 2.63), T2 ($M$ = 18.83, $SD$ = 6.49), T3 ($M$ = 29.33, $SD$ = 4.37), and T4 ($M$ = 26.33, $SD$ = 3.27). Scores significantly changed during the study, $\chi^2$ (3) = 10.54, $p$ = .015, $W$ = .88. Pairwise comparisons again showed that scores did not differ within pretreatment ($T$ = 0, $p$ > .05, $r$ = 0) or posttreatment phases ($T$ = .75, $p$ > .05, $r$ = .29). Remaining comparisons between phases, though not statistically significant, showed large treatment effect sizes: T1 to T3 ($r$ = -.92), T1 to T4 ($r$ = -.63), T2 to T3 ($r$ = -.92), and T2 to T4 ($r$ = -.63).

**Psychological Flourishing**

Graphs suggested that participants' psychological flourishing scores remained stable during the baseline phase (see Figure 3). [Insert Figure 3 here] All scores increased following the intervention and remained above baseline measures at the 30-day follow up. Mean psychological flourishing scores were as follows: T1 ($M$ = 38.00, $SD$ = 5.75), T2 ($M$ = 37.00, $SD$ = 7.87), T3 ($M$ = 51.20, $SD$ = 5.02), and T4 ($M$ = 48.20, $SD$ = 5.63). Scores significantly changed during the study, $\chi^2$ (3) = 13.85, $p$ < .01, $W$ = .92. Scores did not differ within pretreatment ($T$ = .20, $p$ > .05, $r$ = .08) or posttreatment phases ($T$ = .80, $p$ > .05, $r$ = .30), but significantly increased from T1 to T3 ($T$ = -2.30, $p$ < .01, $r$ = -.89) and T2 to T3 ($T$ = -2.50, $p$ = .013, $r$ = -.97). Remaining comparisons between phases, though not statistically significant, showed large treatment effect sizes: T1 to T4 ($r$ = -.58) and T2 to T4 ($r$ = -.66).

**Depression**

Graphs suggested that participants' depression scores were more variable than previous measures prior to intervention (see Figure 4). [Insert Figure 4 here] Most participants' baseline measures trended upward (depression worsened). The exception was again P2 whose scores

trended down during baseline. All scores decreased following the intervention, and four of five remained below baseline measures at the 30-day follow up. Mean depression scores were as follows: T1 ($M$ = 22.20, $SD$ = 12.70), T2 ($M$ = 23.80, $SD$ = 11.90), T3 ($M$ = 4.40, $SD$ = 3.91), and T4 ($M$ = 10.20, $SD$ = 10.67). Scores significantly changed during the study, $\chi^2$ (3) = 12.44, $p$ < .01, $W$ = .83. Scores did not differ within pretreatment ($T$ = -.50, $p$ > .05, $r$ = -.19) or posttreatment phases ($T$ = -.70, $p$ > .05, $r$ = -.27), but significantly increased from T2 to T3 between phases ($T$ = 2.50, $p$ = .013, $r$ = 0.97). Remaining comparisons between phases, though not significant, showed large effect sizes: T1 and T3 ($r$ = 0.77), T1 and T4 ($r$ = 0.50), and T2 and T4 ($r$ = 0.70).

**Current Wellbeing**

Graphs suggested some variation in participants' baseline current wellbeing scores. Trends during the baseline phase were positive except for P4 whose scores trended downward (see Figure 5). [Insert Figure 5 here]. All scores increased following the intervention, and remained above baseline measures at the 30-day follow up. Mean current wellbeing scores were as follows: T1 ($M$ = 5.00, $SD$ = 1.41), T2 ($M$ = 5.00, $SD$ = 1.73), T3 ($M$ = 7.80, $SD$ = 2.17), and T4 ($M$ = 7.40, $SD$ = 1.67). Scores significantly changed during the study, $\chi^2$ (3) = 10.74, $p$ = .013, $W$ = .72. Scores did not differ within pretreatment ($T$ = -.50, $p$ > .05, $r$ = -.19) and posttreatment phases ($T$ = .50, $p$ > .05, $r$ = .19), but significantly increased from time 1 to 3 between phases ($T$ = -2.50, $p$ < .01, $r$ = .97). Remaining comparisons between phases, though not significant, showed large effect sizes: T1 to T4 ($r$ = -.77), T2 to T3 ($r$ = -.77), and T2 to T4 ($r$ = -.58).

**Future Wellbeing**

Graphs suggested participants' future wellbeing scores were largely stable during the baseline phase (see Figure 6). [Insert Figure 6 here] All scores increased following the intervention and remained above baseline measures at the 30-day follow up. Mean future wellbeing scores were as follows: T1 ($M$ = 7.00, $SD$ = 2.00), T2 ($M$ = 7.00, $SD$ = 2.35), T3 ($M$ = 9.00, $SD$ = 1.22), and T4 ($M$ = 8.80, $SD$ = 1.30). Scores significantly changed across the study, $\chi^2$ (3) = 14.02, $p < .01$, $W = .93$. Scores did not differ within pretreatment ($T = 0$, $p > .05$, $r = 0$) or posttreatment phases ($T = .20$, $p > .05$, $r = .08$). All remaining comparisons between phases, though not statistically significant, showed large treatment effect sizes: T1 to T3 ($r$ = -.81), T1 to T4 ($r$ = -.74), T2 to T3 ($r$ = -.81), and T2 to T4 ($r$ = -.74).

## Qualitative Method

In the second, qualitative, phase, the researchers used in-depth, semi-structured telephone interviews to augment and support the quantitative findings. We used a multiple case study approach to help refine and explain the visual and statistical results by exploring participants' perceptions in more depth (Patton, 2015). We anticipated that each case would yield findings that were unique to each participant, yet similar across the breadth of participants due to their shared experiences in the Veterans Vision Fast program. Four out of the five participants (3 males and 1 female) agreed to be interviewed about their experiences and perceptions of the Veterans Vision Fast program. The semi- structured interviews were conducted four to six weeks after the completion of the Vision Fast program and lasted approximately 40 minutes. To insure the accuracy of data collection, researchers used a digital audio recorder during each interview to record responses. As recommended by Patton (2015), after the completion of each individual interview, the established digital files were transcribed verbatim by a research team member. Once transcribed, the transcripts were checked again against the taped interview, to

make sure that nothing was missed. The primary research questions that formed the basis of the interview were: (1) What, if any, are the benefits of participating in the Veterans Vision Fast program for military veterans? (2) How, if at all, are military veterans utilizing what they have learned from the Veterans Vision Fast program to reduce the symptoms associated with PTSD and/or depression?

Thematic analysis was utilized to analyze the interview data. Thematic analysis is a method for identifying, analyzing, and reporting patterns (themes) within data. Braun and Clarke (2006) offered the following six steps for conducting a thematic analysis: (a) familiarizing yourself with the data, (b) generating initial codes, (c) searching for themes, (d) reviewing and refining themes, (e) defining and naming themes, and (f) writing up the results. For the first step, the third author read all transcribed interviews before coding began. While reading the transcripts, the third author took notes and marked ideas for coding that were later revisited in subsequent phases. Next, the third author re-read the transcripts to detect recurring words, phrases, or thoughts that might form the basis of repeated patterns (themes) across the data set; these were then categorized using codes. The third author also took note of contradictions or discrepancies in participants' responses. In the third step, codes were sorted into potential themes, and then all the relevant coded data extracts within the identified themes were collated. In this step, the third author considered the relationship between codes, between themes, and between different levels of the themes. Step four consisted of conducting a separate examination to identify overlapping themes or un-coded text and subsequently refining and revising each category. During the fifth step, the third author named and defined the themes. The sixth and final step consisted of writing up the findings.

## Qualitative Results

Six themes emerged from the data synthesis: creating a post-trauma identity, tribal sense of community, rite of passage from military life to civilian life, mindful nature connection, daily self-care rituals, and processing traumatic experiences. The first four themes shed light on military veterans' perceptions of the benefits of the Veterans Vision Fast program. The next two themes described how military veterans are utilizing what they learned from the Vision Fast program to increase their overall well-being. Direct excerpts from the transcripts are used to illustrate these themes.

Creating a post-trauma identity. All four participants noted that the Veterans Vision Fast experience offers veterans the chance to consciously choose who they wish to be as a person despite their past traumatic experiences and in spite of present symptoms. The following excerpt illustrates this theme:

> I'm learning to embrace my whole self, not just my traumatized self. I certainly have been one that's lived in the past, and you know to be honest, I'm ready to focus on who I can become. I am reclaiming my identity, reaching back to who I was, what I love, and what gifts I had before all that bullshit I learned in boot camp and during the war. I'm reclaiming my identity before all of the diagnoses, labels, etc. and I think that's extremely powerful and liberating. What's right with me is more important than what's wrong with me.

Tribal sense of community. Each of the participants described a tribal sense of community that was formed by participants during their time in the wilderness. The experiences provided them with a sense of belonging, a feeling that the members matter to one another and to the group, and a shared faith that members' needs will be met through the groups' commitment to be together. These participants believed that the group provided a safe space to be vulnerable, learn to trust, and to hold one another accountable. The responses below illustrates this sentiment:

> … the connections that we made were like incredible….it gives us a lifeline. I, you know, didn't have anyone before I did this and then I went on this thing with people I don't

> know and all of the sudden I have, you know, people that I can safely talk to who already know what I'm going through. We learned to speak about, very personal things like sexual assault in the military or the other demons we face. No one understands a veteran like another veteran. And it's that understanding of what you're going through that helps people to talk about it and deal with it.

A different participant shared,

> …we built trust and really intense connection that we took back into the real world. We have set up a WhatsApp group and we have been talking every day since the trip and supporting each other with whatever comes up and it really feels like we have this tribe that we're part of and we all care about each other so that you know, people don't feel alone anymore, they don't feel isolated. We are part of something. We are part of a committed group. I think that's what is going to be true of any kind of, uh, help for veterans with PTSD. They're going to need that support group.

Rites of passage from military life to civilian life. All four of the participants indicated that their participation in the program served as a rite of passage from military life to civilian life. Specifically, participants reported that the program functioned as a time-limited transitional period where they learned new behaviors and ways of thinking, and strived to pass personal challenges on their journey to being a civilian again. As one participant shared,

> … we received intensive basic and advanced training on how to be a solider/warrior, but received little training to assist us in returning to civilian life or a rite of passage back into society that isn't at war. I experienced the Vision Fast as a form of initiation into a new life and guidance on what it means to be a civilian again.

Another participant remarked,

> Before I was always in mission mode and you never break [or] get out of mission mode, you spend like there's no tomorrow, you fuck like there's no tomorrow, you love like there's no tomorrow, and you work like there's no tomorrow because you feel like there will be no tomorrow. Your head is filled with paranoid thoughts and that's my pathology….The [Vision Fast] program showed me some powerful techniques to actively reprogram my thoughts and get out of mission mode.

Mindful nature connection. Each of the participants cited that the program taught them how to connect with nature (via mediation) which was associated with feelings of calmness and self-discovery and a reduction of stress and anxiety. For example, one participant commented,

> …. [As] I became closer to nature. I learned to listen better. I learned to love myself more and accept all of me as a whole person. I think there's something about the freedom of nature that is irreplaceable, humbling, and calming. I am able to calm myself down and take a break as soon as I notice I am getting too stimulated, which is another set of demons I am working on.

Another participant said:

> Nature is antithetical to military life, machines and guns, order and rules and codes….nature doesn't negotiate, it doesn't care about your codes or status or if you're an officer or you're a woman or you're that or if you're cocky or this, nature will destroy you and help you and give you what you need. I've found nature meditations to be surprisingly refreshing.

Daily self-care rituals. All of the participants credited the Veterans Vision Fast program for teaching practical self-care skills that they continue to integrate into their daily lives. These have helped to decrease symptoms associated with depression and anxiety. One participant reported:

> I've been, you know, putting more dedicated effort into the garden at the house, even though my plants might die at the end of this month. [Gardening] helps me see that I will be able to get to a place where I can take care of myself, much like taking care of my plants. It puts me on the path where I'm not allowing my depression to get the best of me each day and I'm not running away from my demons either.

Another participant commented:

> I learned the healing power of telling my story. Actually, last night I auditioned for the Seattle Rep and I used a 4-minute telling of my tale at the vision fast as my audition. It was freeing in a way. I am also practicing self-reflectivity, I'm writing more…I'm going to write my story next. I'm becoming an advocate for nature-based healing, and in spirit I'm more connected to my version of God or spirit.

Processing traumatic experiences. Three of the five participants credited the program for teaching them to process their story of trauma, put words and emotions to it, and make meaning of it. According to the participants, the program provided a safe space to explore and mourn the losses associated with the trauma, while at the same time providing an opportunity to grieve and express their emotions. As one participant mentioned "… I learned that telling your story is only

one part of the healing process – but you first need to learn and practice self-care skills that you can then use to help manage your emotions and stay in the moment. Without this, you're just re-traumatizing yourself." Another participant shared,

> During the vision quest, talking about certain things made my memories come back, but this time I'm getting them in different ways now, like I get that if it was traumatic or something bad, I think about it like, what meaning does it have or what can I learn from the memory. Like there was a message I needed to learn instead of like, oh this is why you're so fucked up. Learning from my [traumatic] memories it helps me deal with it. It's better than the coping mechanism of just forgetting about it altogether I imagine.

## Discussion

The present study was the first to examine the impact of a traditional rites of passage ceremony on veterans' PTSD and depression symptoms, as well as on their subjective ratings of psychological and emotional wellbeing. To better depict the complexity of this experience, we paired quantitative measures for gauging its effect on key outcomes with qualitative measures for illustrating how veterans made sense of the experience. In both cases, we found that the Veterans Vision Fast program had a considerable impact on veterans' lives.

Given the small sample size, our power to detect an effect was exceedingly small. Despite this, we found statistically significant overall changes in each of our study's six outcomes. In each instance, effects were very large, ranging from $W = 72$ to $W = 92$. Graphical depictions of data supported these findings, showing that after the intervention, scores of PTSD decreased, satisfaction with life increased, psychological flourishing increased, depression decreased, current wellbeing increased, and future wellbeing increased. With the exception of P3's final depression score, all participants' post Vision Fast scores were either lower or higher than their pre Vision Fast scores. Effects, then, were both immediate and largely sustained one month after the intervention. Further, all effect size calculations for pairwise comparisons across

phases were large, ranging from $r = .50$ to $r = -.97$, whereas those within phases were small, ranging from $r = 0$ to $r = .30$, suggesting that participants experienced greater changes across phases than within phases.

A possible explanation for the decreases in symptoms of PTSD and depression and increases in overall psychological and emotional wellbeing might be related to the *tribal sense of community* that was formed by participants during their time in the wilderness and sustained long after the program. Research has shown that the most significant factor for buffering post-deployment PTSD and depression is strong social support (Han, et al., 2014), particularly when it comes from fellow veterans (Briggle, 2013). According to Briggle (2013) veterans overwhelmingly prefer unit support to that of friends and family, the latter of whom were often seen as more of a challenge than a help. As one participant put it, "No one understands a veteran like another veteran." Veterans often experience a unique kind of loneliness, what Stein and Tuval-Mashiach (2014) call "experiential loneliness". They feel disconnected despite having emotional or social bonds with others whom they see as not understanding them. They may see themselves as living in a different world than civilians, a world marked by experiences so removed from civilian life that others cannot relate or accurately empathize. Another possible explanation for these results is that veterans learned to implement *daily self-care rituals* such as the practice of mindfulness meditation. Several reports have shown that mindfulness reduces rumination, stress, anxiety, and emotional reactivity (e.g., Hoffman et al., 2010), and improves increases positive affect, relationship satisfaction, and emotional self-regulation (e.g., Farb et al., 2010).

As hypothesized, changes in mean phase scores for both depression and PTSD exceeded established minimal clinically important differences for the BDI and PCL-5, respectively. For

depression (BDI), participants' pretreatment mean was 23 and posttreatment mean was 7.3, a 68% reduction exceeding the 32% reduction estimate for people with longer duration depression who have not responded well to antidepressants (Button, et al., 2015). For PTSD (PCL-5), participants' pretreatment mean was 59.8 and posttreatment mean was 36.1, a 23.7 point reduction that again exceeded the 10-20 point change criteria used to indicate clinically significant change (U.S. Department of Veterans Affairs, 2017). Worth also noting were changes to participants' sense of current well-being as measured by the Cantril Self-Anchoring Striving Scale (CSASS). Before Vision Fast, participants' mean score was 5, and after it was 7.6, a transition from what Gallup (2009) calls *struggling* (scores of 5-6) to *thriving* (scores of 7+). These results may partly be explained by participants exposure to and time spent in nature. Studies on the relationship between nature and wellbeing have repeatedly found that nature positively affects cognitive, psychological, social, and physical well-being. Research has shown that interacting with nature increases life satisfaction, optimism, zest for life (Waliczek, Zajicek, & Lineberger, 2005); self-esteem (Cammack, Waliczek, & Zajicek, 2002); mental concentration (Gezondheidsraad, 2004); physical health (Lewis, 1996); sense of community (Patel, 1991); social cohesion (Waliczek, Mattson, & Zajicek, 1996); and quality of life (Gezondheidsraad, 2004).

There are, however, other possible explanations. It may be that these participants benefitted from *processing traumatic experience*, memories, and emotions with other veterans. Participants processed their story of trauma, many for the first time, by putting words and emotions to the event. This touched on some of the key therapeutic components of prolonged-exposure therapy (PE), an approach based on emotional-processing theory (Foa and Kozak, 1986), which posits that anxiety disorders reflect specific fears of places, situations, or objects

that are safe but are perceived as threatening and thus avoided (Foa and Cahill, 2001). The central components of PE are in vivo exposure and imaginal exposure. In vivo exposure consists of gradually and systematically exploring situations, places, and people that the person has been avoiding. Through exposure to those anxiety-inducing stimuli, the person's unrealistic expectations of harm are corrected, and the person experiences a reduction in the fear response. Imaginal exposure involves revisiting the traumatic experience and recounting the event in a way that promotes emotional engagement with the memory and then processing the trauma event. Similar to in vivo exposure, imaginal exposure provides a shift of perspective that disconfirms erroneous, stress-inducing cognitions. Relatedly, participants in our study described the importance of processing their trauma stories so that beliefs related to the trauma memory could be scrutinized under a new light. Participants expressed that the program provided a safe space to talk openly about their trauma memories (in vivo exposure) and process their emotions related to the event (imaginal exposure). This section has attempted to provide a brief discussion of the findings and possible explanations.

**Limitations**

Our results should be considered in light of several limitations. First, by nature of the Veterans Vision Fast program, our sample size was small. Our methodology was chosen to work with this small sample and still attain valid findings. Replications and extensions of these findings are certainly recommended. Second, we did not control for contributing effects from conventional therapies like talk therapy or psychotropic medicine. We do not know the degree to which, or whether, other treatments influenced the results. Complementary therapies have often been found to have a compounding effect, so perhaps some of the participants' scores were effected by their use of drugs or counseling or some other outside treatment. Third, participants

self-selected into both the Veterans Vision Fast program and study. This may have biased the sample in terms of our participants having an increased willingness to get better. Future research may wish to consider these limitations and, if possible, control for potential confounding variables. Limitations notwithstanding, three pieces of evidence in our study—statistical, visual, and narrative—identify a trend and functional relationship between the intervention and the outcome. Although the methodology and use of non-parametric statistics is still relatively uncommon in the field of counseling, this study serves as a model for practice-based research.

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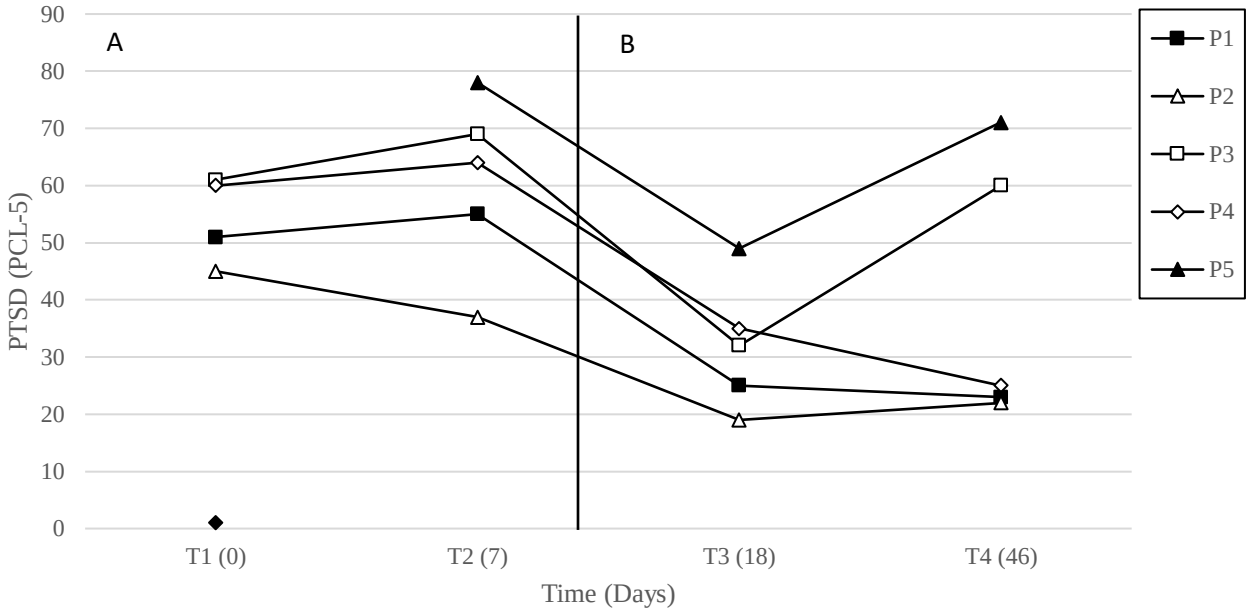


Figure 1. Posttraumatic stress disorder scores as measured by PCL-5 over time across baseline (A) and vision quest intervention (B) phases.

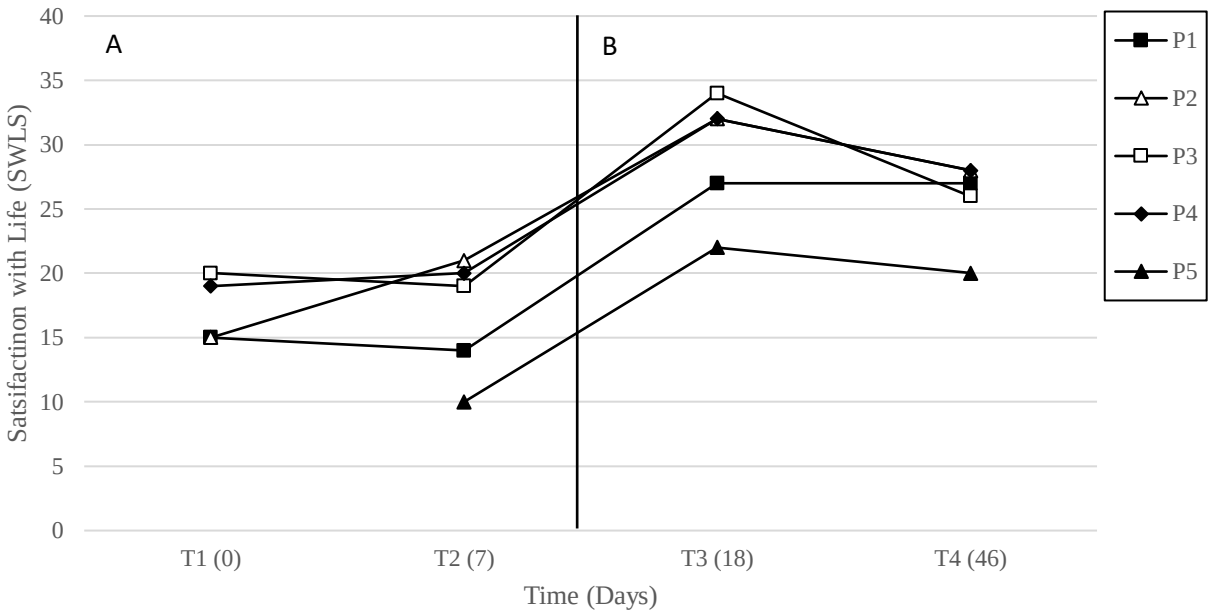


Figure 2. Satisfaction with life scores as measured by SWLS over time across baseline (A) and vision quest intervention (B) phases. P5 omitted from statistical analysis.

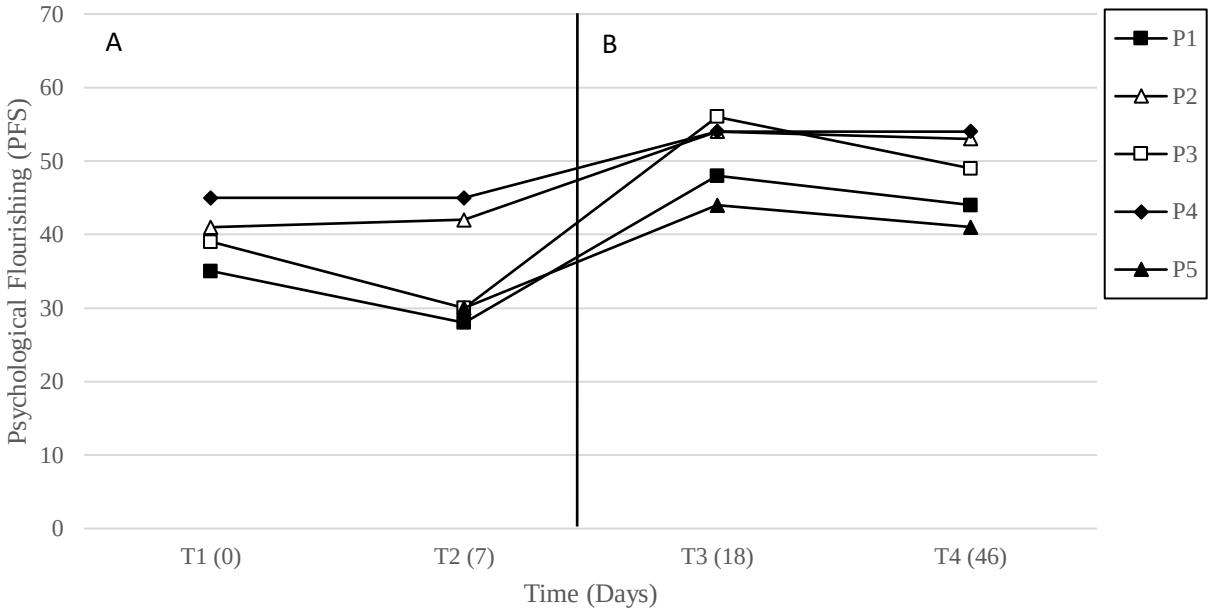


Figure 3. Psychological flourishing scores as measured by PFS over time across baseline (A) and vision quest intervention (B) phases.

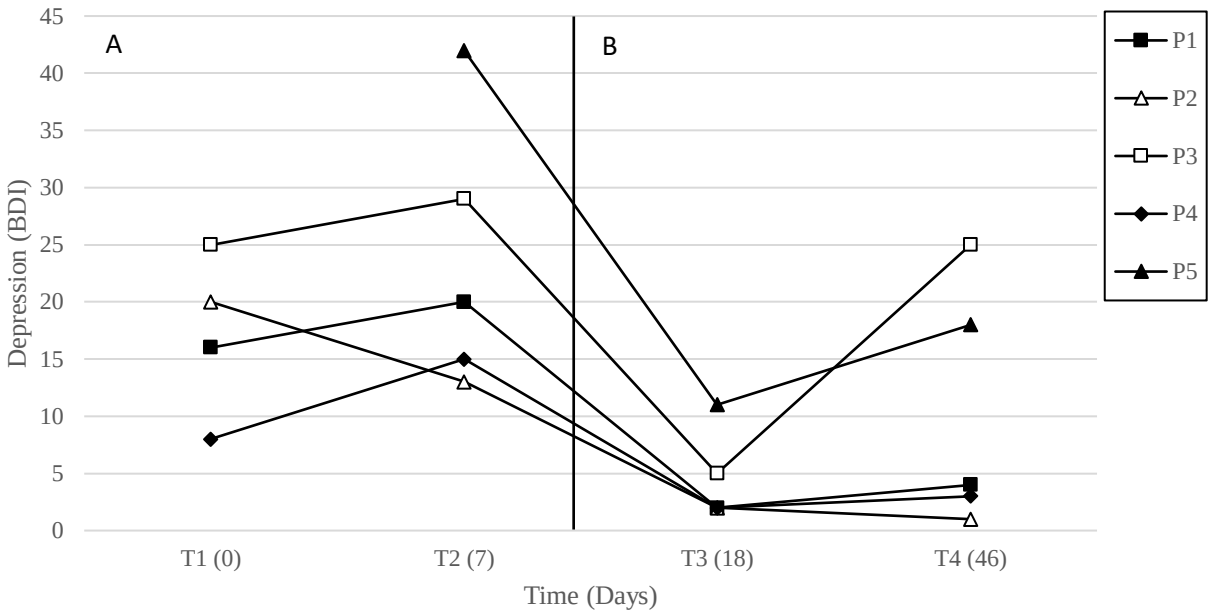


Figure 4. Depression scores as measured by BDI over time across baseline (A) and vision quest intervention (B) phases.

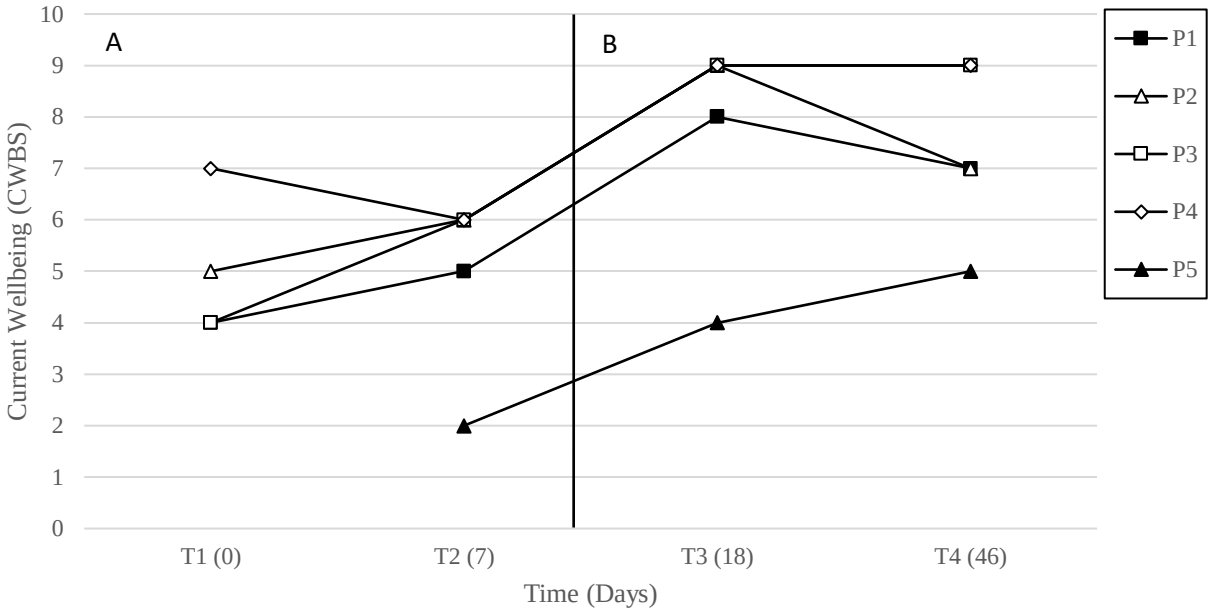


Figure 5. Current wellbeing scores as measured by CWBS over time across baseline (A) and vision quest intervention (B) phases. P5 omitted from statistical analysis.

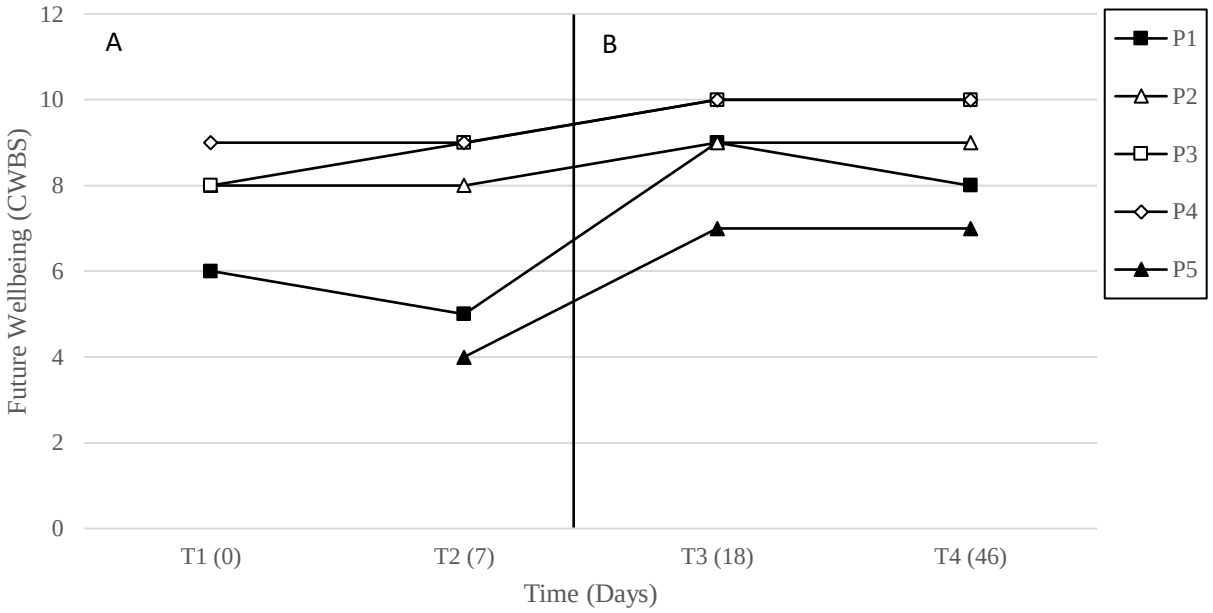


Figure 6. Future wellbeing scores as measured by CWBS over time across baseline (A) and vision quest intervention (B) phases. P5 omitted from statistical analysis.