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Comparing correlates of posttraumatic growth for military veteran versus non-military veteran samples

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ABSTRACT

Background: There has been a great deal of research on studying variables affecting posttraumatic growth (PTG) after a crisis or traumatic event across different samples. However, there has been little research comparing common correlates of PTG for military veteran versus non-military veteran samples. Using common demographic, trauma-related, and coping style variables, the research question tested if there were common correlates of PTG between a military veteran versus non-military veteran sample.
Methods: Using an online survey, we recruited 153 military veterans and 99 non-military veterans to compare on the study variables. The research design was cross-sectional.
Results: Controlled for demographic (gender, race, age, and highest education level) and traumatic event variables (total number of traumatic events, how long ago most powerful traumatic event) had minimal impact on PTG. Three coping scales, positive reframing, self-distraction, and alternative work, were measured. Positive reframing was positively related to PTG for both samples. Self-distraction was a positive correlate to PTG for the non-military veteran sample, while alternative work was a positive correlate for the military veteran sample.
Conclusion: Further study of the motivation factors that contribute to positive reframing and alternative work could prove interesting to determine how PTG is gained. That self-distraction was a positive correlate to PTG for the non-military veteran sample suggests that such focusing away from the trauma/crisis may be helpful. Continued research on investigating common versus differentiating correlates of PTG for different samples is needed.

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Posttraumatic growth; military veteran; non-military veteran, coping scales

Introduction

Posttraumatic growth (PTG) involves psychological changes that an individual may experience from struggling with stressful or traumatic life events [1]. Cann et al. [2] successfully developed a 10-item short form of the Posttraumatic Growth Inventory (PTGI) that includes two items from each of the five subscales of the original 21-item PTGI. The five dimensions are: Relating to Others, New Possibilities, Personal Strength, Spiritual Change, and Appreciation of Life. PTG has been studied with different samples experiencing a wide range of traumas, e.g., war veterans [3]; battered women [4]; and individuals with medical conditions [5]. However, little research has directly compared correlates of PTG for a military veteran versus a non-military veteran sample. That was the purpose of this study.

Coping variable correlates of PTG

Adaptive or approach-oriented coping strategies have been previously found to be positively related to PTG [4,5]. One adaptive coping strategy involves reappraisal [6] or re-interpreting the trauma/crisis in a more positive way. One avoidance or maladaptive-based coping strategy is self-distraction or doing other activities to not think about the trauma [7]. Alternative work can represent a specific form of active coping, which involves taking action to make the situation better [8]. Finding alternative work can allow for renewed purpose in life [9], as well as

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perceived mastery which was positively related to mental health in a study of Canadian military personnel returning from overseas deployment [10].

Controlling for demographic and traumatic events

Prior trauma-related studies have controlled for demographic variables (e.g., race, age, and education level) as well as the time since a traumatic event and number of traumatic events in their research designs [11,12]. Demographic and traumatic event variables will be controlled for in this study prior to testing for the impact of coping variables for explaining PTG.

Research question

Given the lack of prior research comparing military veteran versus non-military veteran samples, this study asked the following research question (RQ):

Are their different correlates for explaining posttraumatic growth for military veteran versus non-military veteran samples?

Methods

Participants and procedure

In Spring 2019, a Qualtrics, a pre-tested survey link was sent out to different respondents asking them if they had experienced a past traumatic event (TE), and if so to answer items related to how they experienced this TE. Prior research has suggested that there is a minimal risk when asking respondents to remember a prior TE [13]. Respondents were told to skip an item if it was too upsetting to answer. Attention was given to finding military veterans. The second author had contacts with several organizations involved with veterans. The survey was anonymous and took approximately 15 minutes to fill out. Once respondents submitted this first survey, they were automatically taken to a separate second survey which was much shorter. This survey asked for an email address, so respondents could be randomly selected for either $50, $20, or $10. multiple gift card drawings. A voluntary consent item was given immediately in the survey, and respondents were asked to not take the survey if they were less than 18 years old. IRB approval was given for this project. Over a period of approximately 3 months, there were 320 respondents to the first survey, and 269 to the second survey. Unfortunately, 68 of the respondents to the first survey had over 90% missing data and were discarded, leaving a sample of 252 respondents. This was the study sample used.

Measures

Military veteran

Respondents were asked, "are you a military veteran?", to which 153 said "yes" and 99 said "no." This allowed for comparing the two samples on all study variables.

Most powerful prior TE

A 14 item TE measure was used, asking respondents to pick "the one most powerful traumatic event you have faced either in the line of duty/doing your job or in a non-work situation. This is the event that you feel had the greatest impact on you." The 14-items used had much overlap with previous TE measures [11,14], but given the focus on a military veteran sample, had more TE items asking about different military-related situations. In addition, a separate "other" category allowed the respondent to fill in their own most powerful TE if it was not on the list. This measure and the responses, separated by military veteran versus non-military veteran, are reported in Table 1.

Occupational breakdown of two samples

Respondents were asked, "if you are currently working either part-time (less than 35 hours/week) or full-time (at least 35 hours/week), what occupation best describes your current position?" Table 2 shows the occupational breakdown of the two different samples. There were 18 occupational categories and an additional "other," category which could be filled in.

Demographic variables

Four demographic variables were asked: gender, race, age, and highest education level. Table 3 shows the demographic breakdown of each sample. Age was reported in years but is collapsed into categories to save space in the Table 3.

Traumatic event variables

Two items were measured. The first asked respondents "if you have experienced more than one trauma category from the above list of 14 categories, please indicate how many trauma categories you have experienced." The response scale was from 1 = 2 to 6 = more than 6. Responses to this item were added to the initial "most powerful TE" answer to create a "total number of traumatic events" variable used in subsequent data analyses. The second item asked, "how long ago did you face the one most powerful traumatic event you identified above" (in

Table 1. Most powerful type of traumatic event by military versus non-military veteran samples.

Most powerful traumatic event faced	Military veteran sample (*n* = 153)	Non-military veteran sample (*n* = 99)
Killing/severely wounding enemy soldiers	*n* = 10	*n* = 0
Killing/severely wounding civilians	*n* = 2	*n* = 0
Seeing a comrade/fellow soldier killed/severely wounded	*n* = 38	*n* = 1
Being severely wounded/injured in combat	*n* = 8	*n* = 0
Killing/severely wounding someone committing a crime	*n* = 0	*n* = 1
Seeing a work colleague killed/severely wounded	*n* = 6	*n* = 3
Seeing a civilian(s) killed/severely injured during a crime scene, fire, or accident	*n* = 15	*n* = 8
Suffering a serious personal work-related injury/accident (being unable to work)	*n* = 2	*n* = 1
Seeing a work colleague suffer a serious work-related injury/accident (being unable to work)	*n* = 0	*n* = 2
Non-work: violent death of a family member (e.g., spouse, parent, child)/close friend, including suicide and drug overdose	*n* = 10	*n* = 6
Non-work: non-violent death (e.g., illness, accident, natural disaster) of a family member/close friend	*n* = 11	*n* = 24
Non-work: serious personal illness/injury/accident	*n* = 9	*n* = 11
Non-work: experiencing personal domestic violence/sexual assault/physical abuse	*n* = 10	*n* = 15
Non-work: witnessing domestic violence/sexual assault/physical abuse	*n* = 3	*n* = 3
Other—list (biggest listings)	*n* = 29	*n* = 24
Sexual assault in military or non-military		
Work harassment/abuse/discrimination	*n* = 3	*n* = 1
Extreme military situations (e.g., convoys, combat zone, plane emergencies)	*n* = 3	*n* = 1
Survivors' guilt	*n* = 3	*n* = 0
Work-related stress (e.g., armed forces mortuary; spectator heart attack; robbed)	*n* = 4	*n* = 0
Personal injury, e.g., not in combat	*n* = 4	*n* = 1
Witnessing a tragedy (e.g., veteran suicide; family member severe injury)	*n* = 2	*n* = 1
Living in alcoholic household	*n* = 4	*n* = 1
Working with children experiencing	*n* = 0	*n* = 2
Trauma	*n* = 0	*n* = 2
Spouse-related stress (e.g., divorce, car accident)	*n* = 0	*n* = 3
Family-related stress (e.g., homelessness; domestic verbal abuse)	*n* = 0	*n* = 3
Near death experience	*n* = 0	*n* = 2

the survey). Responses ranged from 1 = less than 6 months ago, to 14 = over 50 years ago.

Coping variables

Three variables were measured. The frame of reference provided was "please answer these items thinking about the one most powerful traumatic event you experienced." Two two-item coping scales from Carver [8] were used: self-distraction and positive reframing. A sample item for distraction was "I've been doing something to think less about it, e.g., watching TV, sleeping, reading, shopping." A sample item for positive reframing was "I've been looking for something positive in what happened." A two-item "alternative work" scale was created. The two items were: "I have found alternative work (e.g., volunteer, second job) that's more meaningful to me" and "I have found alternative work that is more satisfying to me." A 7-point response scale was used for each item, where 1 = Strongly Disagree

Table 2. Occupational frequency breakdown of military versus non-military veteran sample.

Occupational category-frequency	Military veteran sample (*n* = 153)	Non-military veteran sample (*n* = 99)
Fire fighter	*n* = 1	*n* = 0
Police officer	*n* = 3	*n* = 4
First Responder (e.g., EMT, Paramedic)	*n* = 0	*n* = 3
Other physical health-related professions (e.g., doctor, nurse, medical technologist)	*n* = 9	in = 4
Mental/Spiritual Health Profession (e.g., psychologist, clergy)	*n* = 6	*n* = 9
Education-related profession (e.g., teacher, school counselor, administrative)	*n* = 15	*n* = 16
Financial services-related profession (e.g., banking, insurance, financial planning)	*n* = 2	*n* = 4
Information technology (e.g., computer analyst, data processing specialist)	*n* = 4	*n* = 0
Government and public Administration	*n* = 5	*n* = 2
Hospitality or customer service-related (including retail sales)	*n* = 0	*n* = 5
Manufacturing-related	*n* = 5	*n* = 3
Legal services (e.g., lawyer, legal aid)	*n* = 2	*n* = 0
Construction-related (e.g., engineering building, maintenance, repair)	*n* = 6	*n* = 0
Transportation-related (commercial, private)	*n* = 0	*n* = 2
Entertainment (e.g., sports, media)	*n* = 3	*n* = 1
Human resources	*n* = 1	*n* = 1
Other—list (biggest listings)	*n* = 41	*n* = 24
Active duty military	*n* = 5	*n* = 0
Army/National Guard Reserves	*n* = 5	*n* = 5
Consultant-related/Life skills coach	*n* = 3	*n* = 1
Graduate student/student worker	*n* = 2	*n* = 4
Healthcare/medical sales	*n* = 3	*n* = 2
Management/office administration	*n* = 2	*n* = 2
Military-related (e.g., consultant)	*n* = 5	*n* = 0
Non-profit organization (e.g., library)	*n* = 0	*n* = 3
Research/scientist	*n* = 3	*n* = 3
Writer/theater-related/equine	*n* = 2	*n* = 2

to 7 = Strongly Agree. The following reliabilities (coefficient alphas) were found for these scales: self-distraction—0.83, positive reframing—0.89, and alternative work—0.93. These scale reliabilities are above the recommended 0.70 cutoff [15] for use.

Posttraumatic growth

This variable was measured using the 10-item short-form Post Traumatic Growth Inventory (PGTI) developed by Cann et al. [2]. The 10-item PGTI was shown to be equivalent to the long-form PTGI [2] and has been successfully used in prior research [1]. The 10-item measure contains two items for five factors: Relating to Others, e.g., "I have a greater sense of closeness with others;" New Possibilities, e.g., "I am able to do better things with my life;" Personal Strength, e.g., "I have discovered that I am stronger than I thought I was;" Spiritual Change, e.g., "I have a better understanding of spiritual matters;" and Appreciation of Life, e.g., "I have changed my priorities about what is important in life." Respondents were asked to "think about the one most powerful traumatic event or crisis you experienced" when answering these items. Item responses were made using a 6-point response scale, where 1 = I did not experience this change as a result of my crisis, to 6 = I did experience this change to a very great degree as a result of my crisis. The scale reliability using this sample was 0.91.

Social desirability response bias

A two-item scale based on Paulhus [16] was used. A sample item is "I am always willing to admit it

Table 3. Frequency statistics for demographic variables—military veteran and non-military veteran samples.

Variable	Military veteran sample (*n* = 153)	Non-military veteran sample (*n* = 99)
Gender		
Male	*n* = 124	*n* = 46
Female	*n* = 28	*n* = 53
Did not identify	*n* = 1	
Race		
African American	*n* = 12	*n* = 6
American Indian	*n* = 0	*n* = 1
Asian	*n* = 7	*n* = 7
Hispanic	*n* = 8	*n* = 2
Multi-racial	*n* = 13	*n* = 4
Pacific Islander	*n* = 0	*n* = 0
White	*n* = 112	*n* = 78
Did not identify	*n* = 1	*n* = 1
Age (collapsed into categories for space)		
19–25	*n* = 14	*n* = 30
26–32	*n* = 30	*n* = 6
33–39	*n* = 34	*n* = 6
40–46	*n* = 14	*n* = 5
47–53	*n* = 18	*n* = 7
54–60	*n* = 5	*n* = 13
61–67	*n* = 6	*n* = 11
68–74	*n* = 26	*n* = 17
75 or more	*n* = 5	*n* = 4
Highest education level		
High school diploma	*n* = 3	*n* = 1
Some college	*n* = 22	*n* = 25
Associate degree	*n* = 15	*n* = 3
Four year degree	*n* = 53	*n* = 28
Masters' degree	*n* = 42	*n* = 25
Doctorate, medical, dental, or law	*n* = 17	*n* = 17
Degree	*n* = 1	
Did not identify		

when I make a mistake." A seven-point response scale was used, where 1 = strongly disagree to 7 = strongly agree. Coefficient alpha = 0.52.

Data analyses

All data were analyzed using SPSS-PC version 24 [17]. All data analyses compared the military veteran versus non-military veteran samples. Frequency breakdowns were done for most powerful TE, occupational category, and demographic variables. Means, standard deviations, and correlations between continuous variables were calculated. Finally, hierarchical regression analyses were done to show the incremental impact of the demographic variables set, followed by the traumatic event variables set, and finally, the coping variables set for explaining PTG. This order of variable sets is consistent with prior studies [11,12]. Listwise deletion of data was used for the correlation and regression analyses. This resulted in some additional missing data. For the regression analyses, it was determined that the assumptions of no multicollinearity, linearity, and homoscedasticity were satisfactorily met [18]. Only the final hierarchical regression models, with all individual correlates entered, are presented.

Results

Most powerful TE, occupational breakdown, and demographic breakdown by sample

As noted earlier, these results are shown in the first three Tables. Looking at the most powerful TE (Table 1), the highest reported TE frequency for the military veteran sample was "seeing a comrade/fellow soldier killed/severely wounded", *n* = 38; while for the non-military veteran sample, this was "non-work: non-violent death (e.g., illness, accident, and natural disaster) of a family member/close friend", *n* = 24. For occupational breakdown (Table 2), the

highest frequency for both the military (n = 15) veteran and non-military veteran (n = 16) samples was "education-related profession (e.g., teacher, school counselor, and administrative)." It should be pointed out that in the non-military veteran sample under "other," five respondents listed Army/National Guard Reserves. Reservists are military part-time and "other" most of the time, where other means earning their livelihood doing something else. Indeed, several of these respondents listed their occupations, e.g., mechanic, waitress, and tutor. Since these reservists are not military veterans and they are part-time in the military, they were placed in the non-military veteran sample for further analyses. Table 3 shows the demographic breakdown of the two samples. The military veteran sample was more male-dominated (n = 124, 81%) while the non-military veteran sample had more females (n = 53, 54%). Both samples are predominantly White. Given this similar race breakdown and very smaller numbers of non-whites in both samples, the race was recoded for the regression analyses [18], such that 1 = white, 2 = non-white (adding together all other races). The largest age category for the military veteran sample was 33–39, n = 34 (22%), while for the non-military veteran sample, it was 19–25, n = 30 (30%). However, there was a distribution across all age categories for both samples. The largest frequency for highest education level for each sample was "four year degree", n = 53 (35%) for the military veteran sample, and n = 28 (28%) for the non-military veteran sample. Again there was a distribution across all education level categories for both samples.

Correlation and regression analyses

Table 4 shows the means, standard deviations, and correlations for the continuously measured variables broken down for each sample. The variable means were fairly similar between both samples, with the military veteran sample reporting a higher total number of traumatic events, M = 3.23 versus the non-military veteran sample, M = 2.27. Looking at PTG, the non-military veteran sample had a slightly higher mean, M = 3.62 versus the military veteran sample, M = 3.44. For the correlations, the military veteran sample was below the diagonal (—), while the non-military veteran sample was above the diagonal. For both samples, age had a moderately positive correlation to how long ago the most powerful TE was, for the military veteran sample, $r(135) = 0.62$, $p < 0.001$, and for the non-military veteran sample, $r(86) = 0.50$, $p < 0.001$. The three different coping scale variables were sufficiently independent to be used separately for the regression analyses [18]. For the military

Table 4. Means, standard deviations, and correlations for continuous variables.

	Military Veteran (n = 137)		Non-military Veteran (n = 88)								
Measure	**M**	**SD**	**M**	**SD**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1. Age[a]	28.88	16.86	27.81	19.96	(—)	−0.09	0.50**	−0.16	0.16	.04	.01
2. Total Number of Traumatic Events[b]	3.23	2.19	2.27	1.52	−0.15	(—)	−0.14	0.30**	0.04	0.03	.20
3. How Long Ago Most Powerful Traumatic Event[c]	5.99	3.22	5.34	3.63	0.62**	−0.05	(—)	−0.26*	.11	0.15	0.09
4. Self-Distraction[d]	4.60	1.94	4.17	1.89	−0.20*	0.20*	−0.05	(—)	−0.01	.07	0.28**
5. Positive Reframing[d]	3.99	1.92	4.26	1.91	0.12	0.03	−0.04	−0.05	(—)	0.26*	0.25*
6. Alternative Work[d]	4.04	1.93	3.60	1.96	−0.05	0.04	0.06	−0.03	0.29**	(—)	0.03
7. Post Traumatic Growth[d]	3.44	1.35	3.62−	1.20	0.10	0.08	0.09	0.09	0.38**	0.26**	(—)

$p < 0.05$; ** $p < 0.01$ (two-tailed), military veteran sample correlations are below the diagonal (—), non-military veteran sample correlations are above the diagonal.

[a] Age, measured in years.

[b] Total Number of Traumatic Events, 1 = 1 to 7 = more than 6.

[c] How Long Ago Most Powerful Traumatic Event, where 1 = less than 6 months ago, 2 = 6 months to 1 year, 3 = 1 to 2 years, 4 = 3 to 5 years, 5 = 6 to 10 years, 6 = 11 to 15 years, 7 = 16 to 20 years, 8 = 21 to 25 years, 9 = 26 to 30 years, 10 = 31 to 35 years, 11 = 36 to 40 years 12 = 41 to 45 years, 13 = 46 to 50 years, 14 = over 50 years.

[d] Self-Distraction, Positive Reframing, Alternative Work, Post Traumatic Growth, 1 = strongly disagree to 7 = strongly agree.

veteran sample, positive reframing, $r(135) = 0.38$, $p < 0.001$, and alternative work, $r(135) = 0.26$, $p = 0.002$, were related to PTG, while for the non-military veteran sample, self-distraction, $r(86) = 0.28$, $p = 0.008$, and positive reframing, $r(86) = 0.25$, $p = 0.022$, were related to PTG.

Table 5 shows the final hierarchical regression models for each sample. Looking at the military veteran sample first, neither the demographic variable set nor the traumatic event variable set accounted for significant PTG variance and none of the variables in either set were significant. For the coping variable set, this variables set explained significant additional variance, $R^2 = 0.17$, $F(3, 127) = 8.94$, $p < 0.01$, and within this variable set, there were two significant correlates, *positive reframing*, $b = 0.24$ $t(134) = 3.90$, $p < 0.001$, 95% CI [0.12, 0.36], and *alternative work*, $b = 0.10$ $t(134) = 1.71$, $p = 0.089$, 95% CI [−0.02, 0.22]. Overall, 21% of the variance was explained for PTG using this sample, $R^2 = 0.21$, $F(9,127) = 3.74$, $p < 0.001$. Looking at the non-military veteran sample, neither the demographic variable set nor the traumatic event variable set accounted for significant PTG variance. Within the demographic variable set however, education level, $b = -0.20$ $t(84) = -1.90$, $p = 0.061$, 95% CI [−0.41, 0.01], was related to PTG. For the coping variable set, this variables set explained significant additional variance, $R^2 = .17$, $F(3, 77) = 5.79$, $p = 0.001$, and within this variable set, there were two significant correlates, *self-distraction*, $b = 0.21$ $t(84) = 3.00$, $p = 0.004$, 95% CI [0.07, 0.35], and *positive reframing*, $b = 0.15$ $t(84) = 2.21$, $p = 0.03$, 95% CI [0.01, 0.28]. Overall, 25% of the variance was explained for PTG using this sample, $R^2 = 0.25$, $F(9,77) = 2.84$, $p = 0.006$.

Discussion

To the authors' knowledge, this is one of the first studies to compare correlates of PTG for military veteran versus non-military veteran samples. Positive reframing was a positive correlate to PTG for both samples, which is consistent with general prior research [6]. However, while self-distraction was a positive correlate of PTG for the non-military

Table 5. Final stepwise regression model for incrementally testing the contributions of demographic, traumatic event, and coping variable sets for explaining post traumatic growth in military veteran versus non-military veteran samples.

	Military veteran sample (*N* = 137)				Non-military veteran sample (*N* = 87)			
	Post Traumatic Growth							
	b	**SE**	***R*²**	**Chg *R*²**	***b***	**SE**	***R*²**	**Chg *R*²**
Step 1: Demographic variables set								
Gender[a]	0.19	0.29			−0.35	0.25		
Race[b]	0.27	0.28			−0.08	0.31		
Age[c]	0.01	0.01			0.01	0.01		
Education level[d]	0.01	0.10			−.20+	0.11		
			0.03				0.03	
Step 2: Traumatic event variables set								
Total number of traumatic events[e]	0.02	0.05			0.07			
How long ago most powerful traumatic event[f]	0.04	0.04			0.07	0.04		
			0.04	0.01			0.08	0.05
Step 3: Coping variables set								
Self-distraction[g]	0.08	0.05			0.21**	0.07		
Positive reframing[g]	0.24**	0.06			0.15*	0.07		
Alternative work[g]	0.10+	0.06			0.07	0.06		
			0.21**	0.17**			0.25**	0.17**

b is unstandardized regression weight, SE = standard error; + $p < 0.10$; * $p < 0.05$,** $p < 0.01$; all two-tailed.
[a] Gender, 1 = male, 2 = female; [b] Race, 1= white, 2 = non-white; [c] Age in years, from 18 to over 75; [d] Education Level, 1 = Some high School to 7 = doctorate, medical, dental or law degree; [e] Total Number of Traumatic Events, from 1=1 to 7= more than 6; [f] How Long Ago Most Powerful Traumatic Event, 1 = less than 6 months ago to 14 = over 50 years ago; [g] Self-Distraction, Positive Reframing, Alternative Work, 1= strongly disagree to 7 = strongly agree.

veteran sample, alternative work was a positive correlate of PTG for the military veteran sample. The positive direction for self-distraction was somewhat surprising since self-distraction is thought to be a more avoidance-based coping strategy [7]. The positive direction for alternative work supports prior research suggesting that alternative work can help someone gain a renewed purpose in life [9]. Long-term discussion by the second author with military veterans provides anecdotal support that military veterans often seek alternative work to further improve their personal growth. This study was able to use a promising new two-item scale to measure alternative work.

Limitations and future research

One limitation is the self-report, cross-sectional research design of this study. Thus, no causal inferences can be made. However, a one-factor test [19] showed that there were eight factors with eigenvalues of at least 1.0 and the first factor accounted for 23% of the variance. If this first factor represents common method variance, it is not an overriding limitation. In addition, social desirable response bias [15] was not related to PTG for either sample although the scale reliability was weak. Another limitation is to ask respondents to retrospectively remember a powerful TE and then answer different questions about it. However, such retrospection is common in TE research [7,13]. Although the PTGI has been commonly used as a scale [3.4], its retrospective nature for estimating perceived growth has been critiqued around respondents being able to accurately do this estimation [20]. Although convenience samples were used, descriptive data analyses indicated that the two samples were generally equivalent, and demographic and traumatic event variables were controlled prior to testing the coping variables for explaining PTG.

Implications for practice

We found that military veterans may reframe their trauma into lessons learned. War trauma is often severe. Consequently, if such trauma is acknowledged and then reframed into a lesson or learning experience, it may lead to positive growth. Veterans' support groups can help to promote this reframing in a safe confidential environment. Non-military veteran support groups can also help to promote this reframing in a safe supportive group environment, depending on the type of trauma suffered (e.g., spousal loss, child loss, parent loss). Looking at alternative work as a coping skill, military out-processing should continue to counsel/prepare veterans transitioning back to civilian life on finding/interviewing for jobs as well as identifying realistic new careers [21]. If not paid work, what type of volunteer work would a transitioning veteran find meaningful and how can he or she prepare for this? If a potential new career requires additional education, what resources are available to help the transitioning veteran get this education [22]. The authors intend to study further the role of higher education in supporting trauma reframing with veterans. Perhaps career counseling and selection of career goals may be influential for reframing the trauma of war.

Conclusion

Despite these study limitations, the results across both samples support positive reframing as a positive correlate to PTG. Alternative work was a positive correlate to PTG for the military veteran sample. Further study of the motivation factors that contribute to positive reframing and alternative work could prove interesting to determine how PTG is gained. That self-distraction was a positive correlate to PTG for the non-military veteran sample suggests that such focusing away from the trauma/crisis may be helpful. Continued research on investigating common versus differentiating correlates of PTG for different samples is needed. As such, the results found here should be regarded as promising, but in need of further study.

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Conflict of interest

The authors declared that they have no conflict of interest.

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