

Experience of post-traumatic growth in UK veterans with PTSD: a qualitative study

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ABSTRACT

Little is known about the experience of post-traumatic growth (PTG) within UK veterans. To address this, our study aims to understand the lived experience of PTG from the perspective of UK veterans who have received treatment for post-traumatic stress disorder. The study uses Interpretative Phenomenological Analysis to explore qualitative interviews conducted with a sample of veterans who reported experiences of PTG in a quantitative measure. The themes drawn from the interviews describe the veterans' lived experiences of growth following trauma and their understanding of how it occurred. Similarities and differences with the dimensions of a widely used PTG quantitative measure are outlined, and a possible veteran experience of growth and how it develops is described. The conclusions provide a basis for further investigation into the experience, acceptability and clinical application of PTG within a UK veteran-specific population.

INTRODUCTION

It has been suggested in the literature that post-traumatic growth (PTG) is the occurrence of positive changes following exposure to a traumatic event.¹ The phenomenon suggests that through the process of dealing with the event, survivors of trauma and adversity may actually surpass the level of functioning which existed prior to it.² Research has tended to employ constructed, quantitative measures for growth. The most widely used of these is the Post-Traumatic Growth Inventory (PTGI). The PTGI has five factors to describe dimensions of growth: relating to others, personal strength, new possibilities, appreciation of life and spiritual change.¹

Using such measures, evidence has suggested notable effect sizes reported by those who have experienced a range of traumas.³ In a systematic review of 39 studies, evidence of PTG was observed in between 30% and 70% of groups who had experienced trauma.⁴ These studies suggest that PTG is a relatively common phenomenon following trauma. Evidence suggests that there could be beneficial consequences of PTG on clinical outcomes in heterogeneous trauma populations. A meta-analysis linked growth to lower depression⁵ and research has found an association between the presence of PTG and better treatment response.⁶

Considering veterans specifically, studies using data from specific conflicts have found some evidence of positive perspectives on war experiences. One reported that 70% of US male veterans regarded their experience in Vietnam as mainly positive.⁷ A more recent large-scale study with a

Key messages

- ▶ Post-traumatic growth is an experience that resonates to an extent with this sample of UK veterans who have experienced military trauma.
- ▶ Post-traumatic growth in this setting is partially aligned with the extant literature, though themes suggest a more subtle experience with some differences in dimensions.
- ▶ Participants understood growth to have occurred following treatment for post-traumatic stress disorder symptoms accompanied with a commitment to change and social support.
- ▶ Further study is needed to explore psychological processes and clinical application of the post-traumatic growth with those who have experienced military trauma.

nationally representative sample of 3157 US veterans found high prevalence rates of PTG as measured by the PTGI; 50.1% of all veterans, and 72.0% of those who screened positively for post-traumatic stress disorder (PTSD) reported at least moderate PTG.⁸ These rates suggest that prevalence of growth following military-related trauma may align with the findings in other trauma populations. In the above study, among those veterans with PTSD, a relationship was observed between reporting PTG and better mental functioning and general health. This seems to indicate that a better understanding of PTG in the veteran population could have valuable clinical applications to dealing with the aftermath of traumatic experiences in the military—namely, to understand how PTG is experienced for veterans and the processes that facilitate it.

Understanding the antecedents and mechanisms of PTG could contribute to integrating PTG into treatment following military trauma. A review of the literature provides evidence of factors associated with experiencing PTG in heterogeneous trauma populations; these included social support, optimism and coping strategies.⁹ A longitudinal study demonstrated that the more emotional support received soon after diagnosis of serious illness, the higher the levels of PTG that were reported 8 years later.¹⁰ Associations between PTG with higher socioeconomic status, higher education and younger ages have also been found.⁴ The mechanisms underpinning PTG remain unclear; however, the literature has focused on schema approaches. These are based on the re-evaluation of assumptions about oneself and the world that may occur when such beliefs are shattered by the

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experience of trauma.¹¹ As with prevalence of PTG, there is a paucity of research exploring the antecedents and mechanisms of PTG in a UK veteran population.

Much of PTG research is based on a broad range of trauma event types, from cancer survivors¹² to survivors of terrorist atrocities.¹³ These may not be comparable with military traumas due to differences such as the repeated exposure to trauma common to military contexts or the lack of agency associated with acting in response to military command, so it is possible that findings from much of the extant research base may not be generalisable to the veteran population. While a confirmatory factor analysis conducted in the USA supported the applicability of the PTGI and its five dimensions to the veteran population,¹⁴ this has not been conducted within a UK veteran population with PTSD symptoms. As such, this cannot be taken as evidence to deny that the PTGI could miss elements of an individual's PTG.

The PTGI is the most commonly used quantitative measure in the study of growth.⁶ The PTGI asks participants to conduct a complex cognition operation and to rate their overall perceptions of change in specific areas of life since a specific point in time (the trauma event). Such an operation is vulnerable to a host of cognitive biases, including recall bias, recency bias and illusory bias. As with almost all questionnaires, social desirability bias and acquiescence bias may also influence responses.^{15 16} These may be heightened in veterans with complex PTSD symptoms that affect memory and executive function.¹⁷ This, taken in conjunction with the predetermined five factors of the PTGI, may mean that the use of the measure when exploring growth in a specific, possibly distinct, population is inappropriate as it could overlook the varied and unique set of positive benefits anecdotally typical of growth.¹⁸

In this study, we explored the lived experience of PTG for veterans who have recently received treatment for PTSD and reported growth according to the PTGI. We did this by exploring how veterans who have been exposed to military trauma experience positive changes or 'growth'? Using a qualitative methodology allowed us to go beyond the limitations posed by quantitative measures and explore how, and if, this group experience PTG. Our aim is to understand more about the experience of PTG in this specific context to better inform the clinical application of the construct. Qualitative research methods have been employed in research into PTG¹⁹ but not, to the authors' knowledge, in the UK veteran-specific context.

METHODS

The study adopted a qualitative approach to gain a more in-depth understanding of the experience of veterans who reported PTG via a constructed measure (PTGI). Interpretative Phenomenological Analysis (IPA) was chosen as the preferred methodology as it aims to explore the meaning of phenomena through a researcher's interpretation of individuals' accounts.²⁰ IPA has proved effective at yielding accounts of pervasive and integrated experiences, and has previously been used in research about PTG in other populations (eg, with adults bereaved by suicide²¹).

Setting

Participants for this study were recruited from a population of individuals who had previously contacted Combat Stress (CS), which is a national mental health charity that offers clinical services for UK veterans with mental health difficulties. All participants had completed a 6-week residential treatment programme for PTSD symptoms. A fuller description of the programme has been published elsewhere.²²

Sample

The inclusion criteria for this study were: (a) been exposed to military trauma, (b) being a UK veteran and (c) having completed treatment for PTSD between January 2013 and December 2014. In the UK, a veteran is defined as having completed at least 1 day of Armed Forces service.²³ Overall, 226 veterans met these criteria. These individuals were asked to complete the PTGI.¹ We were able to get responses from 149/266 (66%) of these participants. Participants who reported scores within the upper quartile range of PTG scores were randomly selected and invited to participate in this study. This purposive sampling approach was adopted to ensure that through interviewing we were drawing on the experiences of those who reported affinity with the concept of PTG, as defined by the PTGI. The sample size of eight was informed by the literature that suggests the optimum sample size when using IPA should be between 5 and 10,²⁴ as this is sufficient to allow themes to emerge and to reach a saturation point for new ideas within the specific context of the relatively homogenous sample.

Data collection

A semistructured interview schedule was developed to elicit qualitative data that would answer the research question and allow for flexibility during interviewing. The interview schedule was piloted with two veterans to ensure acceptability and understanding. Participants were asked about their experience of positive changes since experiencing military traumas (and were given opportunity to confirm or deny any positive changes), followed by a set of prompts to further explore meaning of topics described (eg, 'What does that mean for you?', 'What was it like to feel like that?', 'Can you tell me more about what that was like?') and reflecting to elicit further details. Participants were informed of the nature of the research which allowed them to explore areas in which they perceived 'growth'. The lead researcher conducted all interviews, over the telephone, each lasting between 30 and 60 min. Interviews were digitally recorded and the recordings were transcribed verbatim. In addition, participants' demographics were collected via a written questionnaire, these included age, gender and years in the military.

Data analysis

The analysis of the transcripts was conducted using the established guidance for IPA.^{24 25} This follows a process of initial familiarisation, rereading and noting of the transcript several times followed by collating of interpretative statements and developing emerging themes, and then grouping these themes based on connections. This analysis procedure was followed for each transcript, and newly emerging themes were explored in previously analysed transcripts. Analysis was conducted by the lead researcher (EP), who also conducted all interviews, to preserve the singularity of the researcher level of the double hermeneutic employed by the interpretative approach (meaning the researcher's interpretation of the participants' attempts to make sense of their experience). To ensure a transparent process of analysis, a record was maintained throughout permitting themes to be traced back to statements made by participants.²⁶ The lead researcher derived the themes, but discussion with coauthors served the purpose of triangulation (LS-H and DM), ensuring that the themes were accurately reflected in the raw data.

Ethical considerations

Ethical approval for this project was granted by the CS Ethics Committee. Informed, written consent was obtained from each

participant prior to interview. Confidentiality was ensured by the lead researcher who conducted the interviews, transcribing the recording verbatim and redacting identifying names or places. All participants were offered debriefing following the recorded interview and provided with guidance on how to seek further support with any ensuing concerns.

FINDINGS

Sample demographics

Table 1 outlines the demographic characteristics and the PTGI scores for each participant.

Overview of themes

IPA of the participants' interviews yielded two key themes. The first was related to the participants' experiences of growth and the second was related to how participants understood their experience of this growth to have come about. Quotes are presented to give a sense of the themes in the words of participants. Table 2 gives a summary of the themes.

Key theme 1: growth experience

Interpretation yielded some areas of life in which participants had experienced positive changes following trauma.

Acceptance of nuance in negative events and emotions

For several participants, it was understood that their perspectives and reactions to negative or unpleasant experiences changed. This was interpreted as an acceptance of nuance in positive and negative events and emotions, as opposed to '*black and white*' views on them. This change in outlook was highlighted as an improvement in the experience of life for the veterans, through acceptance and the ability to more successfully cope with difficulties.

Everyone has their ups and downs...everyone goes through life and if you are happy all the time, it wouldn't be normal. (Participant 1)

I could think more logically about stuff and decisions and how to deal with it, anxiety and anger in particular, I could just rationalise it and suddenly realise I was able to make positives out of it. (Participant 4)

I just...look at what I lost...but to me now that's just.... That's why I appreciate things, cos that's just bricks and mortar, I can sit and dwell on that and dwell on that and dwell on that, but that's never gonna change. So I've just gotta appreciate and be glad of what I've got now. (Participant 7)

Table 1 Participant demographics and Post-Traumatic Growth Inventory (PTGI) score

Participant	Age bracket	Gender	Months since treatment	Years in military	PTGI score (max. 105)
1	30–34	Male	11	6	77
2	45–49	Male	21	12	63
3	35–39	Male	9	5	94
4	55–59	Male	17	6	56
5	45–49	Male	17	14	72
6	45–49	Male	11	14	87
7	45–49	Male	13	18	63
8	25–29	Male	8	5	70

Table 2 Summary of key themes and subthemes

Key themes	
Growth experience	Growth development
<i>Subthemes</i>	<i>Subthemes</i>
Acceptance of nuance in negative events and emotions	Catalysing crisis
Appreciation of the external world	Proactively commit to change
Connecting with others	Open mindset to seeking help
Re-evaluating sense of purpose	Connecting with others through common trauma-related experiences
Gradual process of time	Understanding reactions to trauma
	Well-informed support network

Appreciation of the external world

Participants spoke about a greater appreciation of the world around them. This often focused on appreciation for external things or what were perceived as simpler things in life. This was interpreted as participants having an increased awareness of the rich details of the external world and therefore being able to find enjoyment in these. In the context of trauma, it is possible that this is associated with a greater consciousness of existence following experiences that highlighted mortality.

It's normally the little things that you appreciate more than, I suppose, the bigger things. (Participant 3)

Little things, like, simple things, like 'what a lovely day!', You don't just say it in passing, the sun is out, the sun is huge! (Participant 4)

I really appreciate what I've got and what I've done. You just take life a bit slower and just enjoy life a little bit better. (Participant 6)

When considering the context in the interpretation, this growth in appreciation may also be associated with the adjustment related to leaving the military and the change in living situation that may be a result of this. It could be an increased awareness due to the immediacy of the elements of life being appreciated.

Obviously there are loads of different things that you actually appreciate more. I mean one, you actually appreciate life a lot more. Err...you appreciate your family and obviously your kids and stuff like that. I mean when I was in the Army I didn't really.... look at it that way, until I actually got out and obviously...got diagnosed with PTSD and since I've had that and recognised those things...it's more....more in my face I suppose. (Participant 3)

I think that because of things that happened in the past, I think the will to live is stronger than it's ever been, you appreciate it more. (Participant 4)

Connecting with others

Participants described increased connection with other people, primarily relatives and partners. This manifested itself as improved or rekindled relationships. Experiences of these greater connections with loved ones were described as valuable positive change following trauma.

The relationship with my parents has improved massively, before it was non-existent. (Participant 1)

Relationships are everything, I probably have the best relationships I've had in years. And that is everything. (Participant 6)

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Or in some cases a new outward attitude or approach to other people in general that fostered better quality connections:

I've got the strength to help other people now. So I do a lot of.... I'm involved in quite a lot of charity work. (Participant 5)

I was very 'me-focused'...selfishly I guess and so on.... And now I manage it in a different way, I'm not like that. I give people sympathy....I am more sympathetic with other people, more understanding. (Participant 4)

Re-evaluating sense of purpose

The experience of growth in some cases featured participants describing what was interpreted as a re-evaluated sense of purpose or ambition, a changed sense of self that was distinct from their previous self-identity. This involved increased ownership and intentionality of one's purpose; it was determined and often associated with decisive action.

The strengths I've got now are very, very different from before, but they are very powerful. (Participant 4)

My direction has changed, I'm more accepting of who I am, I've chosen my path. (Participant 1)

I just want to go out and get my life back on track and get work. (Participant 3)

This manifested as the way in which the individual perceives his/her renewed contribution to the world, a change which is linked to experiencing trauma, a specific example being to help others:

It's brilliant that something as traumatic, if you like, as the events that we've suffered can be used to help other people. (Participant 5)

Gradual process of time

An overarching sense of the experience was that the growth had been a gradual change that came as a function of time. The change was not one that developed linearly or suddenly, rather it was dynamic and variable.

I think it's bit by bit actually....yeah....cos I've had ups and downs and it didn't come straight away... And I think it was through time...it was yeah... I can't put a definite time on it. (Participant 2)

What... what doesn't kill you makes you stronger... It's true in a lot of sense, but it doesn't happen overnight that's the thing (Participant 3)

Key theme 2: growth development

Much of what participants described was interpreted as referring to their understanding of how the areas of growth had come about. It felt important to participants to make sense of what had led them to experience these changes.

Catalysing crisis

When describing the experience of moving towards growth, while it was presented as a gradual, non-linear change, participants often referred to a specific point in time which acted as a turning point. This was often a notable crisis situation of very high distress, though not their index trauma experience. Rather it was a point at which they reached despair attributed to the negative symptoms dealing with trauma.

I was at absolute rock bottom, I didn't think I could carry on. (Participant 1)

I was close to suicide, I did start drinking a hell of a lot. (Participant 3)

It all finally went really wrong in February 2011, when I tried to put the lights out. (Participant 5)

This crisis point or loss was often attributed clearly to PTSD symptoms by participants. It typically occurred after several years of living with the symptoms in the cases of our participants. There was an implication that this crisis point provided a catalyst to change, either imposed by the veterans themselves or imposed by those close to the veteran.

Through PTSD, I lost my wife, my marriage broke up, I haven't seen or spoken to my son for over ten years (Participant 7):

My Mrs was like, you best sort yourself out or I am gone. (Participant 8)

Proactively commit to change

Typically following the crisis point outlined in the theme above, participants described a proactive commitment to making changes to themselves or their situation. The self-driven, effortful aspect of this theme was important to participants. Taking accountability for one's self and bringing about positive changes.

You've got to do it yourself, no one can do it for you, that's the key. (Participant 1)

You gotta fight for it....it's not gonna be given to you. You have to do these things to get better, that's my thought....It's like you can drag a horse to water but you can't make it drink! (Participant 2)

Open mindset to seeking help

In addition to the proactive approach to change, participants also specifically described their unbiased, non-judgemental approach to help offered to them by others. This was seen as essential and also a change from a previous mindset, perhaps of self-sufficiency. The theme relates to the experience of feeling greater connection with others. Interpreting this suggested an element of circularity in the growth experience that the increased ability to connect with others, with an open mindset, in turn contributed to increasing perceived growth.

I definitely know I couldn't have done it on my own, there's no way....And actually part of the very, very important thing of accepting that you need help...And that happened to me...you know...back then. I think that was so very, very important....realising that you need help and then accepting that help. (Participant 4)

I was open-minded as well, I had to come in with neutral, open-minded expectations. (Participant 5)

Connecting with others through common trauma-related experiences

A clearly expressed theme in almost all interviews was the experience of finding people who had common experiences and feelings following trauma; in particular connecting with others who participants had a perceived pre-existing connection with, namely veterans who had shared military experiences. This appeared to have an effect of normalisation of the individual's situation and feelings. There was also a sense of familiarity in returning to a supportive group, such as that experienced by some in the military. Interpretation of this relates to re-establishing the connection with the military positively to counteract the broken relationship with it following military trauma.

It's socialising, getting support, through being back with that team...yeah...I think that's....it's like going back to the family isn't it? Cos once you are in the Army, you're part of that family aren't you....? (Participant 2)

I actually got more strength from talking to the other guys and from the experience they had. (Participant 3)

Well-informed support network

As well as the characteristics of the veterans' own approach, participants attributed their growth to a supportive network of people around them, very often a partner or spouse.

It wasn't all me, you know....I had my girlfriend who was very supportive, I had my mates, and work was very supportive. (Participant 1)

It was not simply the presence of a support network that contributed. For this support network to positively contribute to growth in the participants' experience, those within it need to be well informed about the veteran's trauma and post-trauma experiences. They need to understand the veteran and their situation in a way that aligns with the veterans' own model of thinking. Often the support network plays an active role.

My partner is very kind and sympathetic, and gets it, and she understood me, she gets it right from the outset. She's understood my peculiarities... well not my peculiarities....my illness, as simple as that. (Participant 4)

Someone to say... 'come on, you're better than that', someone to push you and um...stops you ruminating over stuff as well. (Participant 6)

Understanding reactions to trauma

The understanding and reconciling of PTSD and its symptoms was an important aspect of being able to develop any growth. This involved being able to recognise the symptoms as related to trauma and therefore being able to separate these from a sense of own identity. In addition, interpreting this theme, there was an implied sense of restoring a feeling of control when experiencing negative symptoms. This understanding in itself was understood to contribute to feeling increased strength and growth.

I could relate all my symptoms to PTSD, whereas before I couldn't....I didn't know myself. So I didn't know why...well I knew when I felt it but I didn't know the proper reason why I felt like that. (Participant 7).

It's understanding PTSD, has made me stronger...so from that point of view I feel independent...and I don't blame PTSD for some of the problems I have now....I blame them more on outside influences that are normal. (Participant 5)

DISCUSSION

This study has examined the lived experience of PTG in UK veterans who have experienced military trauma and subsequently received treatment for symptoms of PTSD. The manifestation of how PTG is experienced by this sample has been described by the following subthemes: acceptance of nuance in negative events and emotions, appreciation of the external world, connecting with others, re-evaluating sense of purpose and gradual process of time. How individuals themselves make sense of how growth occurred has been described by the following subthemes: catalysing crisis, proactively commit to change, open mindset to seeking help, connecting with others through common trauma-related experiences, understanding reactions to trauma and well-informed support network.

One of the aims of this paper was to gain a richer understanding of the experience of PTG specific to a sample of UK veterans. The themes outlined are partially aligned with the dimensions depicted by the widely used PTGI. The PTGI dimension '*appreciation of life*' has similarities with our theme of appreciation of the external world, and the dimension '*relating to others*' is also reflected by our themes. This alignment is perhaps to be expected given our sample selection criteria being based on scores in the upper quartile of the PTGI. However, given this selection criteria it is interesting that some themes suggested ways in which the manifestation of PTG in our sample is not aligned with the construct as described in much of the literature. Some veterans described more subtle experiences as growth, such as being able to accept and see the '*shades of grey*' in negative events and emotions. Looking at the overall lived experience of growth described by our sample, it does not reflect the transformative life changes implied by some of the extant literature. These more subtle manifestations of PTG in this group may be missed by the quantitative measures of the construct, yet are of significance to the individuals' subjective growth experience. Previous literature has indicated that females score higher on measures of PTG.¹ Given this, the all-male purposive sample employed here may have had an impact on the extent of growth described.

The second key theme focused on how the veterans understood their experience of PTG to have occurred. The themes reflected some of the ideas from existing literature. The importance of social support has been associated with higher levels of PTG¹⁰ and this was reinforced in our findings within this UK veteran sample; specifically social support that is well informed and aligned with the veterans' own model of understanding the situation. This is referred to as '*expert companionship*' in the literature.²⁷ In our sample, this manifested itself in the form of family members or partners, and in finding common ground with other veterans. These subthemes demonstrate the importance of including family or partners appropriately in treatment or recovery following military trauma. They also suggest support for homogenous group-based treatments or support networks to promote development of growth.

Acceptance and understanding their reactions to trauma was important to participants within our sample. The veterans benefited from awareness and education aimed at explaining why their negative symptoms had occurred following trauma. Understanding the construct of PTSD and its mechanisms allowed veterans to understand that their psychological reactions to traumas were not indicative of characteristics or faults inherent to them.²⁸ This reassurance and restored sense of self as a functional person could be the foundation essential for growth to develop from.²⁹ This restoration may be of particular importance in the military context where the cultural and occupational demands require military personnel to continue as before following traumatic events. Consequently, their psychological reactions may be viewed as a personal failing rather than a functional response to trauma.

Participants reported that reaching a crisis point acted as a catalyst to seeking support and, in turn, experiencing growth. This theme highlights the high levels of emotional distress experienced by this group prior to experiences of growth. Other subthemes have delineated potential conditions that may promote growth, including an active commitment to change and an open mindset. These findings have potential implications for assessing readiness for any structured intervention aimed at promoting PTG.²⁸

While the literature supporting PTG has grown substantially over the last 30 years, the validity of PTG has been questioned

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by some. It is argued that PTG is simply resilience to trauma and the ability to cope, and that this is underestimated due to the tendency for research to focus on those who are struggling to cope.³⁰ It is feasible that the experiences described by our participants as attributed to growth are in fact a reduction of symptoms following treatment for PTSD or a coping mechanism developed to deal with reactions to trauma. The timing of data collection following treatment may have reduced our ability to delineate this. It is possible that the experiences described are, partially or in full, a response to treatment rather than trauma.

The setting of the research, conducted by the same entity as the participants received treatment from, could have introduced a social desirability or other cognitive bias into the answers provided by participants. To address this, the interviewer emphasised the independent nature of the research activity from the clinical activity of CS (the lead researcher operates independently from all clinical work of the organisation). Some influence is likely to have remained and this was considered throughout the interpretation of the transcripts. Further research with samples of UK veterans with varied and no treatment experience is needed to clarify the extent of this influence.

Our research aim was to explore the lived experience of PTG in veterans following treatment for PTSD. The methodology employed allowed us to focus on the subjective experience of the participants. As such, inferences discussed above are restricted to the circumstantial and personal characteristics of these veterans sampled. Employing a qualitative method allowed us to consider the concept of growth in this under-researched group, without the restrictions of the established measures which were primarily developed based on those who experienced other, arguably different, types of trauma.

CONCLUSION

This study has begun to describe PTG in a sample of UK veterans. This growth appears more subtle in its development compared with other descriptions in the extant literature, and may be underestimated by established measures such as the PTGI. Other implications of the findings reinforce previous literature, such as the role of social support and acceptance in promoting growth. We have suggested the symptoms of PTSD in this population may lead to a crisis point which acts as a catalyst to change leading to growth. Experiences of PTG may be misattributions of a reduction in symptoms of PTSD or establishing coping strategies. This suggests the need for further work to establish occurrence of growth in veterans, understand possible psychological processes underlying it and further explore the acceptability of the concept to this population.

Contributors EP was the principal investigator for this study, was involved in the design of the study, developed the analytical strategy for the paper, conducted the data collection and analyses, and wrote the paper. DM and LS-H were involved extensively in the design of the study, developing the analytical strategy for the paper, triangulation of data analysis and commented extensively on the paper.

Competing interests None declared.

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REFERENCES

- 1 Tedeschi RG, Calhoun LG. The Posttraumatic Growth Inventory: measuring the positive legacy of trauma. *J Trauma Stress* 1996;9:455–71.
- 2 Carver C. Resilience and thriving: issues, models, and linkages. *J Soc Issues* 1998;54:245–66.
- 3 Tedeschi R. Violence transformed: posttraumatic growth in survivors and their societies. *Aggress Violent Behav* 1999;4:319–41.
- 4 Linley PA, Joseph S. Positive change following trauma and adversity: a review. *J Trauma Stress* 2004;17:11–21.
- 5 Helgeson VS, Reynolds KA, Tomich PL. A meta-analytic review of benefit finding and growth. *J Consult Clin Psychol* 2006;74:797–816.
- 6 Joseph S, Linley P. *Positive psychological perspectives on posttraumatic stress: an integrative psychosocial framework*. New York: John Wiley & Sons, 2008.
- 7 Dohrenwend BP, Neria Y, Turner JB, et al. Positive tertiary appraisals and posttraumatic stress disorder in US male veterans of the war in Vietnam: the roles of positive affirmation, positive reformulation, and defensive denial. *J Consult Clin Psychol* 2004;72:417.
- 8 Tsai J, El-Gabalawy R, Sledge WH, et al. Post-traumatic growth among veterans in the USA: results from the National Health and Resilience in Veterans study. *Psychol Med* 2015;45:165–79.
- 9 Prati G, Pietrantonio L. Optimism, social support, and coping strategies as factors contributing to posttraumatic growth: a meta-analysis. *J Loss Trauma* 2009;14:363–88.
- 10 Schroevers MJ, Helgeson VS, Sanderma R, et al. Type of social support matters for prediction of posttraumatic growth among cancer survivors. *Psychooncology* 2010;19:46–53.
- 11 Janoff-Bulman R. *Schema-change perspectives on posttraumatic growth*. Handbook of Posttraumatic Growth, 2006:81–99.
- 12 Danhauer SC, Russell GB, Tedeschi RG, et al. A longitudinal investigation of posttraumatic growth in adult patients undergoing treatment for acute leukemia. *J Clin Psychol Med Settings* 2013;20:13–24.
- 13 Butler L, Blasey C, Garland R, et al. Posttraumatic growth following the terrorist attacks of September 11, 2001: cognitive, coping, and trauma symptom predictors in an internet convenience sample. *Traumatology* 2005;11:247–67.
- 14 Palmer G, Graca J, Occhietti K. Confirmatory factor analysis of the Posttraumatic Growth Inventory in a veteran sample with posttraumatic stress disorder. *J Loss Trauma* 2012;17:545–56.
- 15 Podsakoff PM, MacKenzie SB, Lee JY, et al. Common method biases in behavioral research: a critical review of the literature and recommended remedies. *J Appl Psychol* 2003;88:879.
- 16 Tourangeau R, Rips LJ, Rasinski K. *The psychology of survey response*. Cambridge University Press, 2000.
- 17 Koso M, Hansen S. Executive function and memory in posttraumatic stress disorder: a study of Bosnian war veterans. *Eur Psychiatry* 2006;21:167–73.
- 18 Park CL, Lechner SC. *Measurement issues in assessing growth following stressful life experiences*. Handbook of Posttraumatic Growth: Research and Practice, 2006:47–67.
- 19 Hefferon K, Greal M, Mutrie N. Post-traumatic growth and life threatening physical illness: a systematic review of the qualitative literature. *Br J Health Psychol* 2009;14:343–78.
- 20 Smith JA, Flowers P, Larkin M. *Interpretative phenomenological analysis: theory, method and research*. London: SAGE, 2009.
- 21 Smith A, Joseph S, Das Nair R. An interpretative phenomenological analysis of posttraumatic growth in adults bereaved by suicide. *J Loss Trauma* 2011;16:413–30.
- 22 Murphy D, Hodgman G, Carson C, et al. Mental health and functional impairment outcomes following a 6-week intensive treatment programme for UK military veterans with post-traumatic stress disorder (PTSD): a naturalistic study to explore dropout and health outcomes at follow-up. *BMJ Open* 2015;5:e007051.
- 23 Dandeker C, Iversen A, Ross J, et al. What is a veteran?. *Armed Forces Soc* 2006;32:161–77.
- 24 Smith JA, Osborn M. Interpretative phenomenological analysis. In: Smith JA, ed. *Qualitative psychology: a practical guide to research methods*. London: Sage, 2008:53–80.
- 25 Pietkiewicz I, Smith JA. A practical guide to using Interpretative Phenomenological Analysis in qualitative research psychology. *Psychol J* 2014;20:7–14.
- 26 Biggerstaff D, Thompson AR. Interpretative phenomenological analysis (IPA): a qualitative methodology of choice in healthcare research. *Qual Res Psychol* 2008;5:214–24.
- 27 Tedeschi R, Calhoun L. *Expert companions: posttraumatic growth in clinical practice*. Handbook of Posttraumatic Growth: Research and Practice, 2006:291–310.
- 28 Tedeschi RG. Posttraumatic growth in combat veterans. *J Clin Psychol Med Settings* 2011;18:137–44.
- 29 Tedeschi R, Calhoun L. Posttraumatic growth: conceptual foundations and empirical evidence. *Psychol Inq* 2004;15:1–18.
- 30 Bonanno GA. Loss, trauma, and human resilience: have we underestimated the human capacity to thrive after extremely aversive events? *Am Psychol* 2004;59:20.

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