

Bringing Back the Body into Positive Psychology: The Theory of *Corporeal Posttraumatic Growth in Breast Cancer Survivorship*

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Received October 1st, 2012; revised November 5th, 2012; accepted November 29th, 2012

Objective: Posttraumatic growth (PTG) is the phenomenon of surpassing levels of functioning than which existed before a traumatic event occurred. The objective of this study was to assess how the body may have had an influence on the facilitation, and as an outcome, of PTG. **Methods:** 83 female breast cancer survivors, 5 years post cancer diagnosis, were interviewed on their long-term experience of physical activity engagement. Inductive thematic analysis was used in order to ascertain whether or not there were any serendipitous expressions of posttraumatic growth. **Results:** 24% (n = 20) of the study mentioned experiencing some form of PTG, including both generic and corporeal specific domains. Of those that reported PTG, 70% were from the original physical activity intervention group indicating potential links between activity participation during cancer treatment and long term PTG. **Discussion:** The results support the theoretical viewpoint that recovery from physical illness may have a unique PTG journey in comparison to more cognitive/external sources of trauma. **Conclusions:** This is the first study to qualitatively collect longitudinal data from a large and unique sample on the experience of PTG following breast cancer survivorship. Furthermore, the author has coined this new addition of a more embodied experience of PTG, the theory of “*Corporeal Posttraumatic Growth*” and presents suggestions for future research.

Keywords: Positive Psychology; Corporeal Posttraumatic Growth; Breast Cancer; Physical Activity; Embodiment

Introduction

Positive psychology has been criticised for its lack of embodiment and focus on the body as part of human flourishing (Resnick et al., 2001; Hefferon & Mutrie, 2012). Furthermore, the role of the body in eudaimonic well being following adverse life events has been largely neglected. Research has shown that despite the suffering associated with traumatic events (e.g. cancer diagnosis) individuals are capable of thriving and even surpassing their previous levels of functioning than which existed before the traumatic event occurred (Calhoun, Tedeschi, Cann, & Hanks, 2010). Research into this phenomenon falls under the concept of Posttraumatic growth (PTG) and encompasses the ability to thrive in some or all of the following domains including: *Personal strength* (or perceived changes in self); *“Relating to others”*; *“Appreciation for life”* (or increased existential awareness); *“New possibilities”* and *“Spiritual change”* (Calhoun & Tedeschi, 2004, 2006).¹

Traditionally, PTG has been restricted to these 5 main domains which inform the current measurement tools. Despite high levels of reliability (Weiss, 2002; Shakespeare-Finch & Enders, 2008), recent research has argued that the measurement tools need to take into account trauma specific progression throughout the PTG process that are unique to different types of traumas (e.g. external versus internal transgressors; acute versus chronic threat) (Hefferon, Mutrie, & Greal, 2008, 2009, 2010; Hefferon, Sparkes, & Painter, 2011; Shakespeare-Finch &

Enders, 2008). More specifically, the current measurement tools do not take into account the corporeality of traumas, which is essential to understanding how people grow and relate to their embodied self after adversity.

The Body and Illness

Our body is fundamental in the process of experiencing hedonic and eudaimonic well being (Hefferon & Boniwell, 2011). Over the past 30 years, researchers have argued that the diagnosis of illness can create a heightened awareness of the body and the physical self (Frank, 1993, 1995, 1998, 2002). The body also has the ability to heighten our mortality awareness (Goldenberg, 2005) and only recently has this been linked to the concept of post-traumatic growth (Hefferon, Mutrie, & Greal, 2008, 2009, 2010). Trauma and transformation from illness can create an environment in which there is a reconnection to the body (Frank, 1995; Hefferon et al., 2009), thereby creating enhanced appreciation for the body, increased care towards the body (listening to the body; treating it better) and increased health behaviour changes (teachable moments, see Demark Wahnefried et al., 2000). Despite the copious amounts of research supporting this (see Hefferon et al., 2009 for a systematic review), there remains a dearth of literature within this area.

Although breast cancer is one of the most researched areas in PTG, less is known about how PTG develops over time (Joseph, 2011). For cancer survivors, the 5-year post diagnosis period elicits several mini traumas in addition to the threat of re-occurrence, leading many to claim that they are never really

¹It is important to note that PTG does not dismiss the negative experiences but recognises that PTG and distress can co-occur (Morris & Shakespeare-Finch, 2010).

“post-trauma”. Thus, research into the long-term experiences of PTG is essential for the development of our understandings of the phenomenon.

In conclusion, the study aimed to supplement the longitudinal literature on PTG within a unique and large breast cancer sample. More precisely, the aim of the study was to understand, from a qualitative perspective:

- 1) How breast cancer patients experience PTG over a 5 year survival period and
- 2) What role, if any, did the body have in their experience of PTG?

Methods

Ethical approval was obtained by the University of East London and the University of Strathclyde.

Participants and Procedure

This study was part of the 5-year follow up of the Mutrie et al. (2007) randomised control trial (see Mutrie et al., 2012 for full participant information and recruitment procedure). The original study (2007) focused on the benefits of regular aerobic activity as a rehabilitation strategy for women receiving treatment for breast cancer. The results of that study showed that the intervention group had increased physical ability and decreased depression at completion and the 6 months follow up. The beneficial results remained at the 5 year follow up with the original intervention group scoring higher levels of leisure physical activity and positive moods (Mutrie et al., 2007; Mutrie et al., 2012).

Data was collected over a one-year period (January 2010 until December 2010) at various local sports facilities across Glasgow, Scotland. A research interview was carried out by a trained interviewer, after a 2-hour follow up assessment set of physical measures was taken from participants as part of the larger study (see Mutrie et al., 2012). Individuals participated in a time limited (15 minute) interview at the end of their assessment. The brevity of time allocated was due to the time constraints upon this project however the interview adhered to high quality guidelines (Yardley, 2000). The research interview focused on the perceived benefits and barriers to exercise participation that the women had experienced over the five-year period. The participants were not explicitly asked about their experience of PTG, thus all results emerged serendipitously.

Analysis

Due to the large sample size, Inductive Thematic Analysis was deemed the most appropriate method for the design of the study than other qualitative methods of inquiry (e.g. Interpretative Phenomenological Analysis) due to its flexibility and emphasis on nomothetic inquiry (Smith, 2008; Braun & Clarke, 2006).

The analysis included several readings of the transcripts (N = 83), by the author, so as to become familiar with the text (Willig, 2008). Individual's who displayed examples of the main domains of PTG, and the “6th domain” (*New awareness of the body*, see Hefferon et al., 2009) were isolated (N = 20). The researcher looked for major themes in relation to PTG, beyond surface level interpretation, organizing the text into coherent themes. The detail of analysis included line by line coding and then moving on to broader overarching themes to create the final master list

for both generic PTG themes and “body specific” themes (**Tables 1 and 2**) (Braun & Clarke, 2006).

Results

In total, 24% (n = 20) of the total study serendipitously mentioned experiencing some form of PTG 5 years post cancer diagnosis. Generic PTG domains included: *Stronger self* (20%); *Improved relationships* (10%); *Changed priorities* (5%); *Changed philosophy* (10%) (**Table 1**) and a new domain emerged, entitled *Corporeal awareness* (85%) (akin to the proposed 6th domain in Hefferon et al., 2009) (**Table 2**). Of those that reported some form of PTG, 70% were in the original intervention group (IG) (n = 14), which is an intriguing result with regards to activity participation during treatment and possible long term PTG.

Despite offering longitudinal data regarding PTG following cancer diagnosis, due to the already well-established research on the generic domains of PTG, this paper will focus solely on the examples of data in support of the new proposed concept of *Corporeal PTG* (**Table 2**) thereby progressing the literature area. The participants expressed examples of Corporeal awareness in the manor of 1) New relationship with body; and 2) Increased awareness of health and conscious health behaviour changes. These findings support the synthesis findings of a “6th” domain of PTG found in Hefferon et al.'s (2009) review of the PTG and illness research.

New Relationship with Body

The diagnosis of cancer brought about a “Corporeal awareness” which stemmed from the fact that the women were dealing with and negotiating a “new body”; one that many of them could not relate to, nor like. For example, Linda discussed how she saw a stranger in the mirror and how this negatively affected her body image and sense of identity:

“You still have a down day when you’re really feeling quite, em, you look in the mirror and you don’t know who’s looking back at you, you don’t like what you see. Your physical body changes as well, body image was one of the things that kind of upset me most after surgery.” (Linda)

Danielle also discussed the concept of 2 physical selves:

“I just feel it’s me now, I feel I’m back to me. I felt that [cancer physical self] was not me.” (Danielle)

The participants reported that by re-connecting with their body, they were able to regain, and then indeed surpass, their previous levels of physical functioning. This again highlights that women not only go through psychological and biological distress during cancer, but they have to also negotiate a “new

Table 1.
Posttraumatic growth 5-years post breast cancer diagnosis.

Posttraumatic Growth				
Stronger self	Improved relationships	Changed priorities	Changed philosophies	Corporeal awareness

Table 2.
Corporeal posttraumatic growth.

Corporeal Awareness	
New relationship with body	Increased awareness of health and conscious health behaviour changes

physical self'. The importance of this finding stems from the argument that our society is becoming increasingly dis-em-bodied (Frank, 1998) with an escalating negative relationship with our physical selves (Orbach, 2009). Unfortunately, it is not usually until something traumatic occurs that our "taken-for-granted" bodies are thrust into the forefront of our consciousness (Frank, 1995; Stam, 1998) and force us to take notice.

Through negotiating a new body, the participants also reported being "kinder" and listening to their body when it was telling them enough was enough. For example, Emer discussed how she began to put her body's needs above that of social engagements:

"If I can't manage it that day I'll just phone them up and say, 'look we'll do it another day'." (Emer)

This self regulation continued even further to some of the participants work arrangements, with Melissa recounting how she started to listen to her body when it was tiring out and instead of pushing herself, she reduced her workload from full to part-time:

"I found going full time was just too much. I was burnt out at the end of the year. I was doing too much. And having been where I was before, I saw the warning signs, and I thought, I'm not doing this to myself any more. So I went part-time." (Melissa)

The new relationship extended to the monitoring of the physical self, even utilising activity as a tool to measure their internal fitness:

"I'm a walker [...] I kind of knew before I was even diagnosed [for the second time]. They kept putting it down to something else [...] you went to the doctors saying there was something wrong because you couldn't walk as far." (Emer)

This theme was demonstrated in previous research on the original exercise group (Hefferon et al., 2008), thus showing continued engagement with "barometer" like activities over the 5-year survival process.

Importance of Health and Conscious Health Behaviour Changes

Many of the participants reflected upon a heightened importance of their health and subsequent conscious health behaviour changes, during the 5-year process. The possibility that they could have some form of control over their survival (and potential re-occurrence) meant that participants engaged in changes to their diet and exercise as well as the cessation of negative health practices (e.g. smoking). For example, Mary discussed how she quit smoking when she realised the gravity of her situation and the accountability she held for own health:

"I'm very aware—very much aware [of getting healthy]. Um, at the time, I was a smoker and I had to stop smoking after I had had my treatment, I thought—right, once I finish all that, that's clear, I'm gonna stop smoking. All these people are helping me [...] so I thought you know, it's crazy, I'm smoking away and everybody's trying to save me—so I made a decision that I would give up smoking." (Mary)

Changes in Diet

The women reported changes to their diet to reflect a more balanced, healthy regime and also to address the issues of weight gain from diagnosis to the 5 year follow up:

"Um, yes, I had to start eating healthily—a lot healthier than

I did. You know, for myself. I wanted to lose a bit of weight. Because the weight... during the chemotherapy, I went up tae eleven stone, maybe eleven and a half stone." (Lara)

"I did change my diet in general, I just do non-dairy now... So I just wanted to try and get back to my normal where I felt comfortable, because I just felt bloated and, I'd put on about two stone, over two stone. You know, just wasn't me." (Danielle)

The maintenance of a healthy weight and diet over the course of the cancer journey (diagnosis, treatment and then survivorship) is extremely important (Uhley & Jen, 2007). The women's new healthy approach to diet demonstrates positive health behaviour changes as a result of their cancer experience.

Increased Exercise Behaviours

Of the 20 participants, over 55% (n = 11) mentioned engaging in physical activity as a new benefit from their trauma and this was the strongest of all generic and 'corporeal' PTG domains. This is not surprising considering the fact that these women were part of an exercise RCT that encouraged activity participation during chemotherapy. However, what is surprising is their continued engagement and the heightened importance of activity over the 5 years.

"I was fairly active but I've upped it I would say since then. I feel as if that I take better care of myself. I would think now, I think more about myself [...] And I think as well when you've been through something like this you re-assess your life... I think I've reassessed it just with everything in my life including the activity [...] Well knowing that you're keeping your body healthy. I think it [...] you feel you've done a good job." (Joanne)

"I have been quite active [over past 5 years]. Again, it's getting me exercise, that's the most important point. That's what we go for, to get a bit of exercise...I think it keeps you healthy. [...] I wisnae really that active before that." (Anna)

"I felt it was really important to exercise because I had been ill and it was really important to keep myself fit. Even though I had done it before, it had took on more significance for me." (Sarah)

Hefferon and Mutrie (2012) hailed exercise as a "stellar" positive psychology intervention for not only normal but clinical populations. As the importance of health and activity was present in both the IG and CG groups, it could be argued that activity can be a universally adopted mode of controlled activity that enhances individual's awareness of health.

A good proportion of participants discussed moving "from nothing to something" with regards to their activity engagement. This shift towards exercise demonstrates the powerful impact of physical trauma on changes to subsequent and long-term health behaviours:

"I never, I never really went to keep fit, I didn't know how to do it, I learned, and like it." (Lara)

[And had you done any of those things before your breast cancer diagnosis?] Never. Never. Nothing. Never joined a club...Didn't do any exercises." (Ethel)

[Were you quite active before you were diagnosed with breast cancer?] Not really, no. [...] I didn't do it that often, so I really wasn't all that involved in exercise." (Nell)

The importance of exercise engagement after cancer diagnosis has been raised as an aid to alleviation of depression, fatigue and even survival (Humpel & Iverson, 2007; Holmes et al.,

2005). In the general population, there is copious amounts of research linking physical activity to enhanced physical and psychological functioning including enhanced positive emotions, self esteem, body image and overall well being (Biddle & Mutrie, 2008; Fox, 1997, 2000). This acute and chronic sense of well-being was seen by many of the participants:

"I felt a lot, oh I don't know? Just with doing the exercises I felt happier. Eh, I had a bounce in my step if you like, it was, it wasn't woe is me, it never was, but it, it, just kinda gave me that wee bit extra energy it gave me a wee boost kinda thing. Eh, I just felt happier about doing things. More likely to go out and do something, rather than just sit watching the telly." (Ethel)

In addition to adding increased positive emotions, engaging in exercise classes also seemed to engender a sense of purpose and achievement in the women's lives:

"You know, it's, it's... sets me off and gives me a purpose again." (Nell)

"[I do it] Cause its exercise. Giving me something to do, getting out of the house, meeting my friend, just having a chat. I feel nice about it. It's both [physical] and mental as well." (Ellen)

Finally, some of the women felt that by building physically stronger bodies, they were able to build psychologically stronger minds; a perfect example of the somato-psychic principle (Harris, 1973). Carole demonstrates this intricate relationship between activity and psychological strength, which is the epitome of *Corporeal PTG*:

"I sort of felt more positive thoughts like, just healthier. You know like healthier in that, you know this cancer's not going to come back [...] I'm very happy and I'm very positive about the future, and I feel that (clears throat) exercise has really, really helped me to have a very positive focus for my health. And I feel that, you know my attitude, and I do feel this is through exercise, because I feel mentally and physically alert and mentally positive because of the exercise. I actually now feel that, if see it did come back, I beat it once, and I'll, I'll do it again." (Carole)

The link between exercise engagement and induced feelings of power has been found within other clinical populations (Hefferon et al., 2012). If activity can bring about a perceived sense of strength in the face of adversity then perhaps treatment options should include exercise as an adjunct to traditional therapy.

Conclusion

This longitudinal study found evidence of the existence of generic and corporeal PTG domains (Tedeschi & Calhoun, 2006) 5 years post cancer diagnosis. The findings support the concept of a 6th domain of PTG in Hefferon et al.'s 2009 meta-synthesis on life threatening illness and PTG.

This data provides further support for future research into the theoretical view that physical illness may have a different growth journey and PTG outcomes than cognitive/external sources of trauma. This may be due to several reasons: 1) Illness is an attack on the body, by the body, and thus there will be issues of trust and negotiation with the body in the aftermath of diagnosis; 2) Illness and trauma that permanently alter the appearance/functioning of an individual (e.g. mastectomy, amputee, spinal cord injury) leave the person in a mortality salient environment with a constant reminder of the trauma. "*Corporeal Posttraumatic Growth*" is a new addition of a more em-

bodied perception of PTG, which dictates that as embodied individuals any trauma caused unto or within the body will entail a different reconstruction and journey to PTG than other types of trauma (e.g. caused by external transgressor).

The large discrepancies in reported growth at the 5 year follow up may have been due to the immediate support the original intervention group received during treatment, thereby suggesting that delays in support services could suppress the facilitation and maintenance of PTG over time. Furthermore, the opportunity to engage in activity during the crucial time period following diagnosis remained, 5 years later, a perceived 'saviour' for some of the women. The use of activity interventions for facilitating corporeal PTG should be considered in future research and as a treatment option for newly diagnosed cancer patients.

The main issues when interpreting the data is the possibility that as the women were not explicitly asked about their experience of PTG, there may have been further examples unaccounted for. Alternatively, the fact that the participants were all women may have inflated the incidence of PTG, as researchers have found a slight gender difference in PTG prevalence (Vishnevsky et al., 2010). Future research could include the utilisation of questionnaires to give an objective perspective, however these were not included due to time restrictions and to avoid the burden of participation.

Future research should employ multi-method approaches when deciphering longitudinal accounts of PTG (e.g. objective biomarkers, second person reports in addition to self-report measurements). Furthermore, the author argues that scales² should be developed for traumas that are caused by the body to the body and where there will be a re-negotiation with the body in order to return to some form of homeostasis.

Overall, this is the first study to qualitatively collect longitudinal data from a large and unique sample on the experience of PTG following breast cancer survivorship. Furthermore, the paper demonstrates evidence in support of the concept of Corporeal PTG, warranting further investigation into the body within the process of growth following adversity.

Acknowledgements

K. Hefferon would like to thank Nanette Mutrie and the Macmillan research team as well as the participants for their support and contribution.

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²The author is currently constructing the Corporeal Post-traumatic Growth Scale (CPTGS).

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