

Examining the Functional Utility of Personal Growth Initiative in a War-Affected Sri Lankan  
Sample

A. Demaske<sup>1</sup>, Laura E. R. Blackie<sup>2</sup>, Nuwan Jayawickreme<sup>3</sup>, & Eranda Jayawickreme<sup>1</sup>

<sup>1</sup>Wake Forest University, <sup>2</sup>University of Nottingham, <sup>3</sup>Manhattan College

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### **Abstract**

The present study explored personal growth initiative (PGI; Robitschek, 1998)—the extent a person is motivated to and actively sets goals towards achieving self-improvement—and its relationship to functional impairment and life satisfaction among a war-affected Sri Lankan sample. 200 war-affected Tamil individuals in Sri Lanka completed measures of PGI, wartime experiences, functional impairment, and life satisfaction. Two hierarchical regressions were conducted examining current life satisfaction and degree of functional impairment. After controlling for depression and wartime experiences, PGI was positively associated with life satisfaction. However, no association was observed between PGI and reduced functional impairment. In contrast to other contexts of ethnopolitical violence, PGI was associated with subjective well-being, but not improved functioning. These results have implications for potential utility of PGI across different contexts of ethnopolitical warfare.

**Public Significance Statement:** Having the skills and motivation to improve oneself was related to increased satisfaction with one's current life among forcibly displaced Sri Lankan individuals. This study highlights the role of positive constructs in sustaining mental health among survivors of ethnopolitical warfare.

*Keywords:* personal growth, resilience, trauma, ethnopolitical violence, well-being

## Introduction

The purpose of this paper is to explore the functional benefits of personal growth initiative (PGI) in a war-affected Sri Lankan sample. Research has shown that certain cognitive and environmental factors, such as purpose (MacLeod et al., 2016), self-efficacy (Correa-Velez et al., 2015), and social support (Fazel et al., 2012; Netuveli et al., 2008), are predictors of resilient functioning and mental health in the context of adversity. This paper therefore explores whether PGI predicts improved functioning and life satisfaction among sample of war-affected Sri Lankans.

Recent research on displaced individuals has emphasized the value of investigating not only depression, PTSD, and economic obstacles of displaced and conflict-affected persons, but also the individual's strengths and resources to foster resilience (e.g., Frazier et al., 2011; Jayawickreme et al., 2013; Jayawickreme & Blackie, 2014; Jayawickreme, Jayawickreme, Zachry, & Goonasekera, 2019; Shing, Jayawickreme, & Waugh, 2016). This resilience-focused perspective accounts for the experiences of many individuals who experience potentially-traumatic events without developing lasting mental health challenges, as well as individuals who continue to function adequately in daily life along despite challenges with their mental health (Miller et al., 2006).

PGI has been posited as one skillset that promotes intentional action in cultivating personal growth in areas relevant to the individual (Robitschek, 1998). A person with high levels of PGI would be motivated, for example, to desire greater financial stability, believe they could achieve it, and plan to achieve it by seeking employment at a community center. PGI requires self-efficacy to enact behavior (Ogunyemi & Mabekoje, 2007; Robitschek, 1998; Woerkom & Meyers, 2019), and similar to hope—another measure of positive future outlook—enacting PGI

positively predicts optimism, well-being and negatively predicts distress (Shorey et al., 2007; Snyder et al., 1996). Unlike *mental toughness*, PGI is not based upon specific outcomes (e.g. whether the individual becomes employed), nor contingent upon previous hardships (Gucciardi et al., 2015). Additionally, PGI as a mindset can be applied to a diverse set of goals, as defined and prioritized by the individual. This flexibility enables PGI to be robust across different cultural settings, from Brazilian citizens (Freitas et al., 2018) to Turkish students (Yalcin & Malkoc, 2013; see Bhattacharya & Mehrotra, 2014; Yang & Chang, 2014; and Yakunina et al., 2013 for more cross-cultural validations). Individuals with higher levels of PGI have been shown to exhibit less psychological distress over time (Weigold et al., 2018), fewer depressive symptoms, and higher well-being (Danitz et al., 2018). Additionally, PGI has been shown to be enhanced via intentional growth training (Thoen & Robitschek, 2013), strengths-based interventions (Woerkom & Meyers, 2019), and traditional psychotherapy (Danitz et al., 2018). PGI was also found to predict lower levels of functional impairment among survivors of the 1994 Rwandan genocide (Blackie et al., 2015). This may be because flexibility, focus on personal growth, and ability to develop a concrete action plan have the potential to help individuals cope with daily stressors related to their conflict-related experiences (Miller & Rasmussen, 2010).

### **The Sri Lankan Civil War**

The Sri Lankan civil war (1983-2009), which primarily involved the armed forces of the Sri Lankan government and the Liberation Tigers of Tamil Eelam, a Tamil separatist group, resulted in the deaths of at least 100,000 people and the displacement of 800,000 (E. Jayawickreme et al., 2010; Vhurumuku et al., 2012). Many of these 800,000 persons are internally displaced, experiencing many of the same challenges as refugee populations without

access to the refugee resources from the United Nations (United Nations Commission on Human Rights, 1998).

Sri Lanka provides an interesting context to study the utility of PGI, given that some evidence exists that the skillsets comprising PGI are valued in Sri Lanka. Notably, through a series of community interviews after the war, Somasundaram and Sivayokan (2013) identified “independent, mature personality” and “planning for their future” as two individual-level resilience outcomes of the conflict (p. 9). They also identified “[h]opelessness, helplessness, [and] powerlessness” as three societal/cultural-level distressful psychosocial effects (Somasundaram & Sivayokan, 2013, p. 9). One example of this “[h]opelessness, helplessness, [and] powerlessness” (Somasundaram & Sivayokan, 2013, p. 9) is the sense that some individuals do not fully utilize job training and other similar programs, even when they are available (Somasundaram, 2007). PGI may help people utilize these programs and resources, as people with higher personal growth initiative tend to seek treatment for depression sooner (Robitschek et al., 2019).

### **The Current Study**

Given the limited work assessing PGI in samples affected by ethnopolitical warfare, we examined its functional utility of among a war-affected Sri Lankan sample. In light of prior research linking PGI with increased well-being (Danitz et al., 2018) and functioning (Blackie et al., 2015), we hypothesized that PGI would predict higher levels of life satisfaction and lower levels of functional impairment among war-affected Sri Lankans.

## Method

### Participants

200 war-affected Tamil individuals (42 males, 157 females) were recruited from ten centers run by the Family Rehabilitation Centre (FRC)—a Sri Lanka-based, not-for-profit, nongovernmental organization (NGO) that provides counseling and other services to internally displaced populations in the northern and eastern provinces—located in northern and eastern provinces of Sri Lanka, after completing their sessions at the FRC in 2014. Participants ranged from 15-70 years old ( $Mean_{years} = 35.58$ ,  $SD = 12.77$ ).

Participants experienced a variety of war-related stressors as a result of the war (see supplementary tables). The most common traumatic event experienced was seeing a loved one die ( $n = 140$ ). The most common problems experienced as a result of the war were loss of material goods ( $n = 153$ ), lack of employment opportunities ( $n = 146$ ), and loss of land or home ( $n = 135$ ). The most common psychological or behavior problems experiences as a result of the war were “problems have made the heart broken” ( $n = 141$ ), avoiding going outside due to fear ( $n = 130$ ), constant worry ( $n = 126$ ), and fear of the future ( $n = 123$ ).

### Procedure

Participants were recruited after completion of their regular meeting at FRC to ensure they did not feel services were contingent upon study participation. Interested participants scheduled subsequent session at the FRC. Before participation, each participant was asked to read and sign a participant informed consent form. Trained health practitioners and staff members from the FRC were present to translate any questions from participants and responses from the PI. All study procedures were approved by the IRB at Wake Forest University

All measures were presented in the participants' native language, Tamil. Measures originally developed in English were initially translated into Tamil by two native speakers fluent in English. A translation monitoring form (van Ommeren et al., 1999) was used to record the translation, lexical back translation, and an evaluation of each measure item. This allowed translators to systematically identify and correct irrelevant, incomprehensible, unacceptable and incomplete elements of the translations. To ensure semantic equivalence, each item was then back translated into English again by two bilingual physicians. These English back-translations were then reviewed by members of the research team. Finally, this English back-translation was translated by a third set of bilingual physicians back into Tamil.

Participants were compensated 100 Sri Lankan rupees (approximately US \$1, enough to purchase lunch in this region) upon session completion. Previous research conducted in this region by the senior author used similar compensation protocols (N. Jayawickreme et al., 2012).

### **Measures**

Participants completed questionnaire packets that included: the World Health Organization Disability Assessment Scale (WHODAS-II; Janca et al., 1996), The Penn/RESIST/Peradeniya War Problems Questionnaire (PRPWPQ; N. Jayawickreme et al., 2009), the Temporal Satisfaction with Life Scale (TSL; Pavot et al., 1998), and the Personal Growth Initiative Scale (PGIS; Robitschek, 1998). They also provided responses to a set of additional measures not relevant to the current investigation.

### ***Functioning***

The World Health Organization Disability Assessment Scale (WHODAS-II; Janca et al., 1996) assess the respondent's degree and frequency of functional impairment within the past 30 days on a 5-point Likert scale, ranging from "none" to "extreme/cannot do." The WHODAS-II

measures functional impairment in six different domains: “1) Understanding and communication; 2) Self-care; 3) Mobility (getting around); 4) Interpersonal relationships (getting along with others); 5) Work and household roles (life activities); and 6) Community and civic roles (participation)” (Blackie et al., 2015, pp. 10–11). We summed together the 12 items to create a global disability score ranging from 0 (no disability) to 48 (complete disability). In a systematic review of 811 studies from 94 countries, Federici et al. (2017) concluded that the WHODAS-II was a reliable, valid measure of disability across a variety of settings and populations (Federici et al., 2017). Another systematic review of the WHODAS-II’s use in assessing chronic physical disorders in the general population (14 studies; > 31,000 participants) noted Cronbach’s alphas in the reviewed studies were overall quite high, up to  $\alpha = .94$  (Saltychev et al., 2019). The overall reliability of the WHODAS-II in our sample was satisfactory ( $\alpha = .80$ ). Descriptive statistics for the WHODAS-II can be found in the supplementary materials.

### ***War-Related Trauma, General, Psychological, and Behavioral Problems***

The 159 item Penn/RESIST/Peradeniya War Problems Questionnaire (PRPWQ) measures respondents’ 1) Trauma Exposure (17 items), 2) War-Related General Problems (82 items) and 3) War-Related Psychological and Behavioral Problems (60 items; N. Jayawickreme et al., 2017; N. Jayawickreme et al., 2012; N. Jayawickreme et al., 2009). Trauma Exposure is subdivided into two sections: torture (9 items) and other war trauma (8 items). War-Related General Problems is subdivided into five sections: family problems (17 items), economic problems (10 items), social problems (26 items), lack of basic needs (9 items) and physical problems (19 items; N. Jayawickreme et al., 2017). War-Related Psychological and Behavioral Problems consists of three subsections: anxiety (18 items), depression (21 items), and other



symptoms (18 items). In the Trauma Exposure and War-Related General Problems sections, respondents answered whether they experienced the problem. In the Psychological and Behavioral Problems sections, they rated on a 5-point Likert scale ranging from 1 (“Disagree”) to 5 (“Agree”) whether each symptom “strongly impacts their quality of life”. For the current study each subsection was summed separately.

The PRPWPQ was developed as a culturally-specific metric of respondents’ exposure to trauma, daily problems, psychological problems, and behavioral problems relating to or resulting from the Sri Lankan civil war. Culturally-specific metrics using local idioms of distress have demonstrated incremental validity above translations of established self-report measures (Rasmussen et al., 2018). When compared to the BDI and the PTSD Symptom Scale–Self Report (PSS; (Foa et al., 1993), the PRPWPQ has demonstrated incremental validity for functional impairment (N. Jayawickreme et al., 2012). The War-Related Family Problems Subscale has shown fair internal reliability ( $\alpha = .77$ ; Witting et al., 2019). Within our sample, the overall reliability of the sections’ subscales was excellent, with all alphas ranging .81-.95, save the Trauma subscale ( $\alpha = .68$ ). The relatively low reliability of the Trauma subscale is likely due to the heterogeneity of experiences in the sample.

### ***Life Satisfaction***

The 15-item Temporal Satisfaction with Life Scale (TSL) asks respondents the degree to which they agree with statements about their degree of life satisfaction in the past, present, and future on a 7-point Likert scale ranging from 1 (“Strongly Disagree”) to 7 (“Strongly Agree”; Pavot et al., 1998). We averaged together items 6-10 to create a current life satisfaction score. The scale’s three-factor structure has been validated in American (McIntosh, 2001) and Chinese samples (Ye, 2007), and a German translation of the scale has been developed (Trautwein,

2004). Internal reliability has been high between different populations; the reliability of a sample of 236 Turkish respondents was very good ( $\alpha = .87$  overall,  $\alpha = .88$  present), and the reliability of a sample of 737 elderly Spanish respondents was excellent ( $\alpha = .91$  overall,  $\alpha = .81$  present; Tomás et al., 2016), with a test-retest reliability of 0.81 (Akyurek et al., 2019). The reliability of the Present subscale in our sample was similarly high ( $\alpha = .84$ ).

### ***Personal Growth Initiative***

The original 9-item Personal Growth Initiative Scale (PGIS) asks respondents the degree that they agree with items that express their intentions towards personal growth on a 6-point Likert Scale ranging from 1 (“Definitely disagree”) to 6 (“Definitely Agree”) for a single factor (Robitschek, 1998). At the time of study design, we were not aware of the revised Personal Growth Initiative Scale II (PGIS-II; Robitschek et al., 2012). However, this inclusion had the benefit of enabling comparability between this study and the results of Blackie et al. (2015), which used the PGIS to examine the relationship of PGI on functional impairment among Rwandan genocide survivors. We summed together the 9 items. In a systematic review of PGI, Freitas et al. (2016) found the PGIS to have good construct validity, with internal reliability ranging from  $\alpha = .86$  (Robitschek, 2003) to  $\alpha = .90$  (Robitschek, 1998). The reliability of the PGIS in our sample was good ( $\alpha = .80$ ).

### **Data Analytic Plan**

To examine the construct validity of PGIS in this Sri Lankan sample, we calculated correlations using age, gender, number of stressful life events as measured by the PRPWPQ Trauma Exposure, PRPWPQ War-Related General Problems, PRPWPQ—Anxiety subscale, PRPWPQ—Depression subscale, PRPWPQ—Other Symptoms subscale, PGI, TSL Present, and WHODAS-II scores. We further compared these results to Blackie et al. (2015). Similar

correlational patterns to Blackie et al. (2015) would confirm the replicability of PGI in this Sri Lankan sample.

We calculated a pair of hierarchical (step-wise) regressions using SPSS v. 25 to examine whether the addition of PGI resulted in a significant increase in the proportion of variance accounted for by each of the regression models, and PGI was an independent and significant predictor of functional impairment (model 1) and life satisfaction (model 2) while controlling for the influence of the other variables. We selected our covariates based on the consistent finding that experiencing adverse life events (Jayawickreme et al., 2012) and increased levels of depression and PTSD (Blackie et al., 2015; McKnight & Kashdan, 2009) is associated with greater functional impairment and lower levels of well-being. We entered the variables of PRPWPQ Trauma Exposure, PRPWPQ War-Related General Problems, PRPWPQ War-Related Psychological and Behavioral Problems subsections of Anxiety, Depression, and Other Symptoms into the first block; and PGIS into the second block. Age and Gender did not have a significant effect on life satisfaction or functioning, so we did not include them in our regression analyses. PGIS would have to significantly predict additional variance in the given outcome variable, beyond age, gender, and PRPWPQ subscales to confirm our hypothesis. We expected a small-to-medium effect size ( $R^2 = 0.1-0.2$ ) to be a reasonable effect size for our outcome variables, based on researchers' previous findings of the relationship between PGI, functioning (e.g. Blackie et al., 2015), and life satisfaction (e.g. Stevic & Ward, 2008). We calculated a post-hoc power analyses using G-Power 3.1.9.4 (Faul et al., 2007). Power for each hierarchical regression was .98. This indicated that we had sufficient power for our analyses.

## Results

### Construct Validity of the PGIS

The PGIS demonstrated construct validity in-line with other studies of the PGIS with non-western samples, though dimensionality of the construct could not be assessed with this version of the PGIS. Correlations of WHODAS-II and depression scores to PGIS scores were in the same direction as Blackie and colleagues (2015), though generally slightly lower in magnitude. PGIS scores were negatively related to WHODAS-II ( $r = -.18, p = .01$ ; cf. Blackie et al.  $r = -.33, p < .01$ ) and depression ( $r = -.22, p < .01$ ; cf. Blackie et al.  $r = -.36, p < .01$ ) scores (2015, p. 25). Unlike Blackie and colleagues (2015), PGIS scores did not correlate significantly with age and gender in this sample. All descriptives and correlations for dependent variables are listed in Tables 1 and 2.

### Relationships with Functioning and Life Satisfaction

Overall, these models explain a significant amount of variance for functioning and current life satisfaction. These models explain 30.4% variation for functioning ( $F(10, 175) = 7.64, p < .001$ ) and 25.5% variation for current life satisfaction ( $F(10, 175) = 5.99, p < .001$ ), respectively (Tables 3 and 4).

When examining Step 1 predictors of functioning (Table 5), PRPWPQ Trauma, PRPWPQ Family Issues, PRPWPQ Economic Issues, PRPWPQ Social Problems, PRPWPQ Lack of Basic Needs, PRPWPQ Physical Problems, PRPWPQ Anxiety, PRPWPQ Depression, and PRPWPQ Other Symptoms significantly accounted for 29.7% of variation ( $\Delta F(9, 176) = 8.28, p < .001$ ) in functioning. PGI did not account for a significant amount of additional variance for functioning ( $\Delta R^2 = 0.006, \Delta F(1, 175) = 1.59, p = .21$ ).

Step 1 predictors of current life satisfaction (Table 6), PRPWPQ Trauma, PRPWPQ Family Issues, PRPWPQ Economic Issues, PRPWPQ Social Problems, PRPWPQ Lack of Basic Needs, PRPWPQ Physical Problems, PRPWPQ Anxiety, PRPWPQ Depression, and PRPWPQ Other Symptoms significantly account for 15% of variation ( $\Delta F(9, 176) = 3.44, p < .001$ ). PGI uniquely accounted for 11% of additional variance for current life satisfaction ( $\Delta R^2 = 0.11, \Delta F(1, 175) = 24.80, p < .001$ ).

### Discussion

PGI was found to be positively associated with current life satisfaction in this Sri Lankan sample. This was the case even when accounting for mental health and wartime experiences. However, PGI was not associated with improved functioning.

PGI accounted for a meaningful amount of variance (11%) in current life satisfaction. Researchers have found variance in life satisfaction is approximately 59% accounted for by heritability (see Caprara et al., 2009); thus, any single factor accounting for approximately a quarter of the remaining variance is not insignificant. These results are consistent with research that agency was associated with improved mental health in a sample of war-affected Sri Lankans (Jayawickreme et al., 2019). We note that culturally-sensitive measures of life satisfaction and personal growth initiative could help capture additional variance in future research (Jayawickreme et al., 2012).

In contrast to Blackie and colleagues' (2015) findings ( $\beta = -0.22, p = .01$ ), PGIS scores were not associated with differences in functioning in this Sri Lankan sample. Potential causes of this difference may be the small effect sizes of PGI, different timelines for rebuilding, and cultural and circumstantial differences between the two populations.

The finding that PGI did not predict functioning could, in part, be because the PGI measure utilized in this study focuses on assessing the cognitive aspects of PGI. Scores on the PRPWPQ Trauma subscale—for which the second-most-frequent response was having been injured in an attack—were uniquely associated with functioning. Correspondingly, the highest average scores of WHODAS-II items (indicated increased impairment) were those regarding participants' mobility. Thus, while PGI had a significant relationship for cognitive symptoms in this sample, it had a non-significant effect for physical symptoms (although see Jayawickreme & Blackie, 2019).

Another possibility is that PGI is a consequence, and not a catalyst, of growth. Danitz et al. (2018) and colleagues found that, in a post-hospitalized sample of 269 patients at an American hospital (2018, p. 1762), while PGI was predictive of lower depression and higher wellbeing, initial differences in PGI were not predictive of future depression or wellbeing (2018). However, PGI did increase during patients' stay. The fact that PGI did not predict mental health in that study—despite patients' overall increase in PGI—may indicate that, in some cases, PGI is a result of growth following adversity, and not a catalyst of growth itself. This could be the case for functioning in our Sri Lankan sample.

### **Potential Cultural, Historical, And Environmental Factors.**

Cultural, historical, and environmental factors may contribute to PGI's differential functioning between populations. When compared to the Rwandan genocide, the Sri Lankan Civil War was a longer conflict that only ended in 2009; these temporal differences could contribute to PGI's differential functioning. The longer conflict duration could lead to reduced PGI effectiveness. Closeness of acute wartime stressors to time of measurement could mean the effects of higher PGI have not yet manifested for functional impairment; it could be that higher

life satisfaction is a mediating variable for reduced functional impairment over a longer span of time.

PGI may also target a different level of resilience than what would affect individual functioning—personal instead of family or community-level resilience. When positive resilience factors were mentioned during post-war semi-structured interviews, they focused on family and community-level factors including: “functioning families; dedicated and experienced government and non-governmental officers, teachers and community workers; cultural and traditional beliefs, practices and rituals; commitment to education; and creative potential in narratives, drama such as the traditional *koothu* and other arts” (Somasundaram & Sivayokan, 2013, p. 13). This community and family-level focus is congruent with a broader Tamil focus upon the importance of family and community, which is also exhibited in Tamil refugee populations (Engebriksen, 2007). Broader findings for psychosocial interventions for people after humanitarian emergencies align with these themes. A 2017 systematic review found that, while psychosocial interventions may decrease emotional and conduct problems as well as PTSD symptoms (Mukdarut et al., 2017, Chiumento, Dickson, & Felix, 2017), they generally did not improve functioning.

Another potential factor may be individuals’ lack of opportunities to exercise PGI in meaningful ways. For example, Rwanda experienced economic growth and increased political and diplomatic stability between 2008 and 2014: holding multiple elections, re-opening trade with Congo, beginning to expand human rights, and the government facilitating reconciliation efforts (Arieff, 2014; Dagne, 2011). These likely provided opportunities for individuals to exercise PGI in meaningful ways, which may have not been the case in Sri Lanka.

It should also be noted that Blackie and colleagues' (2015) study was conducted in the context of the *Ndi Umunyarwanda* ("I am Rwandan") program (Republic of Rwanda- National Unity and Reconciliation Commission, n.d.), which is part of extensive Rwandan governmental efforts to promote national unity and post-conflict growth (Buckley-Zistel, 2009). The promises of PGI may play into and reinforce a specific national narrative concerning growth (Blackie et al., 2018). While there are national efforts in Sri Lanka to re-build (Athukorala, 2016; Bowden & Binns, 2016), it is possible that post-conflict personal growth may not be emphasized to the same degree as in Rwanda.

By contrast, the present study's participants most frequently cited lack of economic opportunities as a resultant problem they experienced from the war. Somasundaram and Sivayokan (2013) note that, in Sri Lanka, "youth showing motivation and developing skills in dealing with world [PGI], often lacked opportunities structures in a regularized and systemic way for meaningful income generation activities, vocational training, employment or further education" (p. 10), resulting in frustration. Indeed, they point to this frustration as one factor in Sri Lankan youths' participation in militant groups and development of antisocial behaviors (Somasundaram, 2007; 2013). According to one key informant from the Education Department, this lack of perceived opportunities has led to reduced student motivation and has contributed to the decline in national exam scores in the Northern Province (Somasundaram & Sivayokan, 2013, pp. 13–14). Even those who seem to be exercising the greatest PGI in communities, such as mothers, encounter social as well as physical obstacles (Somasundaram, 2007, p. 8), complicating and potentially further limiting their opportunities to exercise and create personal growth.



Limitations to this study include its cross-sectional design and reliance on a convenience sample. This means that the present study both cannot inform causal inferences and may not generalize to the broader Sri Lankan population. While this study's sample is sufficient to detect small-to-medium effect sizes, it is too small to reliably detect smaller effect sizes (e.g.  $R^2 < .05$ ) that may be present. Future studies with larger sample sizes may be able to detect these effects. Additionally, given the construct of PGI was developed among western populations, more research is needed to examine whether the PGIS has the same cross-cultural validity as the PGIS-II. Just as non-culturally normed measures of distress capture fewer aspects of individuals' experiences of distress than normed scales, the PGIS may not capture important culture-specific aspects of PGI. Similar to experiences of distress, evaluation of positive experiences differs between cultures. For example, emotions like excitement are more valued in western versus eastern populations (Lim, 2016). Psychological, anthropological, and ethnographic sources have distinguished seven narratives of growth after adversity (Meili & Maercker, 2019).

### **Future Directions**

Future research should continue to explore the utility of PGI in different samples. Topics explored should include factors in PGI's differential functioning (e.g., culture, presence of opportunities for personal growth, and life events), the temporal trajectory of PGI, the relationship of PGI to life satisfaction and functioning, and whether the construct of *growth initiative* could be conceptualized at group (i.e. community or family) levels (see Chang and Yang, 2016). Assessments of PGI that incorporate local idioms should also be developed and tested (Jayawickreme et al., 2012).

Assuming that PGI's effect on current life satisfaction is replicated in future research, intentional growth training (IGT; Thoen & Robitschek, 2013) or a strengths intervention for

survivors of the Sri Lankan civil war could be explored. IGT is targeted to directly enhance PGI by educating individuals about PGI and encouraging them to practice skills outside their comfort zones. IGT increased PGI in undergraduate (Thoen & Robitschek, 2013) and marginally increased PGI in a clinical sample (Thoen, 2013). IGT is a recently-developed intervention and has not been tested in non-western or forcibly displaced populations. Thus, future research could continue testing the efficacy of IGT compared to strengths or deficit-strengthening interventions and explore adapting IGT for non-western and forcibly displaced populations. A broader intervention approach, strengths interventions help individuals identify—and sometimes practice—thoughts, feelings, or behaviors in which they excel. Strengths interventions have been found to promote a variety of well-being-related outcomes above deficit-strengthening interventions (Meyers et al., 2015), including PGI (Ghielen et al., 2018; Woerkom, & Meyers, 2018); a strengths intervention has been shown to indirectly increase PGI through general self-efficacy in a western sample (Woerkom & Meyers, 2019). Strengths interventions could help increase physical and psychosocial well-being by facilitating re-building self-efficacy, and positive identity, affecting factors beyond PGI. For instance, in a similar intervention for refugees in Spain, which focused upon strengths-based peer-to-peer mentoring, significantly increased PTG in participants who completed the program in all PTG subscales except Spiritual Growth (Paloma et al., 2019).

IGT and strengths interventions would ideally be adapted to identify and practice PGI from a community-level, focusing on rebuilding trust and community support, in-line with other researchers' recommendations for post-disaster psychosocial interventions (Henderson & Elsass, 2015; Somasundaram, 2007). To create avenues for long-term, sustained community growth, any

intervention should be paired with opportunity-creating programs, focusing on economic development and education.

### **Conclusion**

This study examined the functional value of PGI in a war-affected Sri Lankan sample. The differences between Rwandan (Blackie et al., 2015) and Sri Lankan outcomes point to the potential differences in the efficacy of resilience-associated psychological factors in different contexts. Future research should examine the causes for these differences, which may include cultural factors, available opportunities for personal growth, and differences in experienced life events.

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**Table 1***Descriptive Statistics for Measures*

Measure	n	$\alpha$	M	SD	Minimum	Maximum
Age	200	—	35.59	12.77	15.00	70.00
Gender	199	—	0.21	0.41	0.00	1.00
PGIS	200	.80	40.52	7.51	9.00	53.00
TSL Present	198	.84	3.92	1.56	1.00	7.00
WHODAS-II	198	.80	24.53	7.95	5.00	50.00
RESIST Trauma	200	.68	2.85	2.30	0.00	14.00
RESIST Family	197	.81	3.76	3.40	0.00	18
Issues						
RESIST	200	.84	6.39	2.92	0.00	10
Economic Issues						
RESIST Social	199	.86	5.94	4.94	0.00	25
Problems						
RESIST Lack of	197	.86	2.77	2.75	0.00	9
Basic Needs						



RESIST	198	.83	3.71	3.56	0.00	17
Physical Problems						
RESIST	199	.91	51.76	15.94	15.00	85.00
Anxiety						
RESIST	197	.92	60.26	20.31	4.00	104.00
Depression						
RESIST Other	195	.86	45.50	13.81	1.00	87.00
Problems						

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*Note.* PGIS = Personal Growth Initiative Scale; TSL Present = Temporal Satisfaction with Life Scale, Present subscale; WHODAS-II = World Health Organization Disability Assessment Scale-II; RESIST Trauma = Penn/RESIST/Peradeniya War Problems Questionnaire, Trauma Exposure subscale; RESIST Family Issues = Penn/RESIST/Peradeniya War Problems Questionnaire, Family Problems subscale; RESIST Economic Issues = Penn/RESIST/Peradeniya War Problems Questionnaire, Economic Problems subscale; RESIST Social = Penn/RESIST/Peradeniya War Problems Questionnaire, Social Problems subscale; RESIST Lack of Basic Needs = Penn/RESIST/Peradeniya War Problems Questionnaire, Lack of Basic Needs subscale; RESIST Physical Problems = Penn/RESIST/Peradeniya War Problems Questionnaire, Physical Problems subscale; RESIST Anxiety = Penn/RESIST/Peradeniya War Problems Questionnaire, Anxiety subscale; RESIST Depression =

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Penn/RESIST/Peradeniya War Problems Questionnaire, Depression subscale; RESIST

Other Problems = Penn/RESIST/Peradeniya War Problems Questionnaire, Other

Symptoms subscale.

**Table 2**

*Correlations*

	1	2	3	4	5	6	7	8	9	10	11	12	13
1) Age													
2) Gender	0.06												
3) PGIS	-0.12	0.03											
4) TSL Present	-.19**	-0.04	.35***										
5) WHODAS-II	0.12	0.04	-.19**	-.22**									
6) RESIST Trauma	.20**	-0.02	-0.03	-0.05	.25***								
7) RESIST Family	.26***	-0.09	-0.06	-.19**	.21**	.38***							
8) RESIST Economic	.27***	0.01	0.04	-.27**	0.10	.24***	.37***						
9) RESIST Social	0.04	0.02	-0.05	-0.07	.15*	.40***	.52***	.39***					
10) RESIST Needs	0.12	0.025	-0.04	-.15*	.24***	.34***	.40***	.39***	.68***				
11) RESIST Physical	.16*	0.07	-0.09	-0.10	.26***	.47***	.57***	.33***	.57***	.44***			
12) RESIST Anxiety	0.02	-0.10	-0.11	-.14*	.41***	.17*	.30***	.21**	.36***	.37***	.27***		
13) RESIST Depression	0.11	-0.09	-.22**	-.28***	.49***	.25***	.35***	.28***	.38***	.38***	.32***	.67***	
14) RESIST Negative Perceptions	.18*	-0.03	-.15*	-.20**	.48***	.25***	.33***	.25***	.34***	.41***	.39***	.63***	.82***

*Note.* PGIS = Personal Growth Initiative Scale; TSL Present = Temporal Satisfaction with Life Scale, Present subscale;

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WHODAS-II = World Health Organization Disability Assessment Scale-II; RESIST Trauma = Penn/RESIST/Peradeniya War Problems Questionnaire, Trauma Exposure subscale; RESIST Family = Penn/RESIST/Peradeniya War Problems Questionnaire, Family Problems subscale; RESIST Economic = Penn/RESIST/Peradeniya War Problems Questionnaire, Economic Problems subscale; RESIST Social = Penn/RESIST/Peradeniya War Problems Questionnaire, Social Problems subscale; RESIST Needs = Penn/RESIST/Peradeniya War Problems Questionnaire, Lack of Basic Needs subscale; RESIST Physical = Penn/RESIST/Peradeniya War Problems Questionnaire, Physical Problems subscale; RESIST Anxiety = Penn/RESIST/Peradeniya War Problems Questionnaire, Anxiety subscale; RESIST Depression = Penn/RESIST/Peradeniya War Problems Questionnaire, Depression subscale; RESIST Negative Symptoms = Penn/RESIST/Peradeniya War Problems Questionnaire, Other Symptoms subscale.

† p < .10 \*p < .05 \*\* p < .01 \*\*\* p < .001

**Table 3**

*Block Entry Regression Showing Amount of Variance in Functional Impairment Accounted for by Established Measures<sup>a</sup> and the PGIS<sup>b</sup>*

Block	$\Delta R^2$	<i>df</i>	$\Delta F$
1	.30	9, 176	8.28***
2	.01	1, 175	2.09
<i>R</i> <sup>2</sup> total (adjusted)	.26		

*Note.*

<sup>a</sup> Penn/RESIST/Peradeniya War Problems Questionnaire, Trauma Exposure subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire, Family Problems subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire, Economic Problems subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire, Social Problems subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire, Lack of Basic Needs subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire, Physical Problems subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire, Anxiety subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire Depression subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire, Other Symptoms subscale; Block 1

<sup>c</sup> Block 2

<sup>†</sup>  $p < .10$  \* $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

**Table 4**

*Block Entry Regression Showing Amount of Variance in Current Life Satisfaction Accounted for by Established Measures<sup>a</sup> and the PGIS<sup>b</sup>*

Block	$\Delta R^2$	<i>df</i>	$\Delta F$
1	.15	9, 176	3.44***
2	.11	1, 175	24.80***
$R^2$ total (adjusted)	.21		

*Note.*

<sup>a</sup> Penn/RESIST/Peradeniya War Problems Questionnaire, Trauma Exposure subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire, Family Problems subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire, Economic Problems subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire, Social Problems subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire, Lack of Basic Needs subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire, Physical Problems subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire, Anxiety subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire Depression subscale;  
 Penn/RESIST/Peradeniya War Problems Questionnaire, Other Symptoms subscale; Block 1

<sup>c</sup> Block 2

<sup>†</sup>  $p < .10$  \* $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

**Table 5***Summary of hierarchical regression analysis on WHODAS-II*

Predictor	B	$\beta$	<i>t</i>
Block 1			
RESIST Trauma	0.250	0.071	0.968
RESIST Family Issues	-0.015	-0.006	-0.076
RESIST Economic Issues	-0.098	-0.035	-0.483
RESIST Social Problems	-0.363	-0.220	-2.225*
RESIST Lack of Basic Needs	0.272	0.092	1.027
RESIST Physical Problems	0.334	0.144	1.624
RESIST Anxiety	0.071	0.138	1.510
RESIST Depression	0.109	0.273	2.218*
RESIST Other Problems	0.084	0.143	1.201
Block 2			
RESIST Trauma	0.275	.083	1.061
RESIST Family Issues	-0.013	.004	-0.064
RESIST Economic Issues	-0.067	-.030	-0.328
RESIST Social Problems	-0.356	-.212	-2.188*
RESIST Lack of Basic Needs	0.272	.091	1.027
RESIST Physical Problems	0.303	.111	1.465
RESIST Anxiety	0.074	.148	1.570
RESIST Depression	0.097	.257	1.943*
RESIST Other Problems	0.088	.140	1.264
PGIS	-0.089	-.083	-1.262

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*Note.* PGIS = Personal Growth Initiative Scale; WHODAS-II = World Health Organization Disability Assessment Scale-II; RESIST Trauma = Penn/RESIST/Peradeniya War Problems Questionnaire, Trauma Exposure subscale; RESIST Family Issues = Penn/RESIST/Peradeniya War Problems Questionnaire, Family Problems subscale; RESIST Economic Issues = Penn/RESIST/Peradeniya War Problems Questionnaire, Economic Problems subscale; RESIST Social = Penn/RESIST/Peradeniya War Problems Questionnaire, Social Problems subscale; RESIST Lack of Basic Needs = Penn/RESIST/Peradeniya War Problems Questionnaire, Lack of Basic Needs subscale; RESIST Physical Problems = Penn/RESIST/Peradeniya War Problems Questionnaire, Physical Problems subscale; RESIST Anxiety = Penn/RESIST/Peradeniya War Problems Questionnaire, Anxiety subscale; RESIST Depression = Penn/RESIST/Peradeniya War Problems Questionnaire, Depression subscale; RESIST Other Problems = Penn/RESIST/Peradeniya War Problems Questionnaire, Other Symptoms subscale.

†  $p < .10$  \* $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$



**Table 6***Summary of hierarchical regression analysis on TSL (Present)*

Predictor	B	$\beta$	<i>t</i>
Block 1			
RESIST Trauma	1.277	1.277	1.277
RESIST Family Issues	-1.242	-1.242	-1.242
RESIST Economic Issues	-2.594	-2.594	-2.594**
RESIST Social Problems	1.584	1.584	1.584
RESIST Lack of Basic Needs	-1.091	-1.091	-1.091
RESIST Physical Problems	0.286	0.286	0.286
RESIST Anxiety	1.036	1.036	1.036
RESIST Depression	-2.749	-2.749	-2.749***
RESIST Other Problems	0.603	0.603	0.603
Block 2			
RESIST Trauma	0.051	0.075	0.987
RESIST Family Issues	-0.054	-0.116	-1.371
RESIST Economic Issues	-0.135	-0.254	-3.345***
RESIST Social Problems	0.050	0.156	1.531
RESIST Lack of Basic Needs	-0.061	-0.107	-1.155
RESIST Physical Problems	0.037	0.082	0.895
RESIST Anxiety	0.008	0.082	0.870
RESIST Depression	-0.019	-0.250	-1.934 <sup>†</sup>
RESIST Other Problems	0.005	0.048	0.394
PGIS	0.070	0.339	4.980***

*Note.* PGIS = Personal Growth Initiative Scale; TSL (Present) = Temporal Satisfaction with

Life Scale, Present subscale; RESIST Trauma = Penn/RESIST/Peradeniya War Problems

Questionnaire, Trauma Exposure subscale; RESIST Family Issues = Penn/RESIST/Peradeniya

War Problems Questionnaire, Family Problems subscale; RESIST Economic Issues =

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Penn/RESIST/Peradeniya War Problems Questionnaire, Economic Problems subscale; RESIST Social = Penn/RESIST/Peradeniya War Problems Questionnaire, Social Problems subscale; RESIST Lack of Basic Needs = Penn/RESIST/Peradeniya War Problems Questionnaire, Lack of Basic Needs subscale; RESIST Physical Problems = Penn/RESIST/Peradeniya War Problems Questionnaire, Physical Problems subscale; RESIST Anxiety = Penn/RESIST/Peradeniya War Problems Questionnaire, Anxiety subscale; RESIST Depression = Penn/RESIST/Peradeniya War Problems Questionnaire, Depression subscale; RESIST Other Problems = Penn/RESIST/Peradeniya War Problems Questionnaire, Other Symptoms subscale.

† p < .10 \*p < .05 \*\* p < .01 \*\*\* p < .001