

Introduction

-The rigors of medical school admissions, education, and residency are well known and extremely challenging. It begs the question as to what factors are in play when it comes to motivating people beyond these challenges to become physicians. In the past, it has been proposed that some people are motivated to become physicians through a drive to compensate for traumatic experiences.¹

-Posttraumatic Growth (PTG) is described by Tedeschi and Calhoun as a positive change that is the result of struggling through a highly challenging life event.² This change is measured across five domains:

1. relating to others
2. new possibilities
3. personal strength
4. spiritual change
5. appreciation of life

-Previous research demonstrated that trauma created opportunities for positive growth in medical students.³

-Medical student burnout has been documented with a prevalence of 20-50%.⁴

-Due to the fact that burnout can predict adverse future health status, it is important to understand the mechanisms that allow for positivity through trauma rather than burnout.⁴

-It is also important to understand the ways in which trauma has manifested a motivation to become a physician and how that motivation interacts with PTG and burnout.

Aims and Objectives

- 1) Determine if a portion of students identify a traumatic event as having a significant effect on their decision to pursue medicine as a career.
- 2) Evaluate PTG experienced by medical students at Oakland University William Beaumont School of Medicine (OUWB) on their journey to becoming a physician.
- 3) Assess the relationship of burnout and PTG and their relationships with medical student motivation.

Methods

-Medical students enrolled at OUWB were asked to complete a voluntary survey in the fall of 2019. A total of 96 Students completed this survey.
-Inclusion criteria was met if the participant experienced one of the stressful life events.

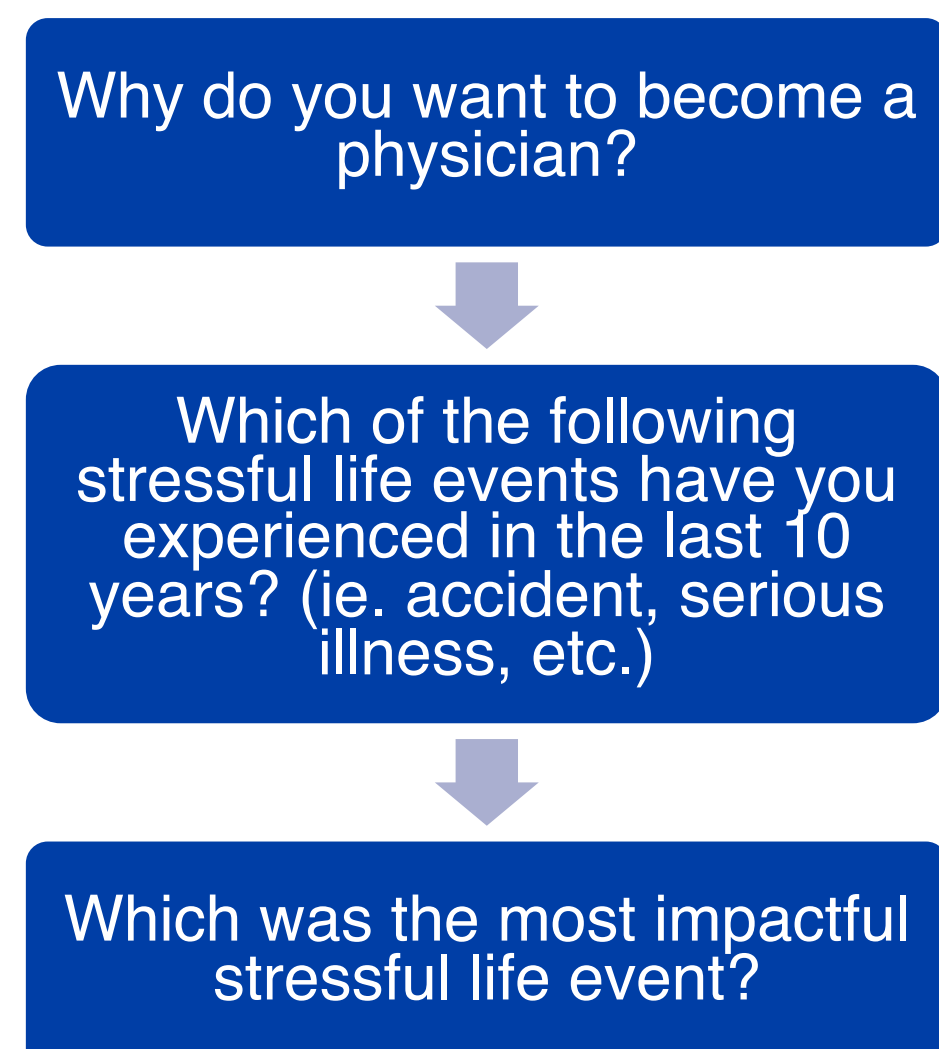


Figure 1. Example of questions that were asked in the survey

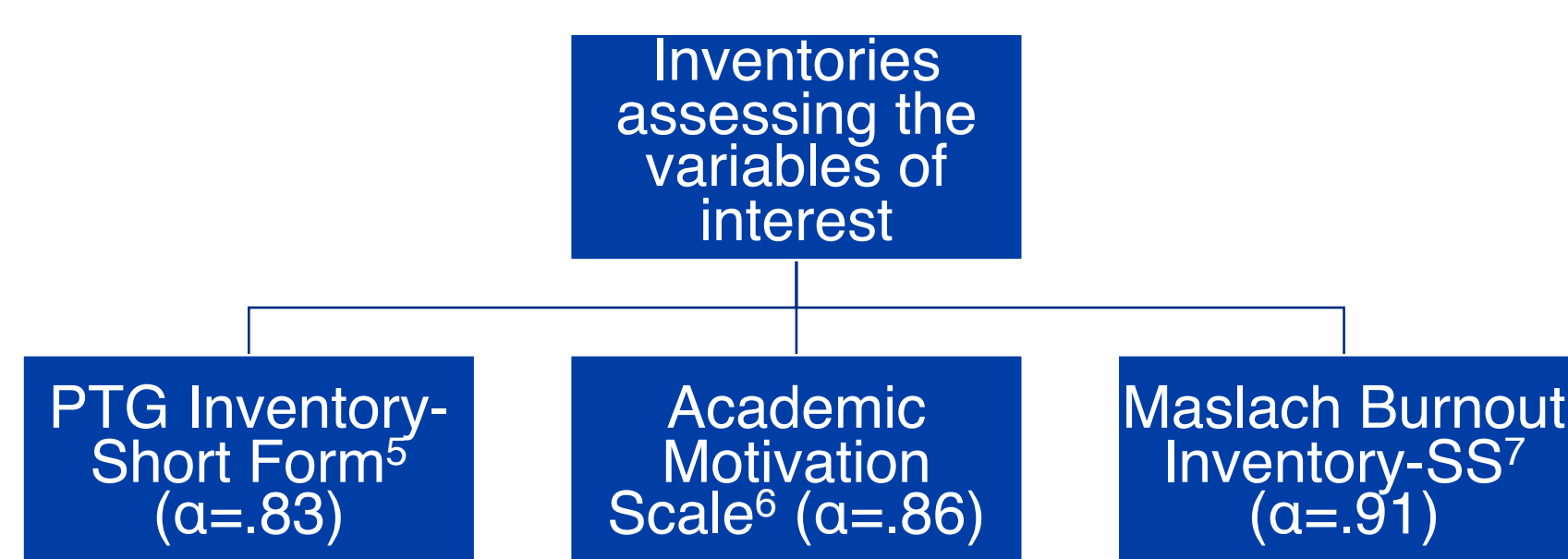


Figure 2. The three inventories that participants were asked to complete with associated Cronbach's alpha values

-Participants that identified a traumatic experience were then asked to complete a 14-question interview to better understand the nuances of the experience.

-A few examples of the questions asked:
 -"Please begin by telling me all of the factors that went into you deciding to become a physician."
 -"Of those factors, which one is most important to your decision?"
 -"What does burnout in medical school mean to you?"
 -"How do you think the experience of your event allows to you interact with burnout?"

-Survey results were analyzed using multivariate regression analysis. Interview responses were codified and analyzed using frequency charts.

Results

Demographics (N=50)	
Age (years)	
Mean (SD)	24.83 (1.91)
Gender (%)	
Male	20%
Female	78%
Prefer not to answer	2%
Race (%)	
Caucasian	70%
Asian	14%
Hispanic	4%
Other	6%
Prefer not to answer	6%

Table 1. Participant demographic information

Correlational relationships between PTG, burnout, and motivation						
	PTG	RO	NP	PS	AL	BO
IM	0.35*	-0.01	0.37**	0.27	0.20	-0.23
EM	-0.01	-0.31*	0.06	-0.10	-0.06	0.10
AM	-0.36*	-0.33	-0.09	-0.55**	-0.50**	0.71**
BO	-0.32*	-0.27	-0.23	-0.52**	-0.42**	

Table 2. Relationships between PTG, burnout, and motivation. RO=relationships to others, NP=new possibilities, PS=personal strength, AL=appreciate life, BO=burnout, IM=intrinsic motivation, EM=extrinsic motivation, AM=amotivation. (*)= $p < 0.05$ and (**)= $p < 0.01$

Interview Responses to Questions About Inspiration to Become a Physician (n=5)		
	Factors Influencing Career in Medicine	Participants Identifying the Factor as Most Important
Helping Others	80%	20%
Traumatic Event (Non-death)	40%	0%
Death/Illness in Family or Self	60%	60%
Scientific Interest	80%	20%

Table 3. Participant Interview Responses

All 5 interview participants believed their event was **protective** against burnout.

One participant on burnout in relation to their event: "Takes a lot more for me to be burnt out, because I know where life could be and I compare it to what I'm doing now"

Conclusions

-There exists a subset of medical students that utilize prior traumatic events as a motivating factor for becoming a physician. Students with this motivation could be better equipped to experience PTG and combat burnout.

-This suggests we should begin to reshape our view of trauma away from a solely destructive force to one through which motivation and protective factors can be derived.

-The study is limited by the small sample size.

-Further studies should be utilized to reproduce the data on a larger scale and design intervention strategies to cultivate PTG in medical students.

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