**Global Grassroots**
CONSCIOUS SOCIAL CHANGE FOR WOMEN

# SPOTLIGHT ON:
# WELLBEING & RESILIENCE

A Preliminary Review of the Scientific and Scholarly Literature on Personal Transformation and its Relationship to Social Change

**March 2021 | Gretchen Ki Steidle, Rachel Bellinger, Porter Nenon, Susan Patrice**

# INTRODUCTION

Global Grassroots is an international non-governmental organization (NGO), founded in 2004, which operates a mindfulness-based leadership program and social venture incubator for women survivors of war in East Africa. Over the last 15 years, we have invested deeply in the personal growth, inner leadership, wellbeing, hard skills, and the ideas of our change agents. We have witnessed their personal transformation as they have advanced their own solutions for the betterment of their community. We embarked upon this literature review to help us understand the link between personal transformation and social impact. The key question we were eager to answer through this review was: in what ways does the cultivation of human qualities such as mindfulness, agency, wellbeing, social intelligence, belonging or compassion contribute to a prosocial orientation and positively influence the advancement of positive social change?

To answer this question, we need to understand how various domains of personal transformation are defined, what happens within individuals and community when it takes place, how it transforms the people who experience it, and what outcomes result that may be relevant. Over the course of six months, Global Grassroots conducted a review of scientific and scholarly research on the topic of personal transformation as it relates to societal transformation. For the purposes of this paper, we define:

**personal transformation** as the process and experience of undergoing positive inner change towards personal growth and self-realization. Personal transformation can take place as the result of intentional effort over time, as well as a significant life changing experience that shifts our beliefs about ourselves and our relationship with the world.

**social change or social transformation** as a significant and positive shift in the functioning and wellbeing of society. This can result from changes in societal norms and values; changes in the behavior, beliefs and relations of the members of that society; the alleviation of a social ill; and/or through alterations of the systems, institutions, and structures making up that society.

We explored more than 370 key academic and scientific articles across the following five domains:

1. **Mindfulness:** "the capacity to pay attention in a particular way: on purpose, in the present moment, and non-judgmentally" (Kabat-Zinn, 1994, p. 4).

2. **Wellbeing and Resilience:** Wellbeing is "a state of being…where human needs are met, where one can act meaningfully to pursue one's goals, and where one enjoys a satisfactory quality of life" (ESRC Research Group on Wellbeing in Developing Countries, 2008, p. 4). Resilience is a positive adaptation despite adversity that leads to growth and greater wellbeing (Fleming & Ledogar, 2008; Luthar et al., 2000; Richardson, 2002).

3. **Social and Emotional Intelligence:** Emotional intelligence is the ability to be aware of our own and others' feelings in the moment and use that information to inform one's action in relationship (Goleman, 1995a; Salovey & Mayer, 1990). Social intelligence is "the ability to more deeply understand people by perceiving or experiencing their life situations and, as a result, gain insight into structural inequalities and disparities" (Segal, 2011, p. 266).

4. **Empowerment and Agency:** Empowerment is the ability to choose, including the existence of options and a capacity to make purposeful choices in a changing context where little power once existed (Alsop & Heinsohn, 2005; Kabeer 1999; Samman & Santos, 2003; Sidle, 2019).

5. **Community and Belonging:** A sense of community includes a feeling of belonging, a sense of mattering to the group, a feeling that needs will be met by shared resources, and having a shared emotional connection (McMillan & Chavis, 1986).

It has been our empirical observation, as practitioners in the field of personal transformation and social change, and our theory from wide-reaching conversations in the

social change sector that personal transformation is important for and takes place as an integral part of most long-term, sustainable, positive social change. But, it is not easy to measure these intangible experiences themselves, and there is little consensus on how to define the nature of personal transformation or the metrics with which to assess it. As such, there was a need to conduct a systematic review of the literature to help explain what is known about the process and experience of inner change and how it might be relevant to social change.

We explored a range of literature, including clinical studies, meta-analyses, literature reviews, analyses of scholarly discourse, reviews of measurement tools, proposed operational definitions and mechanisms, and working papers from practitioners. Our criteria included those studies that provided insight and critique on the definition, measures, mechanisms, outcomes, and potential evidence of the social impact of personal transformation.

We chose these five domains because they are the areas of personal transformation we have witnessed most on an ongoing basis and because there already exists a body of clinical work trying to understand the mechanisms and outcomes of each of them. We have undertaken this study at this time because there is a growth of interest in expanding from an exclusive focus on the external and concrete measures of social progress to including the contribution of more intangible, personal shifts towards long-term social change. Our contemporaries in the social justice and international development arena know that something is transpiring among the individuals and communities with whom they work. They believe that the internal condition of people matter, that relationships between them drive connection and community, and that their beliefs and

> **What is known about the process and experience of inner change and how it might be relevant to social change?**



Wellbeing is a state of being where human needs are met, where one can act meaningfully to pursue one;s goals, and where one enjoys a satisfactory quality of life.

values shape how institutions serve or disadvantage others - and change. Our approach and intention with this literature review, then, was to understand within each of these themes: the consensus definition of each concept; the documented mechanisms of such transformation; potential outcomes; measurement tools for and concerns with measuring each concept; future recommendations for research; and, the scientific and academic evidence for any relevance to social change.

Following are our general key findings and then the more specific review of literature within the domain of wellbeing and resilience.

## Key Findings

Some of our key, cross-cutting findings from exploring this relationship include:

- There is little consensus on the definition, metrics and measurement methods for most domains of personal transformation, aside from the assessment of post-traumatic stress.
- There are a wide range of tools that have been developed for evaluating components of personal transformation, which can help begin to assess whether such transformation has taken place.
- Each domain is multi-faceted, usually involves a component of self-determination, and is context dependent. Tools can measure a range of elements, including self-assessed perspectives, observed behavior, neural activity, or external, material conditions. Therefore, no single tool is likely to be adequate on its own without deeper qualitative evaluation.
- Personal transformation is influenced by and has a direct impact on the nature of the community or external environment in which a person's transformation occurs. As such, the relational field - connection to some form of community or a sense of belonging or relationship with another – is often critical, even for a process of individual, inner transformation.
- Personal transformation involves a fundamental change in the structure and functioning of the brain and physiology, resulting in a more positive orientation towards self and the surrounding world.
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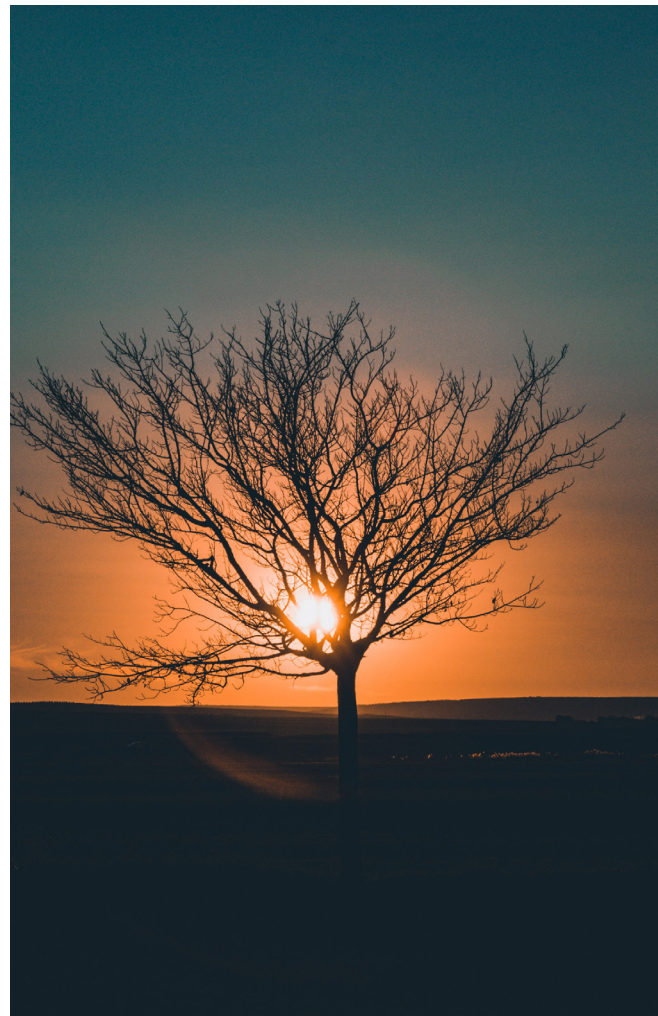
viewed have overlapping interrelationships and effects. Yet, the interpretation of data and outcomes are equally challenging. It is not always clear the directionality of impact between the personal, relational, and societal levels.

- The domains of mindfulness, wellbeing, social and emotional intelligence, empowerment and agency, and a sense of belonging and community help foster prosocial behavior (including helping, charitable altruism, concern, intrinsic motivation to act for the common good, and social communications.) This is influenced by the underlying capacities of self-awareness and self-regulation, compassionate understanding and connection with others, and developing a prosocial orientation for engagement. It is through this pathway that personal transformation is most likely to drive positive social change. Read more about this pathway in our conceptual map of how personal transformation results in the positive conditions for the advancement of social change.

- At this time though, there is little research documenting evidence that prosocial behavior itself translates into deep, systemic social transformation. This is likely largely due to the fact that most of the clinical research is conducted short-term in clinical settings versus the actual, practical application of personal transformation by practitioners in the social impact field that would allow us to see longer-term structural or systemic change.

In the following review, we focus on one individual domain of personal transformation, exploring its (a) history, (b) definitions, (c) any relevant practices and outcomes, (d) mechanisms, (e) measurement tools and approaches, (f) challenges with measurement, (g) future recommendations for research, and (h) applications for social impact. In a complementary text we propose a conceptual model for how the domains of personal transformation interrelate and influence social change, attempting to draw together from the evidence presented, a theoretical, operational model for this relationship. We have also compiled a sample list of the most commonly used measurement tools and a list of key studies for each topic. Finally, we share a survey of what actual organizations are finding from integrating inner work and personal transformation into the ways in which they deliver their social change programming. You may download this spotlight study here or access the full literature review here.

## Limitations

There are limits to our exploration that we wish to acknowledge. Most of the clinical and scholarly study of these concepts that we were able to access through our search of known databases were predominately conducted by Western researchers in mostly clinical settings. More diverse studies, tools, and perspectives from the Global South and other less represented groups are needed for a comprehensive picture. Additionally, we would have liked to find more studies that focus on non-clinical applications among practicing organizations in the social change sector. We also know that our exploration could not possibly be exhaustive, given the explosion of works that have populated the field in the last decade. We acknowledge the risk that by emphasizing the inner shifts through this research, it might be inferred that concrete, material progress may not be necessary - that if someone finds happiness and life satisfaction, that they no longer need a pathway out of poverty. To the contrary, we believe that the most significant pathway towards long-term sustainable change requires the personal transformation that enables complex change on a deeper level. Our purpose through this initial work is to move the dialogue forward by assessing what is known and what more needs to be explored to understand and measure the relationship between personal transformation and social change.

## Gratitude

# Spotlight on: Wellbeing & Resilience

## History of Wellbeing and Resilience

Wellbeing is a concept that integrates a broad range of holistic measures of individual and societal health under a single umbrella (Gibas et al., 2015). The origins date back to 1948 when the World Health Organization expanded its definition of health to include "physical, mental, and social wellbeing." (Gibas et al., 2015). In the mid-1960s, Harvard Business School professor Raymond Bauer and colleagues began to establish methods to measure and quantify indicators of social wellbeing, which helped broaden a sense of social progress beyond conventional economic measures, such as Gross Domestic Product (GDP) (Gibas et al., 2015). In 1972, Bhutan's young King Jigme Wangchuk coined the term "Gross National Happiness" coinciding with Richard Easterlin's research revealing material wealth did not drive happiness (Gibas et al., 2015). It became increasingly understood that wellbeing involved both objective measures of material things like income and education levels, and subjective measures of individuals' perceptions of their own wellbeing. In the 1980s, Amartya Sen's Capability Approach took wellbeing one step further by considering not just the level of resources available to support wellbeing, but also the degree to which people had the capacity to take advantage of those resources to improve their wellbeing (Gibas et al., 2015). This catalyzed a new person-centered approach and led to the United Nation's Development Programme's Human Development Reports and, later, Human Development Index that endeavored to aggregate the qualities of wellbeing that extended beyond economics (Gibas et al., 2015). In 2008, as the global financial and real estate crisis ensued, Nicolas Sarkozy of France established the Commission on the Measurement of Economic Progress, asking Nobel Prize winners, Joseph Stiglitz and Amartya Sen, among others on the panel, to reevaluate world economic indicators like GDP that seemed to be at a disconnect from people's daily reality (Goodman, 2009). Stiglitz and Sen criticized traditional markers of economic progress as inadequate for measuring social progress, instead putting wellbeing front and center as a critical assessment tool for global policy (Gibas et al., 2015; Goodman, 2009). The debate around wellbeing and its intersection with national and international development has since continued to move from an externally-defined and pathologizing focus on the social ills of the most disadvantaged, which fostered stigma, to a more inclusive approach enabling greater self-determination and collaboration (White, 2010).

Resilience research going back 50 years has long explored the concept from the perspective of the individual, beginning with the psychological study of children, especially those living in high-risk circumstances (Fleming & Ledogar, 2008; Richardson, 2002). Emily Werner is credited with the seminal research that catalyzed the field through her study of children in Hawaii and the qualities that enabled their resilience (Luthar et al., 2000). The emergence of resilience theory involved shifting from a model of identifying risk factors that lead to psychological and behavioral problems to a model that identified the internal strengths for coping with and overcoming adversity (Richardson, 2002). The research gradually moved beyond studying just the internal resilient qualities of individuals to understanding the risk and protective factors of influence within the family, community, culture and external environment too (Fleming & Ledogar, 2008). In the 80s, resilience theorists began proposing resilience as a process of coping, not a trait. Increasingly, researchers recognized that protective factors are not the sole determinant of resilience, as they do not always result in positive, adaptive outcomes in all circumstances for all people. Instead, resilience is a developmental process whereby new capacities and vulnerabilities emerge over time with changing experiences (Luthar et al., 2000). Richardson (2002) describes a third wave of resilience research that has focused on the inner motivational force for self-actualization that drives the capacity and process of resilience. In addition, the literature has increasingly turned towards measuring the resilience of whole communities themselves in addition to the individuals and influencing factors that make up such communities. Resilience is most often studied among people living with high-risk status, managing ongoing toxic stress, and recovering from trauma (Fleming & Ledogar, 2008). Also relevant to this exploration is Polyvagal Theory, proposed by Stephen Porges in the early 2000s, which describes the linkages between the stress response system and other neural networks that support prosocial behavior, health, and resilience (Sullivan et al., 2018).

## Definitions of Wellbeing and Resilience

**Wellbeing**
Wellbeing, like mindfulness, is difficult to define and is built upon a broad range of contexts and differing objective and subjective indicators, where there is currently no consensus. Or perhaps where there is consensus is that wellbeing is multifaceted (Decancq & Lugo, 2013). Certain objective indicators like physical health, nutrition, education, or basic economics are easy to assess and standardize, but may not give an accurate description of an individual's lived experience or life satisfaction, which is entirely dependent upon one's context and perception of that context (Gibas et al., 2015, Linton et. al., 2015). As such, wellbeing is naturally a person-centered concept, which requires one's own subjective take on how well one feels they are experiencing a certain quality of life, according to one's own priorities (White, 2010). Such holistic and subjective definitions are more able to account for the complexity of circumstances facing people and communities, including tangible and intangible indicators such as household distribution, power and status, human rights, loving relationships, and support networks (Camfield et al, 2008).

Also important may be the distinction between hedonic and eudaimonic definitions of wellbeing: Hedonic measures include pleasure and happiness, the presence of positive feelings, absence of negative feelings and overall subjective satisfaction with life (Cooke et. al, 2016). The eudaimonic model involves psychological wellbeing defined by realizing one's purpose, fulfilling one's potential, having a sense of autonomy and competence, having positive relations with others, self-acceptance, and operating at optimal levels (Cooke et. al, 2016).

Definitions of wellbeing invite debate over which combination of components should be included, and more recently there has been a push to develop indexes to aggregate these many components (Gibas et al., 2015). Measures like the Human Development Index, Gallup-Healthways Wellbeing Index, Social Progress Index, OECD Better Life Index, World Values Survey, and the Sustainable Development Goals attempt to provide a more comprehensive perspective on what enables individual and social wellbeing (Camfield

et.al, 2008; Gibas et al., 2015; White & Jha, 2014).

Following are a few more of the more comprehensive definitions:

"Wellbeing is a state of being with others, where human needs are met, where one can act meaningfully to pursue one's goals, and where one enjoys a satisfactory quality of life." (ESRC Research Group on Wellbeing in Developing Countries, 2008, p. 4). This definition recognizes that wellbeing has not only an objective and subjective dimension, but also a social or relational dimension. It is both a state and a process.

In resilience literature, individual wellbeing is considered to involve four characteristics: (1) being free from psychological illness, (2) healthy patterns of behavior, (3) adequate functioning in family and society, and (4) a perceived high quality of life (Norris et al., 2007).

According to the New Economic Foundation's (UK) Measuring Wellbeing: A Guide for Practitioners, "Well-being can be understood as how people feel and how they function, both on a personal and a social level, and how they evaluate their lives as a whole" (Michaelson et al., 2012, p 6). Michaelson et al. (2012) suggest that dimensions of wellbeing that matter most to people include:
- Emotional wellbeing: The overall balance between the frequency of experiencing positive and negative emotions.
- Satisfying life: Having a positive evaluation of your life overall.
- Vitality: Having energy, feeling well-rested and healthy, and being physically active.
- Resilience and self-esteem: A measure of individuals' psychological resources. It comprises the subcomponents:
  - Self-esteem – Feeling good about yourself.
  - Optimism – Feeling optimistic about your future.
  - Resilience – Being able to deal with life's difficulties.
- Positive functioning: This concept of "doing well" includes four subcomponents:
  - Autonomy – Feeling free to do what you want and having the time to do it.
  - Competence – Feeling accomplishment with the capacity to make use of your abilities.

- o Engagement – Feeling absorbed in what you are doing with opportunities to learn.
- o Meaning and purpose – Feeling that what you do in life is valuable, worthwhile, and valued by others.

The Wellbeing in Developing Countries (WeD) initiative at the University of Bath, UK defines wellbeing as involving three dimensions, with objective and subjective indicators for each (White, 2010):

Material:
- Objective: assets, income, consumption, livelihoods, wealth
- Subjective: satisfaction with income and wealth, and perceptions on standards of living compared with others and the past

Social:
- Objective: social, political and cultural identities; violence, conflict and security; relationship with and access to public amenities (law, politics, justice, welfare); networks of support and obligation; environmental resources
- Subjective: perceptions of safety, respect and discrimination; satisfaction with access to amenities; assessment of treatment and support; perceptions of environmental quality

Human:
- Objective: household structure and composition; human health; education; skills; disabilities and capabilities; relationships
- Subjective: satisfaction with capabilities; education; skills; health; self-concept; personality; trust; confidence; ideologies and beliefs

Positive Psychology's definition of wellbeing, referred to as flourishing, is contained in a framework known by the acronym PERMA (Kern et al., 2015):
- Positive Emotion: hedonic feelings of happiness (e.g. feeling joyful, content, and cheerful)
- Engagement: psychological connection to activities or organizations (e.g. feeling absorbed, interested, and engaged in life)
- Relationships: feeling socially integrated, cared about and supported by others, and satisfied with one's social connections
- Meaning: believing that one's life is valuable and feeling connected to something greater than oneself
- Accomplishment: making progress toward goals, feeling capable to do daily activities, and having a sense of achievement

The Wellbeing Project defines personal wellbeing as including an experience of wholeness and interconnectedness, and that it is action-oriented and a continuous journey (Severns and Murphy Johnson, 2020).

**Resilience and Trauma-Healing**

Resilience is often seen as a component of or contributing to wellbeing and can be defined as positive adaptation despite adversity (Fleming & Ledogar, 2008). In the wellbeing literature, Michaelson et al. (2012) suggest that resilience is one of three components of psychological resources on which wellbeing depends, which ensure individuals are capable of handling the difficulties they encounter.

Another definition is "a dynamic process encompassing positive adaptation within the context of significant adversity" (Luthar et al, 2000, pg. 543). This suggests that resilience is not necessarily a state of being, but a process, and requires the existence of adversity or very substantive risk, against which someone adapts, leading to greater wellbeing (Fleming & Ledogar, 2008; Luthar et al., 2000; Richardson, 2002). Resilience theory sees this process as involving a level of growth and adaptation, not just bouncing back to homeostasis (Richardson, 2002).

Like many of the other personal transformation processes covered in this review, there is little consensus on a definition (Luthar et al., 2000). This includes the definitions for the adversity conditions themselves against which resilience is assessed, the risk and protective factors affecting resilience, and the adaptation process (resilience itself) that takes place after adversity (Luthar et al.,2000).

Protective factors that support resilience come from within various domains: the individual level, family, community, environment and culture. These are wide ranging within each domain, including (Fleming & Ledogar, 2008; Luthar, et al., 2000; Richardson, 2002):
- Individual: temperament, attachment, self-efficacy, sense of self, hopefulness, good problem-solving skills, self-discipline, critical thinking skills, positive values, social competencies, and grit
- Family: parental encouragement, high expectations, marital support, material resources, and

cohesion of the family
- Community: supportive peers and teachers, academic success, and supportive community
- Cultural: traditional activities, spirituality, language, and healing

In the psychological literature, resilience involves "resistance to psychosocial risk experiences", which can present on a continuum of less optimum to optimum behaviors (Fleming & Ledogar, 2008, p. 2). In the field of positive psychology, subjective wellbeing is actually one of the optimal qualities for resilience (Richardson, 2002). Others include happiness, optimism, faith, self-determination, wisdom, excellence, morality, gratitude, self-control, forgiveness, humility, and creativity (Richardson, 2002). The field of psychoneuroimmunology has found that people who are optimistic, hopeful, and have some sort of passion or purpose, even have higher immune system functioning (Richardson, 2002). According to resilience theorist Michael Rutter, resilience is possible when these factors catalyze the process of building a positive self-image, breaking a negative cycle and opening up new opportunities, and reducing the effect of risk factors (Fleming & Ledogar, 2008).

The "challenge model" of resilience denotes some form of personal growth. Glenn Richardson's (2002) describes this as being able to manage a moderate level of risk (not too much to be overwhelmed, but enough to be challenged), resulting in a positive outcome of resilient reintegration - a level of growth or insight in self-understanding, strength, and coping qualities (Fleming & Ledogar, 2008; Richardson, 2002). This is driven by "the motivational force within everyone that drives them to pursue wisdom, self-actualization and altruism and to be in harmony with a spiritual source of strength" (Richardson, 2002, p 309). Resilience-based therapies, then, work to move through the protective layers of the ego to help an individual reconnect with their innate human spirit (i.e., resilience) (Richardson, 2002). According to Richardson (2002), resilience theory assumes each individual has innate needs for self-worth, self-esteem, freedom, morality, purpose, and to give back, and so the process of reintegrating with resilience includes reframing their experience of adversity to find a positive opportunity, seek meaning and purpose in their recovery, and reconnect with their deeper source of strength.

Resilience can be considered on an individual or col-

lective level, which can include the process of adapting to chronic or toxic stress, rebuilding after natural or human disaster, protecting from burn-out or empathetic fatigue, or the ability to recover from a traumatic event. A definition of community resilience, provided by Healy (2006) is "the capacity of a distinct community or cultural system to absorb disturbance and reorganize while undergoing change so as to regain key elements of structure and identity that preserve its distinctness" (Fleming & Ledogar, 2008, p. 3).

One significant form of adversity is trauma. Individuals who experience or witness traumatic events, especially war, genocide, torture, and sexual violence, very often undergo deep psychological stress, otherwise known in Western psychology as complex post-traumatic stress disorder (PTSD). Trauma and PTSD are often used interchangeably to represent the impact of such stressors. Unlike other realms of adversity, trauma and the resulting PTSD is relatively clear in definition. Usually preceded by exposure to a significant, traumatic stressor that involved a response of intense fear or panic, helplessness or horror, PTSD is a psychiatric condition with very specific symptoms (Vermetten & Bremner, 2002). According to the Diagnostic Statistical Manual IV (DSM), in the definition of PTSD:

> The person has been exposed to a traumatic event in which both of the following were present: [a]the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others. [b] the person's response involved intense fear, helplessness, or horror… The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. (American Psychiatric Association, 2002, p. 25)

This can include an entire spectrum of symptoms. The DSM-V, divides PTSD symptoms into four categories (APA 2013):

1. Intrusion Symptoms or Reexperiencing: These include symptoms that intrude upon your regular daily life, often unexpectedly, such as flashbacks; repeated, disturbing dreams or nightmares of a stressful experience; triggers;

repeated, disturbing memories, thoughts or images of the stressful experience

2. Avoidance Behavior: These are ways individuals avoid people, places and things through intentional or unintentional behavior like: dissociation; loss of interest in activities that once brought joy; difficulty remembering stressful experiences; feeling distant or cut-off from others; feeling emotionally numb

3. Symptoms of Increased and Ongoing Arousal or Reactivity: These are experiences where the stress response system engages, is overworked, and causes difficulty calming down, such as an extreme emotional response when reminded of a stressful experience; physical response when reminded of a stressful experience (heart pounding, trouble breathing, sweating); angry outbursts; being easily startled, hyper-arousal; insomnia; hyper-vigilance

4. Negative Mood and Thoughts: These are experiences like ruminating over negative events; depression; difficulty concentrating

Over time, PTSD is associated with an increased risk of several other conditions including panic disorder, alcoholism and other addictions, chronic or severe depression, generalized anxiety disorder, and social phobias (Vermetten & Bremner, 2002).

## Mechanisms of Trauma and Resilience

**Trauma and our Stress Response**
Our autonomic nervous system is made up of two branches. One is the sympathetic nervous system or stress response system that activates to protect us from danger (what we know as our fight or flight response). When activated, it floods our systems with adrenaline, cortisol, and other stress hormones to ensure we can move quickly with strength, be hyper alert and respond with energy to avoid danger or harm or fight against a threat. The other, the parasympathetic branch of the autonomic nervous system is what slows us down and helps us relax, feel safe, restore ourselves, and recharge our energy. This also supports growth and health. Most of the neural pathways for the parasympathetic nervous system travel through the vagus nerve between the brain stem and several organs, like the heart, lungs, and digestive system, involving bidirectional communication.

Normally, when we feel safe, our body regulates between the sympathetic and parasympathetic branches as necessary – we get startled by a loud noise, which activates the stress response system, then we realize we are not in danger and we relax again. The autonomic nervous system then acts like a pendulum, with the sympathetic nervous system activated as needed in response to external stimuli followed by an extinction of the stress response and a corresponding parasympathetic (relaxation) response to return to homeostasis after the threat has passed and safety is perceived.

Functionally, safety is a state determined by the nervous system itself - which can be completely independent of and divergent from any actual threat - and which is assessed through sensory input from the environment without the need for cognitive awareness - a process called neuroception (Porges & Carter, in press). In fact, in normal functioning, the stress response system usually stays partially activated for our protection, existing in a state of alert or readiness, resulting in a slightly elevated heart-rate, higher frequency breathing, a level of muscular tension, and anxiety than when in a relaxed state (Elliott & Edmonson, 2006).

When we experience a traumatic event or are exposed to repeated stressors, the stress response system turns on automatically to help ensure our survival. But it is also possible that it can get stuck on, become over-stimulated and dysregulated, or completely depleted. Overtime, this system burns a lot of energy, and when it stays on for too long, it leads to exhaustion and illness, and results in the symptoms of PTSD discussed earlier, which often emerge shortly after exposure (Vermetten & Bremner, 2002).

The mechanisms underlying PTSD involve the stress response system conditioning itself around fear and stress, and failing to move through to extinction of its response (Vermetten & Bremner, 2002). When people are reminded of their traumatic experience, the parts of the brain responsible for intense emotions are activated (including the right medial orbitofrontal cortex, insula, amygdala, anterior temporal pole), and the neural networks responsible for regulating emotions and communicating experience, thoughts, and feelings (including the left anterior PFC specifically Broca's area) are deactivated (Van der Kolk, 2006).

Any prolonged experience of a threat with a maladaptive response may result in longer-term disorders involving imbalances of the physical state, emotions, and behavior (Sullivan et al., 2018). Traumatic experiences are often associated with severe guilt, disgust and shame, self-blaming, and frequent rumination, which exacerbate the impact of the stress (Chopko & Schwartz, 2013; Van der Kolk, 2006). Individuals can find such emotions overwhelming and have difficulty managing their inner sensations and perceptions, understanding what these experiences mean, and using them effectively as guides for action - a condition called "alexithymia" (Van der Kolk, 2006). This results in challenges in understanding and caring for their own needs and appraising the emotions of others. When in such vulnerable states, the social behavior of others can be misinterpreted as aggressive if time is not taken to calm sympathetic reactivity to a perceived threat, such as by slowing the rate of breath, and allow higher cognitive functions to overtake the defensive orientation (Porges & Carter, in press). Individuals instead lash out or collapse in response to stress (Van der Kolk, 2006). Further, traumatized individuals often lose the effective use of the stress response system, which results in responding to new, perceived danger with paralysis and immobilization (Van der Kolk, 2006). Individuals have resulting issues with working memory, sustained attention and focused concentration, which effectively means they have a hard time being fully present (Van der Kolk, 2006). Bessel van der Kolk (2006) attributes this most likely to dysfunction in the front-subcortical neural networks and corticothalamic integration.

It is also important to give special mention to the impact of adversity and trauma on youth, which is even more complex. First, studies have shown that early life trauma impacts the neurochemical systems in the brain that are responsible for the stress response, causing greater likelihood of developing anxiety and emotional conditions as adults (Vermetten & Bremner, 2002). Second, children are affected by both by the impact of trauma on parent's availability to adequately parent their children and possibly also through epigenetic transmissions from one generation to the next, making them more susceptible to PTSD (Fenton, 2018; Portney, 2003). Empirical evidence reveals that there is a transgenerational inheritance of the impact of PTSD on genes from the person who experienced the trauma to their offspring, such as hormone levels, which result in higher rates of PTSD in children as well as children

being more susceptible to suffering similar symptoms in response to stressors (Fenton, 2018). This is also influenced by the context in which children are raised, including the breakdown of collective wellbeing, such as community trust, social norms and values (Fenton, 2018). It can be much more difficult to treat children affected by trauma through epigenetics, parenting, and environmental context, when there is no underlying traumatic event for them to reference (Fenton, 2018).

Often the impact of a traumatic event goes beyond the individual and next generation to affect the entire community as well. When whole communities are wounded by war and natural disaster, the trauma and resulting displacement dismantles collective structures such as social networks, families, political systems, economies, health services, and trust (Hostland, 2012; Steidle, 2019). And trauma can extend beyond those affected by the traumatic event to front-line first responders, including humanitarian aid workers, rescue personnel, and even journalists (The Antares Foundation, 2012). Displacement itself can cause trauma through a loss of a sense of place – "root shock" - and emotional support system, as well as the extreme conditions individuals endure in seeking safety (Fullilove, 1996; Steidle, 2019). Often, post-migration conditions, from housing and financial security to perceived lack of safety and discrimination, can contribute to even greater mental health issues, such as PTSD, depression and anxiety (Coffey et al, 2010; Hamid and Musa, 2010; Li et al., 2016; Steel et al, 2006). Following conflict and disaster, mental health systems are either completely destroyed or minimally functioning and accessible, and individuals face large obstacles to treatment including stigma, affordability, accessibility, child care, time, and difficulty traveling (Rugema et al., 2015; Steidle, 2019). Collective wellbeing depends on objective, material elements such as social justice, welfare, law enforcement, leadership, and cultural identities, as well as the subjective perception of safety, trust, respect, satisfaction with treatment, and support (White, 2010).

### Resilience
The mechanisms of the process of resilience first involve the disruption to homeostasis that creates adversity. Reintegration begins as people explore how to adapt, and experience a form of growth or insight from this experience, which strengthens the resilient qualities that enabled the recovery. This process may take minutes or may take place over years (Richardson, 2002).

Without this resilient reintegration, people may continue to experience adversity because they have not developed the characteristics that allow for ongoing growth and resilience the next time (Richardson, 2002). Others may turn to maladaptive behavior, such as destruction, addiction and other negative coping mechanisms.

Polyvagal theory is a field of research related to the relationship between the autonomic nervous system, emotion and behavior, and the role of the vagus nerve (10th cranial nerve), a part of the parasympathetic nervous system (PNS), in self-regulation, resilience, and prosocial communications (Porges and Carter, in press; Sullivan et al., 2018). As mentioned previously, the vagus acts as a bidirectional pathway between the brain stem and the visceral organs like the gut, which pick up on external stimuli. The vagus serves an essential role in the body's capacity to regulate our response to perceived safety or danger, through both informing the brain and regulating specific organs. In times of safety, the PNS operates synergistically with the SNS as an inhibitory "vagal break" to support health, rest, and restoration.

According to polyvagal theory, there are three primary neural platforms involved in the detection of and response to safety or threat, which also influence the conditions for recovery and resilience. These circuits operate in an evolutionary-determined hierarchy. First is the social communications system (listening, facial expressions), second is the defensive system associated with mobilization (fight/flight), and third is the defensive system associated with immobilization (freeze) (Porges and Carter, in press).

When the environment is perceived to be safe, there is an increase in the vagus influence on the regulation of visceral organs for homeostasis, growth and restoration, including a dampening of the stress response system. This includes the "social engagement system", managed by the ventral vagal complex (VVC), which is responsible for regulating facial expressions and communications. The VCC, in connection with breathing and heart rate, allows more spontaneous prosocial and adaptive social interactions in response to challenges (Porges, 2009; Sullivan et al., 2018). For example, the neural pathways activated in making eye contact (raising the eyelids via the facial nerve) are also responsible for helping us listen to a human voice against background noise (by tensing the stapedius muscle in the middle ear), which then

provides additional input on safety (Porges & Carter, in press). When the VVC is active and a person feels safe, a person is in the optimal state for experiencing feelings of connectedness, love, empathy, compassion, and altruism (Gerbarg et al., 2019; Sullivan et al., 2018).

When the VVC has failed to address a threat, the inhibitory vagal break is turned off, enabling the sympathetic nervous system (fight/flight) to be activated. When the SNS is activated, there is a significant mobilization of physiological changes to allow for an immediate protective response to danger to ensure survival, such as increases in heart and breathing rate, redirection of blood to central organs, release of hormones for immediate action, and emotions are oriented around fear and anger (Sullivan et al., 2018). There are also blended states, such as in play, dance, and sexual intimacy, where the VVC remains fully functioning along with higher SNS activation (Porges & Carter, in press; Sullivan et al., 2018).

Finally, the dorsal vagal complex (DVC), connected to organs below the diaphragm, is involved in the most primitive response to danger. In response to very severe terror, the PNS is recruited as a defense system, resulting in activation of the "freeze" response experienced as an almost complete shut-down of the body to the minimum functioning necessary for survival, which may include loss of consciousness and feigning death (Sullivan et al., 2018).

Polyvagal theory asserts that the range of emotions and behaviors accessible to a person depend on their physiological state dictated by these neural platforms. This suggests that sympathovagal balance – a self-regulated balance between the SNS and PNS - may be related to balance between bodily sensations, emotions, mental activity and our capacity for greater vagal control. Higher vagal control hinges on our ability to interpret and respond accurately to sensory information delivered, in part, by the vagus nerve (Sullivan et al., 2018). High vagal control is correlated with more adaptive neurological processes such as attention and emotion regulation, greater behavioral flexibility to challenges, lower anxiety, and improved interoception (Porges & Carter, in press; Sullivan et al., 2018). Interoception, a capacity also fostered through mindfulness practice, is the sense of what is happening in your body. Interoception is also seen as an integrative function between "top-down" higher cognitive functioning like attention regulation, and "bottom-up" processes

connected to breathing and movement, and can help foster a return to homeostasis (Sullivan et al., 2018).

To switch from the defensive systems to the social engagement system, the body must first assess risk/safety and then inhibit the more evolutionary primitive systems that are activated for defense (Porges, 2009). However, the assessment of risk is a continual process that does not require conscious awareness. People who have experienced a traumatic incident may continue to discern risk even when it does not exist. These states of stress activation then affect one's ability to detect positive social cues. In turn, visceral cues can also impact our perception of our external environment (Porges, 2009). Fortunately, this bidirectional pathway can be engaged actively or passively to support a return to homeostasis within the body, which is key to our healing and resilience. (Gerbarg et al., 2019; Porges & Carter, in press).

Resilience is critical before any other form of wellbeing can manifest adequately. If one's psychophysiological functioning is not optimal due to trauma, it is extremely difficult for the entire system to be open to change when it remains locked in a defensive state (Gerbarg et al., 2019).

**Trauma-Healing**
Effective interventions for trauma-healing require a reprogramming of the stress response system, enabling individuals to find a sense of physical control and self-protection capacity to feel safe (Van der Kolk, 2006). The process involves helping individuals to:
1. gradually increase their capacity to focus on their internal experience, and to realize these experiences are constantly changing,
2. recognize, through careful non-traumatic stimuli, that it is safe to have feelings and sensations,
3. accurately assess threat or safety,
4. activate the corresponding neural platform for protection or for calm and resilience, and then
5. integrate the aspects of the mind, heart and body related to their experience of trauma,
 so they can begin to find relief from the overwhelming emotional experience of their traumatic past (Porges & Carter, in press; Van der Kolk, 2006).

Evidence-based psychotherapy interventions include cognitive behavioral therapy, prolonged exposure, and cognitive processing therapy (Watkins et al., 2018). Mindfulness is even being utilized now for treatment, though it is not yet widely recognized as a standard method. Van der Kolk (2006) suggests that mindfulness and other mind-body practices can help the individual to notice their internal experience with curiosity, identify sensations and emotions in safety, and learn how to articulate and understand their experience. As has been explored earlier, mindfulness promotes the capacity for meta-awareness, interoception, reappraisal, self-compassion, decreased rumination and anxiety, and experiencing less distress in response to discomfort, all of which can be supportive of the trauma-healing process. The benefit of mindfulness-based interventions is learning to be present with one's experience in a way that is healing versus triggering or retraumatizing (Magyari, 2016; Van der Kolk, 2006). Survivors also may experience empowerment from knowing there are practices that they can proactively use to help regulate emotion and physical states (Van der Kolk, 2006). There are still challenges using mindfulness practices for trauma-healing, including the fact that long durations of silence and practices conducted with eyes closed can trigger the stress response system (Magyari, 2016). Yet there are also efforts to understand and train practitioners to avoid those harms (Treleaven, 2018). The facets developed through mindfulness practice of non-judgment and acceptance has been associated with a reduction in intrusion, avoidance and hyperarousal categories of PTSD symptoms, especially in working against overwhelming feelings of guilt and shame (Chopko & Schwartz, 2013).

Mind-body therapies that use somatic practices that foster interoception, along with mindfulness capacities of nonjudgment and non-reactivity, also work together to support the reappraisal of sensations as non-threatening for greater adaptive responses and improved self-regulation (Sullivan et al., 2018). In addition, we can learn to proactively regulate our ability to relax by consciously controlling one function also regulated unconsciously by the autonomic nervous system – our breath – which can be altered through breath practices, meditation, song, chants, playing wind instruments, and other intentional forms of breathing (Porges & Carter, in press). Breathing practices, especially those that involve a longer out-breath than in-breath, help stimulate the vagus nerves' influence over the heart, increasing high frequency heart rate variability, which supports emotional states of compassion, love, and safety (Gerbarg et al., 2019; Porges & Carter, in press). Mind-body practices, like yoga and tai chi, can essentially "exercise" these systems

proactively and preventatively for greater future adaptability and resilience (Brown et al., 2013; Porges & Carter, in press; Sullivan et al., 2018). This is because they involve simultaneous engagement of all the circuits of the social engagement system with attention to the body, breath, emotion, mental processes and insight (Porges & Carter, in press). This then stimulates the integration of top-down and bottom-up processes in healthy response to sensory input, resulting in a person becoming more proficient in actively regulating the autonomic nervous system (Porges & Carter, in print; Sullivan et al., 2018). Supporting this natural capacity for assessing risk or safety, mind-body practices that utilize melodic harmony in the frequency of a mother's lullaby can also override hypervigilance (Porges & Carter, in press). Others can support this process through social behaviors (e.g., calming voice, facial expressions) that signal safety, such as is used in cognitive-behavioral therapy and dialectical behavioral therapy. These treatments have optimal benefits during states of feeling safe, which makes it easier to downregulate the body's stress response system (Porges & Carter, in print). This can lead to outcomes of eudaimonic wellbeing, sense of connection, compassion, peace, self-regulation, and physical, emotional and behavioral health, again driving prosocial behavior and resilience (Gerbarg et al., 2019; Sullivan et al., 2018).

## Measuring Wellbeing and Resilience

### Wellbeing

Given the variation in the definition of wellbeing, it is no surprise that the tools for measuring wellbeing on a psychological, biological, economic, social, and spiritual level are just as varied. In fact, there have been 99 tools alone created since the 1960s (Linton et al., 2016). These tools have intended to measure positive functioning and wellbeing over measures of negative ills, and have been applied in a range of clinical, research, and public policy purposes at an individual, group, and community level (Cooke et al., 2016).

In addition to the material/objective and subjective measures, wellbeing is also dependent on priorities for relational needs like love, support, equality, and security (Summer et al., 2009). Satisfaction towards meeting personal goals on these varied levels is dependent upon not only an individual sense of agency, but also the relational context in which individuals exist, and the capacity to make use of available resources to navigate

that context. Therefore, wellbeing is both a self-determined concept and interconnected with and influenced by cultural values, community, and the particular social context (Summer et al., 2009). A few tools include:

- Flourishing Scale (Diener et al., 2010). Designed to measure eudaimonic wellbeing including social-psychological prosperity defined by positive social relationships, purposeful and meaningful life, engagement and interest in one's activities, and feeling competent and capable in activities that are important to the person.
- Subjective Happiness Scale (Lyubomirsky & Lepper, 1999). Designed to measure hedonic wellbeing in terms of levels of happiness and comparison of level of happiness to others.
- Authentic Happiness Inventory (Zabihi, Ketabi, Tavakoli & Ghadiri, 2014). A composite index designed to measure pleasure, engagement, meaning in life, and interpersonal connectedness as elements of happiness.

### Resilience

Most measures of resilience seek to identify the risk factors and protective factors that an individual draws upon in their process of adapting to adversity, though these factors and their influence can vary widely. Sometimes this involves comparing people with differing levels of adversity and coping capacity, or exploring the impact of specific variables independently or in combination (Luthar, 2000). As two examples, the Zigler-Phillips Social Competence Index (Zigler & Glick, 1986) measures various interlinked areas of competency through composites (Luthar et al., 2000). The Community Assessment of Resilience Tool (CART, Pfefferbaum et al., 2006) assesses community resilience.

It is also possible to measure heart rate variability as an indicator of individual stress. High frequency heart rate variability is associated with parasympathetic activity, emotional calm, self-regulation, activation of the social engagement network, and prosocial behavior (Gerbarg et al., 2019). One study found that high vagally-mediated heart rate variability was supportive of people experiencing mutual understanding in relationships, which contributes to a prosocial orientation (Gerbarg et al., 2019).

### Trauma-Healing

Most measures of the healing of trauma involve testing for the occurrence of and decrease in 17 key symp-

toms of PTSD in a single individual, which represents an improvement in the self-regulation of the autonomic nervous system and a downregulation of sympathetic tone. Considered the gold-standard in assessing PTSD, the Clinician-Administered PTSD Scale (CAPS, Blake et al., 1995) is a 30-question, structured interview delivered by trained professionals that assesses 17 symptoms of PTSD and provides a severity score for current or long-term diagnosis (Brom et al., 2017). Also common is the 17-question PTSD Check List (PCL – 17), a measure for self-report symptoms of PTSD using a 5-part Likert scale. Scores range from 17-85, with measures of 50 or higher indicating PTSD (Descilo et al., 2010). Finally, there is the Posttraumatic Diagnostics Scale (PDS, Foa, Cashman, Jaycox & Perry, 1997) with a 49-item self-report questionnaire for adults with a score range of 0-51 for measuring the severity of 17 symptoms in the last month (Brom et al., 2017).

See Appendix for other tools for measuring wellbeing, resilience, PTSD and individual symptoms like depression.

## Challenges with Measuring Wellbeing and Resilience

**Wellbeing**
The excessive proliferation of tools and the multifaceted nature of wellbeing result in varied outputs that do not have consistent standardization allowing for broader-reaching comparisons. And there are challenges of using various methods without a common means of establishing validity (Camfield et al, 2008). This may have driven the development of multidimensional indexes of wellbeing, that allow an aggregated measure for comparison of all individuals within a particular society or context (Cooke et al., 2016).

Yet indices alone may not provide a complete picture. Though composite measures may give leaders and policy makers a snapshot of wellbeing across a wide range of indicators and population diversity, they may not effectively consider the challenges of people's differing abilities, desires to make use of available resources to improve their lives, and the structural inequities that create obstacles to such support (Gibas et al., 2015; White, 2010).

Amartya Sen's Capability Approach uses a social justice lens to consider the role that different circumstances and choices play in the status of an individual's wellbeing (Gibas et al., 2015). There is a difference in simply having resources available versus one's freedom of choice or other capacity to take advantage of those resources (Gibas et al., 2015). For example, the experience of someone choosing to smoke and the implications of that choice on their health is very different than the experience of someone forced to breathe air pollution in an area away from which they cannot afford to move. This is indicative of the link between agency, empowerment and wellbeing, which will be covered in more detail in our section on Empowerment and Agency. In a developing country context, the availability of resources needed for an individual to pursue their definition of wellbeing may also involve costly trade-offs between self and family, current or future priorities, political and social barriers, and tensions with the overarching development goals of larger players (Camfield et al., 2008). Newer subjective approaches, including participatory and qualitative methods, can help incorporate contextual influences and ensure a more holistic and comprehensive view of the personal realms that matter to people, like spirituality and relationships, which may contribute to wellbeing (Camfield et al., 2008; White, 2010).

Still, even in collecting subjective data, the ways wellbeing is measured and interpreted can be largely political. While qualitative measures are critical to be able to incorporate local understandings and contextual differences, these differences may also be vulnerable to manipulation and bias for specific purposes (Camfield et al., 2008). Using qualitative methods in developing countries can still be extractive and top-down, may lack credibility with certain local audiences, may suffer from a lack of supporting infrastructure for research, may involve quality issues, and may be costly and time consuming (Camfield et al, 2008). Finally, local audiences more accustom to quantitative statistics may be less trusting of subjective measures, resulting in credibility issues (Camfield et al., 2008). There may also be challenges in finding expertise locally to assist in the collection and interpretation of qualitative research data without framing insights in ways that result in a loss of meaning (Camfield et al., 2008).

Further, measures of subjective wellbeing can be used to idealize the "poor, but happy" simplicity of the disadvantaged, undercutting the legitimate need for ma-

terial benefits from government or aid programs in favor of policies aimed at just changing local perception of needs (White, 2010). While person-centered subjective measures allow for more holistic, individually-driven definitions of needs, desires, and perceptions, they may also limit the capacity for policy-makers to evaluate structural inequalities of social difference, like race, class, and gender (White, 2010). As such, there are concerns around who and how wellbeing is defined and applied, especially in circumstances where outsiders of greater privilege are dictating priorities for those of disadvantage. This can result in a dilution of concepts like quality of life to include only those factors most necessary for survival, while dismissing other qualities like human rights, love, and care, as "luxuries" for the impoverished (White, 2010).

### Resilience

Luthar et al. (2000) specifies a range of concerns with resilience research: It is difficult to identify any optimal set of qualities or circumstances that would cultivate resilience. Some people exhibit resilience based on some qualities while others do not. There are also questions about how to assess whether the experiences of adversity are similar between study participants, and, like other studies of personal transformation, subjective experiences vary widely. Without any standard approach to measuring, outcomes will vary even within similar groups depending upon the risk factors, protective factors and coping strategies considered. Researchers also still differ in their approach and terminology in considering resilience as either a trait or a process. This results in concerns that the concept of resilience may not be a valid construct in the first place due to is variability.

### Trauma-Healing

Many of the concerns with measuring trauma healing involve ensuring methods are culturally appropriate and take into account the cultural context in which trauma and trauma-healing is taking place. This includes understanding indigenous perspectives on mental health, methods and practices, stigma, accessibility issues, long-term support, language differences, religion, and how and by whom interventions are being funded and delivered (Hostland, 2012; Steidle, 2019). Many interventions are delivered and evaluated by foreign entities that may lack a complex understanding of the local context as well as trauma-informed methods of working with traumatized individuals. Further, the scientific nature of diagnosing PTSD may not incorporate the holistic experience of trauma, including the cultural, social, political, and spiritual (Hostland, 2012). Specifically in the context of conflict, measures of individual trauma cannot completely account for the impact of trauma collectively (Hostland, 2012). Collective trauma involves the shared experience of all members of community witnessing or experiencing trauma from violence, death and loss, displacement, abandonment, or betrayal (Hostland, 2012; Steidle, 2019).

There are also challenges with treating trauma. Those who are traumatized may present with a fear of intimacy resulting from betrayal, abandonment, and violence, especially if their trauma was experienced in an intimate relationship (Van der Kolk, 2006). This may pose challenges to the therapeutic process in their having to forge a relationship of trust and human contact while still fearing closeness in order to feel seen, heard and understood (Van der Kolk, 2006). Further, because the physical arousal patterns and sensations stemming from PTSD are outside the capacity of the executive functioning centers of the brain, the cognitive methods of psychotherapy can be ineffective in addressing the patterns of stress response system dysfunction (Van der Kolk, 2006). Also, interventions that involve pharmacology often treat some of the distressing behaviors, but not the underlying conditions that cause those behaviors (Van der Kolk, 2006).

## Future Recommendations for Research

It is essential for all assessments of personal transformation to include qualitative components as a complement to using any of the many quantitative measures, especially when the context in which the work is taking place is different than the environments in which the tools were developed and tested (Camfield et al., 2008; White & Jha, 2014). This allows practitioners to assess and ensure (not assume) local participant experience and understanding of wellbeing and the tools themselves (White & Jha, 2014). These efforts are most successful when conducted by trained researchers working in the local language after building a level of trust and rapport (Camfield et al., 2008). These efforts may take time and will be challenged by working through translators and attempting to protect against loss of meaning through interpreting data, but may still offer the most robust insights.

## Wellbeing

Researchers need to be aware of the components of wellbeing measured by various tools and indices, as many still heavily emphasize externally-determined, objective, economic indicators, which might be significantly misaligned with local priorities. Ensuring the broadest measures, while keeping locally-driven priorities front and center allows for measuring intended as well as unintended impacts according to local perspectives (Beban, 2012). It may not be possible to utilize universally-applied indicators and goals if they alienate the desires of local populations for their own form of happiness (ESRC Research Group on Wellbeing in Developing Countries, 2008). Researchers and program designers also need to be aware of the bias that might affect local responses when those with resources are managing data collection from those who may feel they need to compete for those resources. Ensuring local participation at the earliest stages and throughout the process of feasibility studies, program design, implementation and impact assessment is critical. When determining interventions both for internal organizational wellbeing and within target populations, concepts of wellbeing, drivers of wellbeing, and measures of wellbeing ideally should be aligned with the goals of program beneficiaries (Beban, 2012). Some recommend conducting periodic wellbeing audits to ensure policy is creating the actual impact it is designed to create (ESRC Research Group on Wellbeing in Developing Countries, 2008).

## Resilience

The biggest challenge with measures of resilience involve the lack of standardization in definition and in the choice of risk and protective factors. As such, it is important for researchers to look for recurring, cross-cutting themes even across diverse approaches, while also being explicit about what approaches and factors are being measured (Luthar et al., 2000). It is also important to look for consistent results at least within similar themes of factors to ensure some level of validity of the construct of resilience (Luthar et al., 2000). Research needs to invest more deeply in understanding how a particular variable affects resilience rather than just identifying the most impactful factors. Studies should present a clear theoretical framework that explores the interrelationship of factors and how they are affected by the particular adversity circumstances being studied.

It is critical for researchers to be clear about the termi-

nology describing the conceptualization of resilience as a trait or a process so as to not confuse the outcomes, as well as other terminology describing the risk or protective factors and how they affect resilience (Luthar et al., 2000). Studies should use both person-oriented and variable-oriented processes and study factors and their influence within specific domains (family, community) both short and long-term to ensure the most robust conclusions (Luthar et al., 2000). Finally, cross-discipline research can enable deeper understanding, and can contribute towards designing more effective interventions.

## Applications of Wellbeing and Resilience for Social Impact

**Wellbeing**

Self-reported feelings of wellbeing are of growing importance in several fields, including health, public policy, international development, and service professions. Because objective, external measures of wellbeing, such as household income or education level, only capture a part of what contributes to wellbeing, self-reported metrics are important to include in any assessment of wellbeing (Cooke et al., 2016). Local priorities and context are key in defining wellbeing goals for policy and development interventions, and may drive whether goals go beyond material outputs to accommodate intangible concepts too (Camfield et al., 2008; White, 2010). It is also important to note that concepts of wellbeing involve relatedness, including how people experience support and care or neglect and exploitation by social structures and subject to power relations, within the home and society (White, 2010). As such, wellbeing is a concept that invites a collective definition and process that takes place within relationships and community (White, 2010). At a policy level, this suggests that advancing wellbeing for the disadvantaged and excluded will also need to involve shifts in how they engage and relate to others on a structural level (White, 2010). See more on collective wellbeing in our section on Community and Belonging.

In the field of public policy, leaders are recognizing that integrating measures of wellbeing into policy evaluation allows for a broader set of indicators of people's needs and desires, the impact of policy decisions, and national progress towards a more positive end goal (OECD, 2013). Likewise, in international development, there is a shift towards more person-centered metrics of wellbeing instead of objective, external measures that only hint at wellness (Camfield et al., 2008) While much of the international development and public policy approach has historically focused on progress toward alleviating negative social ills, measuring wellbeing offers a more inclusive and positive outlook that may also begin to lighten the stigma and "othering" dynamic more commonly associated with conventional measures (White, 2010). Further, wellbeing takes a more holistic approach to development priorities, incorporating a range of metrics, lessening the tendency to compartmentalize

impact according to outsider priorities (White, 2010). In other words, aspiring to reach a certain level of national (or community) wellbeing is an inclusive concept that can appeal across the board, not just to vulnerable populations, and allows a more holistic interpretation of what that will entail. In contrast, agencies working in silos to reduce a single-focused social ill, such as unemployment, can fuel policy towards that isolated end without an understanding of the interconnections on a systemic level with other issues. Thus, a wellbeing lens ensures that public policy and development goals carry a more holistic and comprehensive approach.

In the humanitarian aid field and within service professions, the wellbeing discourse has prioritized the effect of stress and its impact on burn-out, secondary trauma, and compassion fatigue. The need for greater wellbeing is well documented in anecdotal accounts, but it seems that there are fewer empirical studies that have looked more deeply at the impact of psychosocial stress and trauma on practitioners of social change (Ehrenreich & Elliot, 2004). In such surveys, it was found that between 15 percent and 33 percent of humanitarian aid and human rights workers showed signs of elevated levels of anxiety, depression or post-traumatic stress (Ehrenreich & Elliot, 2004). A more recent survey of 1657 members of the Young Non-Profit Professionals Network revealed that 45 percent planned to leave the sector primarily due to burn-out (Solomon and Sandahl, 2010). The impact of stress on workers in these fields affects the wellbeing of the organization too. This includes increases in illness and health-related expenses, higher legal liabilities, greater risk-taking, higher rates of accidents, more internal conflict, reduced effectiveness, and more turn-over (Antares Foundation, 2012; Ehrenreich & Elliot, 2004). Stress prevention programs are still lacking across the board in these fields. Reasons include lack of funding and lack of local capacity to implement such resilience programs (Antares Foundation, 2012; Ehrenreich & Elliot, 2004).

One of the most significant explorations of wellbeing in the context of social change involves the work of The Wellbeing Project (TWP), co-created with Ashoka, Esalen Institute, Porticus, Impact Hub, Skoll Foundation and Synergos Institute. TWP studied the importance of an 18-month wellbeing intervention among three cohorts of 20 social entrepreneurs from 45 countries and surveyed over 300 change agents from 55 countries on

their perspectives on wellbeing (Severns and Murphy Johnson, 2020). The study found that an investment in inner wellbeing resulted in an increased sense of self, clarity of purpose, more positive and compassionate relationships, and healthier management of personal and professional boundaries (Severns and Murphy Johnson, 2020). The wellbeing intervention involved three six-day retreats every six months and ongoing communications with their cohort and teachers, as well as outside study with wisdom teachers and personal inner work of their own choice in between retreats. The outcomes included changes on a personal, organizational and societal level. On a personal level, participants revealed shifts in their sense of self, including: greater self-awareness and presence, deeper connection to core values, ability to ask for help, improved self-compassion and sense of personal power, and ability to make wellbeing a priority. They also found reductions in feelings of anxiety, shame, anger, judgment, and fear of vulnerability (Severns and Murphy Johnson, 2020). This resulted in shifts in how participants related to others too. Participants described being able to listen more deeply, make deeper connection, judge less, trust more, be more flexible and open, and be less reactive (Severns and Murphy Johnson, 2020). This, in turn, affected their working environment. Participants reported giving up the hero mentality of thinking things would fall apart if they were not available, experiencing less stress around failure, finding new meaning in their personal motivations, placing more trust in colleagues and encouraging others, creating more space for creative possibilities and collaboration, releasing an attachment to rapid scale, and building a culture of wellbeing within their organizations (Severns and Murphy Johnson, 2020). Most importantly, the experience shifted how they approached their work, in that they saw collaboration as an objective, were more likely to welcome diverse perspectives, and approached their change work on a deeper, more holistic level (Severns and Murphy Johnson, 2020). This indicates the possibility that the pursuit of wellbeing through inner work and personal transformation shifts the orientation of change leaders towards themselves, their relationships, and their work in ways that enable greater connection and more effective problem-solving.

### Resilience

Consensus in the scholarly literature conceptualizes community resilience as more of a process or strategy over an outcome, and involves the adaptive capacities of individuals and groups to return to equilibrium quickly and efficiently after adversity (Norris et al., 2007). This means adaptability is preferred, and stability may actually indicate rigidity and a lack of ability to respond or change (Norris et a., 2007). Resilience is often presented as a goal of humanitarian responses, disaster preparedness, and development work, as crisis can result not only from the disaster or stressor itself, but from the community's capacity to meet the needs that follow (Norris et al., 2007).

Norris et al. (2007), in evaluating resilience theory, concluded that the personal, social, and economic capacities and structures that enable resilient systems, have the following qualities: (1) robustness – the ability of communities to withstand stress without breakdown, (2) redundancy - resources that can be substituted during disruption, and (3) rapidity – the ability to mobilize resources and achieve outcomes quickly. Building upon these qualities, there are four categories of networked resources that support resilience, including: (1) economic development - the quantity and diversity of economic resources, especially where lower socio-economic members suffer more during adversity, (2) social capital – including social support like inter-organizational networks, perceived support, reciprocity, and engagement of community members, (3) trusted sources of information and communication systems, and (4) community competence - including decision-making, and collective efficacy (Norris et al., 2007; Sherrieb et al., 2010). These resources empower individuals and communities to adapt to uncertainty, engage local people, mitigate risk, reduce resource inequities, and build social supports and linkages, though the precise strategies and outcomes are still complicated by the variety in the meaning of community (Norris et al., 2007).

In terms of outcomes, it is acknowledged in the scholarly discussion that a group of resilient people does not necessarily guarantee a resilient community, and people are resilient together in different ways than they are alone (Norris et al., 2007). Assessing community wellness, though – the outcome of resilience – can be seen as related to definitions of individual wellbeing for the collective: (1) mental and behavioral health, (2) adequate functioning of and healthy behavior of participants in community, and (3) perceived quality of life (Norris et al., 2007). Future research is needed to understand the implications of resilience for oth-

er outcomes, such as health, and its adaptive capacities. Also needed within resilience research is greater distinction between what counts as resilience versus recovery - a longer and more dysfunctional trajectory towards healthy functioning (Norris et al., 2007).

Resilience often goes hand-in-hand with efforts towards trauma-healing after a significant environmental or man-made tragedy. Often, social capital is damaged when a community fails to protect a survivor from harm. Further, displacement itself can be a source of trauma, often called root shock, "the traumatic stress reaction to the loss of some or all of one's emotional ecosystem" (Fullilove, 2017). This reflects the reality that place or community is interlinked with one's mental health (perceptions of belonging, trust, agency, quality of life, and support), socioeconomic status (financial, housing), interpersonal relations (connection or separation from others), perception of environment (safety, discrimination), and access to support services that enable and are driven by the systems of community (law, justice, security, welfare, health, communications, political representation, education systems) (Steidle, 2019).

Consequently, the individual process of healing is reinforced and enhanced through some form of societal recourse. When survivors have a voice in the context of achieving justice or deriving meaning from one's experience, it helps to restore that sense of connection between survivors and community on which collective wellbeing depends (Herman, 1992). Social capital and resilience are fostered by efforts like restorative justice endeavors, which engage stakeholders in a community using a collective dialogue process to rehabilitate the offender, empower the survivor, and repair the relationship between individuals and community. Community justice includes the community in all aspects of crime prevention and justice processes, shifting the problem-solving emphasis from individual actors and incidents to an understanding of the systemic level with outcomes for the common good (Chavis & Pretty, 1999). This catalyzes community members to act in alignment with common values.

**Trauma-Healing**

Trauma-healing is necessary for both individual and collective functioning, which means trauma can, in certain circumstances, be linked to the realm of social impact. Collective wellbeing depends on the wellbeing of each of its citizens and social structures, and the wellbeing of each individual is, in part, dependent upon the collective context in which they find safety, justice, security, and emotional support. In addition, individual trauma-healing is supported by the process of finding empowerment and agency after the experience of helplessness inherent in a traumatic event. Studies show that personal qualities like self-efficacy and the feeling of having control over one's destiny are associated with greater resilience and lower psychological stress (Herman, 1997; Li at al., 2016).

In Judith Herman's book, Trauma and Recovery, she explores the elements and stages of recovery from trauma, which include not only an individual process of healing but also one that involves "restoring the connection between survivors and their community," often through endeavors that give survivors a voice in the context of political or social change (Herman, 1997, p 3). This is an element critical not only to individual psychological healing but also to the effectiveness of community reconstruction. Holistic approaches that integrate an individual and community healing component can be particularly effective in the context of complex trauma, such as from war and sexual violence. When society has failed to protect a survivor from harm, the situation involves a dissolution of trust in the fundamental aspects of one's relationship to society and community. The roles of society and community, including the rule of law, social justice, security and safety, connection, meaning, preservation of one's rights, capacity for change, control, reconciliation and accountability, all come sharply into question. As expressed by the Psychosocial Working Group, a collaboration between academic institutions and humanitarian agencies to further the development of knowledge and best practice in the field of psychosocial interventions in complex emergencies, "interventions focusing narrowly on mental health concepts… run the risk of ignoring aspects of the social context that are vital to well-being… The psychosocial emphasis on social as well as psychological aspects of well-being also ensures that the family and community are fully brought into the picture in assessing needs." (Psychosocial Working Group, 2004).

Because the techniques used to establish control over another involve disempowerment and disconnection in order to instill terror and dependency, efforts to support empowerment, connection, and self-sufficiency can help repair the damage from long-term abuse, torture, and

violence that causes psychological trauma (Herman, 1997). Judith Herman states about the healing process of rape victims, "…we do know that women who recover most successfully are those who discover some meaning in their experience that transcends the limits of personal tragedy. Most commonly, women find this meaning by joining with others in social action" (Herman, 1997, p 73).

Communities as a whole may need more comprehensive and collective practices and efforts to heal as a community, including strengthening community solidarity, and restoring a sense of dignity and control (Hostland, 2012; The Psychosocial Working Group, 2004). Often communities wounded by violence and aggression come together through cultural or spiritual ceremony or practices to begin to rebuild the fabric of trust and support, without waiting on the mental health system to provide such support, which builds resilience and supports healing (Fenton, 2018). Collective healing also requires a sense of empowerment and social justice, built on changes to social systems (Hostland, 2012).

## Conclusion

Through this preliminary literature review of the scientific and scholarly writing on personal transformation, we have explored the existing knowledge and challenges of defining, measuring and understanding the mechanisms and outcomes of some of the more intangible aspects of human nature. Despite a lack of consensus on the precise definitions and metrics that would adequately capture all aspects of personal transformation, evidence suggests that it involves a process of self-development with a range of positive outcomes. The five domains of personal transformation reviewed tend to work through a five-part pathway to influence prosocial outcomes and potentially social change: (1) Mindfulness and emotional intelligence build the self-awareness and self-knowledge that enable us to (2) move into a place of greater self-regulation. From this process of inner growth, we find greater agency and wellbeing, and (3) develop the capacity to understand others more completely. As we continue to invest in our inner development and relationships, we (4) find deeper connectedness and engage positively with others. As we continue to foster mindfulness, social and emotional intelligence, and a sense of belonging and/or community, we (5) cultivate the foundational prosocial orientation that motivates us to act on behalf of the common good. While the existing research reviewed does not yet demonstrate a direct, causal link between prosocial behavior and positive systemic change, we propose that personal transformation creates positive conditions for the advancement of social change as mindfulness, social intelligence, belonging, and agency combine to drive altruistic action towards greater collective wellbeing. We have outlined the details of this proposed conceptual model for the interrelationships between personal transformation, prosocial behavior and social change in an accompanying paper. Additional research, especially in non-clinical settings, is still necessary to determine whether and how prosocial behavior results in systemic social transformation. For now, we hope that this review engenders greater dialogue about what is known and what more needs to be explored to understand more deeply the relationship between personal transformation and social change.

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# WELLBEING & RESILIENCE MEASUREMENT TOOLS

The following table contains an index of some of the more common tools used to measure this domain of personal transformation and its subcomponents.

| Tool | Author | Description and Note | Link to Find Tool |
|---|---|---|---|
| Resources and Needs Questionnaire | Jackeline Velazco, 2005 | Designed to access household's access to a wide range of resources and the need satisfactions they achieve. | http://www.bath.ac.uk/soc-pol/welldev/research/methods-toobox/ranq-toolbox.htm |
| Quality of Life | WeD-QoL, Laura Camfield and Teresa King, 2006 | A measure of an individual's perceived Quality of Life. The purpose is to be able to compare how people experience and evaluate their lives, including the level of satisfaction felt in relation to values aspects of their lives. | http://www.bath.ac.uk/soc-pol/welldev/research/methods-toobox/qol-toolbox.htm |
| Income and Expenditures Survey | I&E, Jackeline Velazco, 2006 | Designed to collect data on the income and expenditure patterns of households and individuals within it. Created to identify different categories of income, expenditures, credit and saving behavior as well as subjective indicators as global happiness and life domain satisfaction. | http://www.bath.ac.uk/soc-pol/welldev/research/methods-toobox/ies-toolbox.htm |
| **HEDONIC (PLEASURE)** | | | |
| Subjective Happiness Scale | Lyubomirsky & Lepper, 1999 | Measures level of happiness and comparison of level of happiness to others. Chronbach's Alpha (reliability) .79-.94. | https://ggsc.berkeley.edu/images/uploads/The_Subjective_Happiness_Scale.pdf |
| Satisfaction with Life Scale | SWLS, Diener, Emmons, Larson & Griffin 1985 | SCS has strong correlations with self-compassion and emotional intelligence, and negative correlations with self-judgment (Hick and Furlotte, 2010) A global assessment of ones' quality of life according to their own chosen criteria. Chronbach's Alpha (reliability) .87. | https://fetzer.org/sites/default/files/images/stories/pdf/selfmeasures/SATISFACTION-SatisfactionWithLife.pdf |
| **EUDAIMONIC (SUBJECTIVE WELL-BEING)** | | | |

| Tool | Author | Description and Note | Link to Find Tool |
|---|---|---|---|
| Flourishing Scale | Diener et al., 2010 | Designed to measure social-psychological prosperity defined by positive social relationships, purposeful and meaningful life, engagement and interest in one's activities, and feeling competent and capable in activities that are important to the person. Chronbach's Alpha (reliability) .81-.87. | https://ggsc.berkeley.edu/images/uploads/The_Flourishing_Scale.pdf |
| Scales of Psychological Well-Being | Ryff, 1989 | Measures self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. Chronbach's Alpha (reliability) .86-.93. | http://sparqtools.org/mobility-measure/psychological-wellbeing-scale/ |
| Quality of Life Inventory | QOLI, Frisch, Cornell, Villanueva & Retzlaff, 1992 | Measures overall life satisfaction, consisting of the sum of satisfaction in particular areas of life. Chronbach's Alpha (reliability) .79-.89. | https://sites.baylor.edu/michael_b_frisch/qoli-quality-of-life-inventory/ |
| **WELLNESS** | | | |
| Five Factor Wellness Evaluation of Lifestyle | Lonborg, 2009 | Measures five factors identified as the creative self, the coping self, the social self, the essential self, and the physical self. Chronbach's Alpha (reliability) .89-.98. | https://www.mindgarden.com/99-five-factor-wellness-inventory |
| Optimal Living Profile | Renger et. al, 2000 | Measures environmental, intellectual, spiritual, emotional, social and physical health. Wellness is an optimal state of being that everyone is capable of achieving, given their life circumstances. Chronbach's Alpha (reliability) .78-.95. | https://scholarworks.utep.edu/cgi/viewcontent.cgi?article=1015&context=francisco_sotomas |
| **COMPOSITE** | | | |
| Authentic Happiness Inventory | Zabihi, Ketabi, Tavakoli & Ghadiri, 2014 | Designed to measure pleasure, engagement, meaning in life, and interpersonal connectedness as elements of happiness. Chronbach's Alpha (reliability) .93. | https://www.authentichappiness.sas.upenn.edu/testcenter |
| 12-Item Well-Being Questionnaire | Pouwer, Van der Ploeg, Ader, Heine & Snoek, 1999 | Measures negative affect, positive affect and energy. Chronbach's Alpha (reliability) .66-.83. | https://www.healthpsychologyresearch.com/find-a-questionnaire/well-being-questionnaire-0 |

| Tool | Author | Description and Note | Link to Find Tool |
|---|---|---|---|
| General Wellbeing Schedule | Fazio, 1977 | Designed to assess mental health, quality of life and subjective wellbeing. Chronbach's alpha .91-.95. | https://link.springer.com/reference-workentry/10.1007% |
| Oxford Happiness Inventory | Argyle, Martine & Crossland, 1989 | A broad measure of personal happiness designed to mirror the Beck Depression Inventory format. Chronbach's alpha .90. | http://www.blake-group.com/sites/default/files/assessments/Oxford_Happiness_Questionnaire.pdf |
| Oxford Happiness Questionnaire | Hills & Argyle, 2002 | A broad personal measure of personal happiness. Chronbach's alpha .91. | https://www.theguardian.com/lifeand-style/2014/nov/03/take-the-oxford-happiness-questionnaire |
| Pemperton Happiness Index | Hervas & Vazquez, 2013 | Covers multiple elements of well-being (general, hedonic, eudaimonic, social), assesses overall memory of wellbeing yesterday, and is validated in multiple countries and languages. Chronbach's alpha .82-.93. | https://www.ncbi.nlm.nih.gov/pubmed/23607679 |
| Warwick-Edinburgh Mental Wellbeing Scale | Tennant et al., 2007 | Measures a wide view of well-being, including emotional, cognitive, and psychological by focusing on the positive. Chronbach's alpha .89-.91. | https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs/using |
| WHO-Ten Well-Being Index | Bech, Gudex & Staehr Johansen, 1996 | Measures the absence of negative states (anxiety, depression) and the presence of positive (energy). Chronbach's alpha .85. | https://www.ncbi.nlm.nih.gov/pubmed/8843498 |
| **RESILIENCE** | | | |
| Zigler-Phillips Social Competence Index | Zigler & Glick, 1986 | Measures various interlinked areas of competency through composites. | https://psycnet.apa.org/record/1987-12360-001 |
| The Community Assessment of Resilience Tool | CART, Pfefferbaum et al., 2006 | Assesses community resilience. | https://www.oumedicine.com/docs/ad-psychiatry-workfiles/cart_online-final_042012.pdf |

| Tool | Author | Description and Note | Link to Find Tool |
|---|---|---|---|
| **TRAUMA-HEALING** | | | |
| Clinician-Administered PTSD Scale | CAPS, Blake et al., 1995 | A 30-question, structured interview delivered by trained professionals that assesses 17 symptoms of PTSD and provides a severity score for current or long-term diagnosis. | https://www.ptsd.va.gov/professional/assessment/documents/CAPS_5_Past_Week.pdf |
| PTSD Check List - 17 | PCL – 17 | A 17-question measure for self-report symptoms of PTSD using a 5-part Likert scale. Scores range from 17-85, with measures of 50 or higher indicating PTSD. | https://www.mirecc.va.gov/docs/visn6/3_PTSD_CheckList_and_Scoring.pdf |
| PTSD Check List for DSM-5 | PCL-5, Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013). | A 20-item self-administered scale corresponding to DSM-IV (35) criteria for PTSD. A 20-item self-report measure that assesses the 20 DSM-5 symptoms of PTSD. It's purpose is to monitor symptoms from treatment, screen and diagnosis PTSD. | https://www.ptsd.va.gov/professional/assessment/documents/PCL5_Standard_form.PDF |
| Posttraumatic Diagnostic Scale | PDS, Foa, E., Cashman, L., Jaycox, L., & Perry, K. (1997) | A 49-item self-report measure recommended for use in clinical or research settings to measure severity of PTSD symptoms related to a single identified traumatic event. | https://www.ptsd.va.gov/professional/assessment/adult-sr/pds.asp |
| Beck Depression Inventory | BDI, Beck, et al., 1961 | A 21-item, self-report rating inventory for evaluating the severity of depression. | https://www.ismanet.org/doctoryourspirit/pdfs/Beck-Depression-Inventory-BDI.pdf |
| Davidson Trauma Scale | DTS, Davidson, et al., 1997 | A 17-item self-report scale designed to assess 17 PTSD symptoms. | https://www.ptsd.va.gov/professional/assessment/adult-sr/dts.asp |
| Impact of Event Scale - Revised | IES-R, Creamer, et al., 2003 | A 22-item self-report scale not intended to diagnose but assess subjective distress. | https://consultgeri.org/try-this/general-assessment/issue-19.pdf |

# WELLBEING & RESILIENCE ESSENTIAL STUDIES

Following are a selection of key studies that help define this domain of personal transformation, provide an assessment of tools for its measure, or provide insights on its relevance to social change.

| Study | Citation | Summary | Link |
|---|---|---|---|
| Wellbeing Research in Developing Countries: Reviewing the Role of Qualitative Methods. | Camfield, L., Crivello, G., & Woodhead, M. (2008). Wellbeing Research in Developing Countries: Reviewing the Role of Qualitative Methods. Social Indicators Research, 90(1), 5–31. doi: 10.1007/s11205-008-9310-z | A review of the benefits of qualitative methods to understanding wellbeing among children and adults in developing countries. The authors propose that qualitative approaches are essential in understanding people's experiences of wellbeing, and best used alongside quantitative methods. | https://link.springer.com/article/10.1007/s11205-008-9310-z |
| Measuring Well-Being: A Review of Instruments | Cooke, P.J., Melchert, T.P., Connor, K. (2016). Measuring Well-Being: A Review of Instruments. The Counseling Psychologist, 44 (5), 730-757. DOI: https://doi.org/10.1177/0011000016633507 | A literature review of definitions and measurements of well-being, and a critical evaluation of self-report instruments to measure wellbeing. 42 tools are identified and evaluated on conceptual and psychometric properties. | https://journals.sagepub.com/doi/ |
| The Challenge of Defining Wellbeing | Dodge, R., Daly, A., Huyton, J., & Sanders, L. (2012). The challenge of defining wellbeing. International Journal of Wellbeing, 2(3), 222-235. doi:10.5502/ijw.v2i3.4 | A multi-disciplinary review of the many definitions of wellbeing and provides an overview of the primary theoretical perspectives. Proposes a new definition which is universal, simple and a basis for easy measurement. | https://internationaljournalofwellbeing.org/ijow/index.php/ijow/article/view/89/238 |
| The Old Wounded: Destructive Plasticity and Intergenerational Trauma | Fenton, B. (2018). The Old Wounded: Destructive Plasticity and Intergenerational Trauma. Humanities, 7(2), 51. doi: 10.3390/h7020051 | Addresses gaps in trauma theory related to intergenerational trauma. Examines Catherine Malabou's theory of the subject of trauma, Rachel Yehuda's research in epigenetics, and intergenerational trauma among First Nations people in Canada conducted by Amy Bombay and colleagues. | https://www.mdpi.com/2076-0787/7/2/51 |

| Study | Citation | Summary | Link |
|---|---|---|---|
| Community approaches to trauma: Organizations' responses in Rwanda | Hostland, E. (2012). Community approaches to trauma: Organizations' responses in Rwanda (Order No. MR91741). Available from ProQuest Dissertations & Theses Global: The Humanities and Social Sciences Collection. (1321737695). | The findings outline a model of the delivery, tools and methods used in community approaches, as well as the contribution and challenges of the community approach in the Rwandan context. What appears to be emphasized in Rwanda is healing trauma through sharing and expression while developing social support networks and community building to relieve this trauma. | https://drive.google.com/file/d/1Uo43bcTl0Peu-8Oe9i-tvZSKZUnkQxazm/view |
| Clinical Implications of Neuroscience Research in PTSD | Kolk, B. A. V. D. (2006). Clinical Implications of Neuroscience Research in PTSD. Annals of the New York Academy of Sciences, 1071(1), 277–293. doi: 10.1196/annals.1364.022 | Failures of attention and memory in posttraumatic stress disorder (PTSD) interfere with the capacity to engage in the present: traumatized individuals "lose their way in the world." This article discusses the implications of this research by suggesting that effective treatment needs to involve (a) learning to tolerate feelings and sensations by increasing the capacity for interoception, (b) learning to modulate arousal, and (c) learning that after confrontation with physical helplessness it is essential to engage in taking effective action. | https://www.ncbi.nlm.nih.gov/pubmed/16891578 |
| Review of 99 self-report measures for assessing well-being in adults: exploring dimensions of well-being and developments over time | Linton, M.-J., Dieppe, P., & Medina-Lara, A. (2016). Review of 99 self-report measures for assessing well-being in adults: exploring dimensions of well-being and developments over time. BMJ Open, 6(7). doi: 10.1136/bmjopen-2015-010641 | A review of 99 instruments measuring well-being which explores the dimensions of well-being measured and the development of tools over time. | https://bmjopen.bmj.com/content/6/7/e010641 |
| The Construct of Resilience: A Critical Evaluation and Guidelines for Future Work. | Luthar, S., Cicchetti, D. & Becker, B. (2000). Child Dev, 71(3): 543-562. | Luther et al. presents a critical appraisal of resilience, addressing criticisms and clarifying misunderstandings | https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1885202/ |
| The metatheory of resilience and resiliency | Richardson, G. (2002). The metatheory of resilience and resiliency. Journal of Clinical Psychology, 58(3): 307-321. | Richardson presents the three waves of resilience theory and suggests practical paradigms of resiliency that empower client control and choice. | https://www.researchgate.net/publication/11523616_The_Metatheory_of_Resilience_and_Resiliency |

| Study | Citation | Summary | Link |
|---|---|---|---|
| Circuits and systems in stress: II. Applications to neurobiology and treatment in posttraumatic stress disorder | Vermetten, E., & Bremner, J. D. (2002). Circuits and systems in stress: II. Applications to neurobiology and treatment in posttraumatic stress disorder. Depression and Anxiety, 16(1), 14–38. | Comprehensive working model for understanding the pathophysiology of posttraumatic stress disorder (PTSD). Studies of the neurobiology of PTSD in clinical populations are reviewed. | https://www.researchgate.net/publication/11184335_Circuits_and_systems_in_stress_II_Applications_to_neurobiology_and_treatment_in_posttraumatic_stress_disorder |
| Analysing wellbeing: a framework for development practice | White, S.C. (2010). Analysing wellbeing: a framework for development practice. Development in Practice, 20 (2), 158-172. DOI: 10.1080/09614520903564199 | A framework for measuring wellbeing in development work developed by the Wellbeing in Developing Countries Research Group (WeD). Wellbeing is measured at individual, relational and collective levels, and viewed as a social process with material, relational, and subjective dimensions. Explores the potential drawbacks of using a wellbeing focus. | https://www.tandfonline.com/doi/full/10.1080/09614520903564199?scroll=top&needAccess=true |
| The Ethical Imperative of Qualitative Methods: Developing Methods of Subjective Dimensions of Well-being in Zambia and India | White, S.C. & Jha, S. (2014). The Ethical Imperative of Qualitative Methods: Developing Measures of Subjective Dimensions of Well-Being in Zambia and India. Ethics and Social Welfare, 8(3), 262-276. DOI: 10.1080/17496535.2014.93241 | Argues the critical role of qualitative methods of measuring subjective aspects of well-being, drawing on primary research in Zambia and India. Demonstrates the political, ethical and policy implications of such qualitative research methods for measuring well-being. | https://www.tandfonline.com/doi/abs/10.1080/17496535.2014.932416 |