

Concepts and Measures of Resilience

Anita Stewart, Ph.D.

Outline

- Concept of resilience (complex and multidimensional)
- Measures of resilience (no best one)
- Recommend developing comprehensive conceptual framework
- Opportunities for researchers in minority aging

Measurement Science: Process of Developing Measures

- Define concept
 - Unobservable, latent variable
- Create items to reflect concept
- Collect data, create scales that are...
 - Reliable
 - Valid - fully reflect defined concept (content validity, construct validity)

Importance of Concept Definition

- Concepts need to be defined precisely
 - Ambiguous concepts lead to ambiguous measures
 - Concepts usually defined via qualitative methods
- In minority aging research
 - Most psychosocial concepts need to be revisited for relevance

How is Resilience Defined in Older Adults? Sources of Information...

- Concept overviews
 - Older adults (Windle, 2008; MacLeod, 2016; van Kessel, 2013; Ong, 2009)
 - Adults of all ages (Johnston, 2015; Ryff, 2012, Tusaie, 2004)
- Qualitative studies in older adults
 - Review of 19 studies (van Kessel, 2013)
- Measures of resilience

Basic Concept of Resilience

- Trait-based
- Process-based
- Outcomes-based

Trait-Based Resilience Definitions

Ability/capacity to....

and

characteristics/resources needed to

bounce back/recover from/adapt to....

adversity/stressor/stress

Van Kessel, 2013; Ong, 2009; Windle, 2008; MacLeod, 2016;
Tusaie, 2004; Ryff, 2012; Johnston, 2015; Deshields, 2016

Process-Based Resilience Definitions

Process of....
adapting/managing....
or
negotiating/navigating resources....
to respond to....
adversity/stressor/stress

Windle, 2010; MacLeod, 2016; van Kessel, 2013; Masten, 2010

Outcomes-based Resilience Definitions

Maintenance/recovery/improvement/
bouncing back/returning to....

original state of health....

after....

adversity/stressor/stress

Ryff, 2012; Dyer, 1996; Carver, 1998; Zautra, 2010

Outcomes-based Resilience

- Possible patterns of change in health following stressor
 - Chronic disruption
 - Recovery/return to normal
 - Delayed disruption
 - Maintenance (no change)
 - Improvement

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- Possible patterns of change in health following stressor
 - Chronic disruption
 - Recovery/return to normal (resilience)
 - Delayed disruption
 - Maintenance (no change) (resistance)
 - Improvement (thriving)

Deshields, 2004; Bonnano, 2004; Ryff, 2012

All Types of Resilience – Based on Health Outcome of Interest

- Cellular
- Physiological
- Clinical
- Physical health/functioning
- Emotional
- Psychological

Hadley, 2018; Resnick, 2011; van Kessel, 2013

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Measuring Resilience in Older Adults: A Conundrum

Aside from the problem of what concept is being measured....

- Numerous measures
- Only a few developed for older adults
- Much variation in what is measured

Reviews of Resilience Measures

- Two systematic reviews
 - Adults (Windle, 2011)
 - Stringent criteria
 - Of 15 measures, no best one
 - Older adults (Cosco, 2015)
 - 5,909 studies (“resilience & aging”)
 - 426 tested psychometrics, 6 met criteria (3 measures)
- Stress Measurement Network - adults
 - 4 measures (<https://stresscenter.ucsf.edu>)

Six “Best” Measures

- Resilience Scale (RS) (Wagnild, 1993)
- Connor-Davidson Resilience Scale (CD-RISC) (Connor, 2003)
- Brief Resilience Scale (BRS) (Smith, 2008)
- Resilience Scale for Adults (RSA) (Friborg, 2003)
- Brief Resilient Coping Scale (BRCS) (Sinclair, 2004)
- Multidimensional Individual and Interpersonal Resilience Measure (MIIRM) (Martin, 2015)

Measures of Individual Characteristics and Resources

- RS (5): self-reliance, perseverance, existential aloneness, meaningfulness, equanimity
- CD-RISC (5): competence, acceptance of change, control, spiritual influences, tolerance
- RSA (5): personal competence, social competence, family coherence, social support, personal structure
- MIIRM (8): self-efficacy, social support, optimism, spirituality/religiosity, relational accord, emotional regulation

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Measures of Perceived Trait Resilience

- Brief Resilience Scale – 6 items
 - “I tend to bounce back quickly after hard times” “It does not take me long to recover from stress”
- Brief Resilient Coping Scale – 4 items
 - “I look for creative ways to alter difficult situations” “Regardless of what happens.. I can control my reaction..”

Limitations of Resilience Measures Identified by All Reviews

- Questionable conceptual adequacy
- Inconsistent factor structure across studies
- Most in early stages, need further validation
- No measures tested in ethnic minority groups

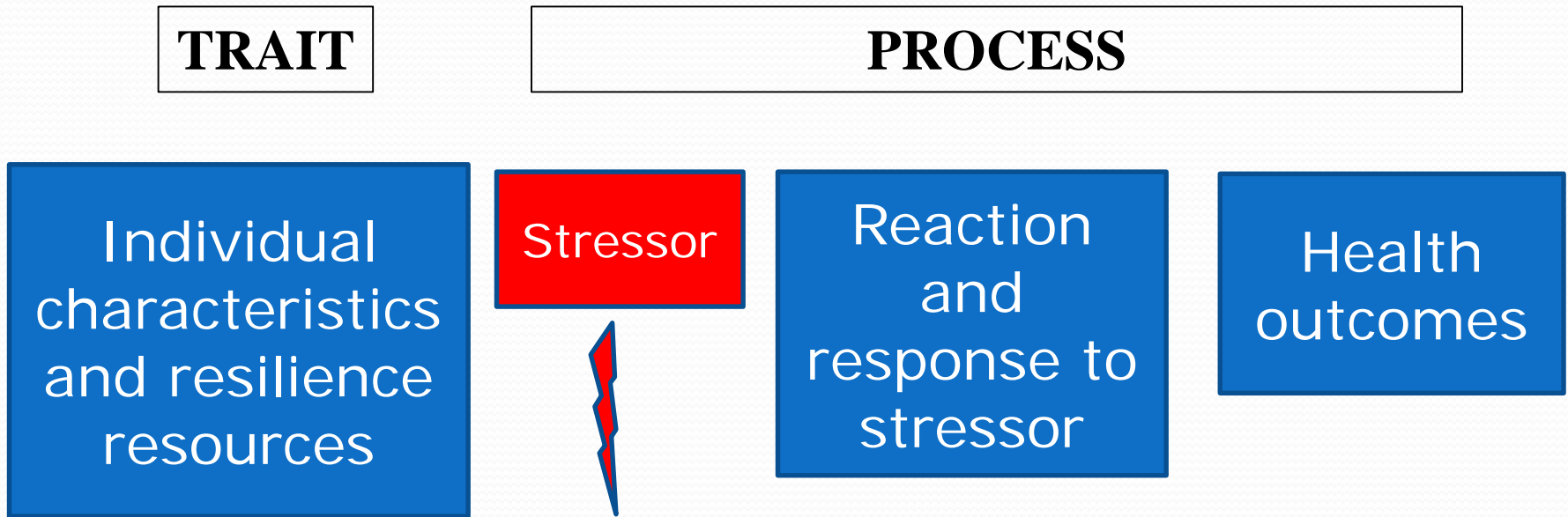
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Build Comprehensive Conceptual Framework of Resilience

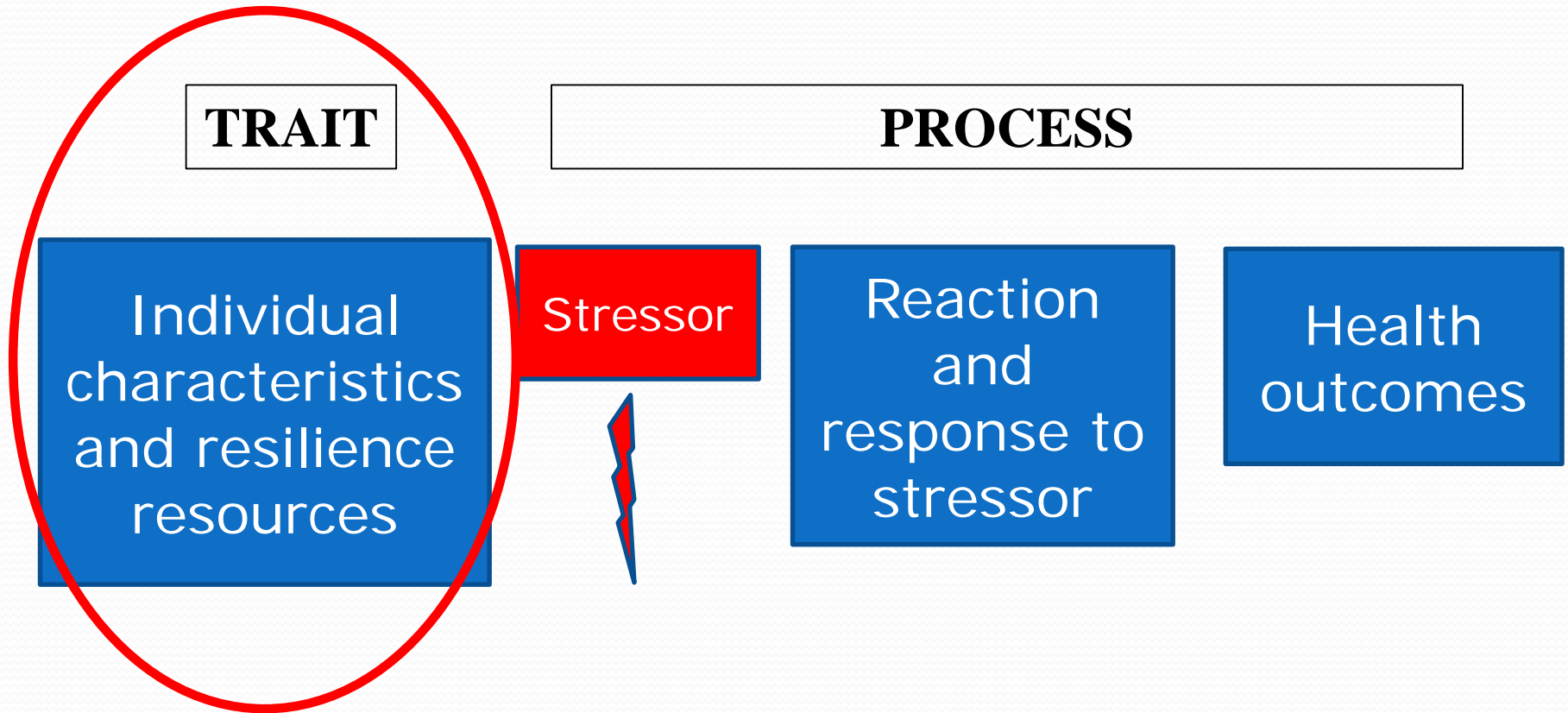
- Overarching conceptual framework of resilience
 - Of entire process
 - Of concept of trait resilience

Simplified Conceptual Model (Heuristic) Blending Trait & Process

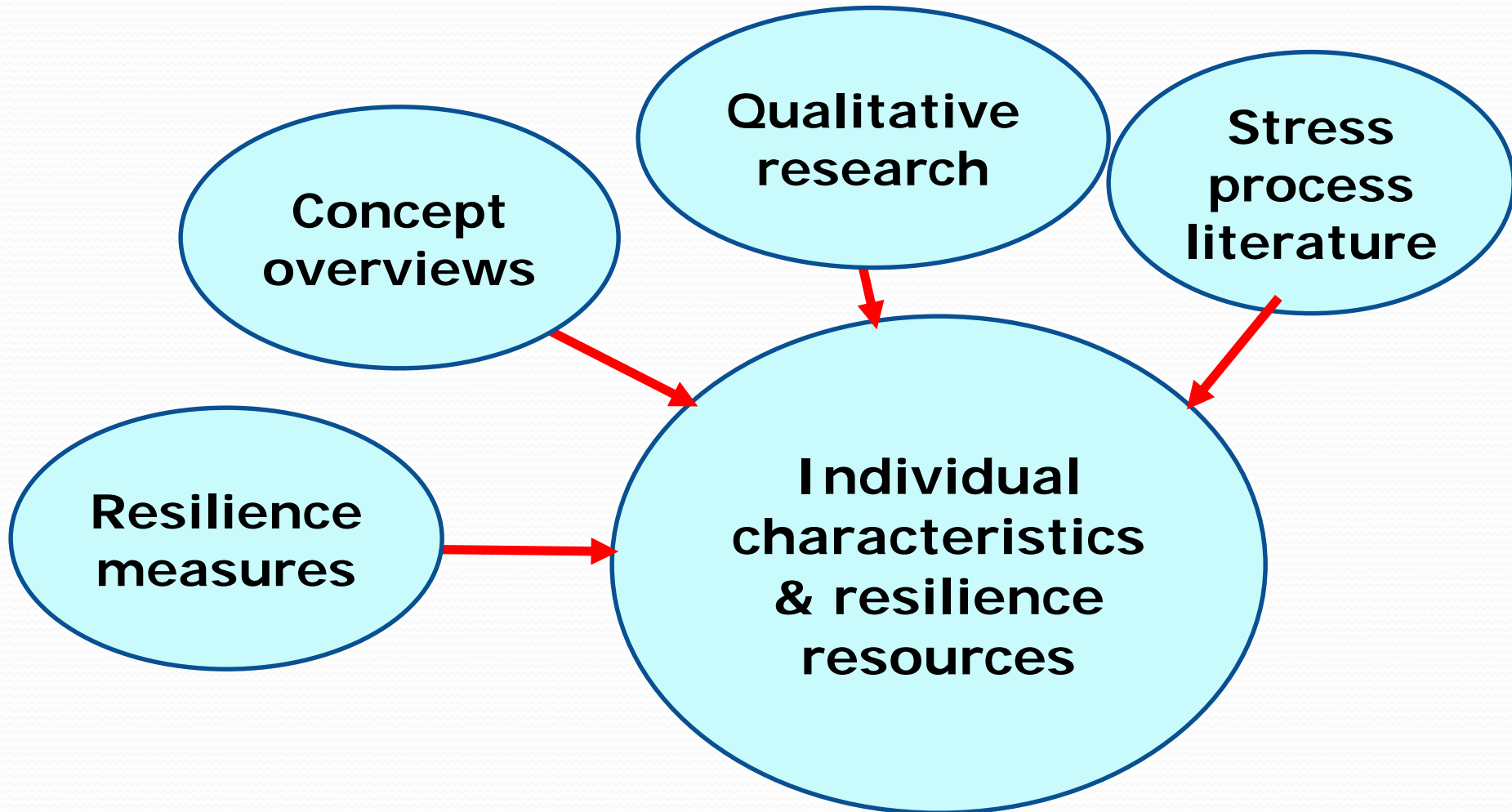


Adapted from TL Deshields et al., *Psycho-oncology*, 2016;25:11-18.

Simplified Conceptual Model (Heuristic) Blending Trait & Process



Build Conceptual Framework of Trait Resilience



Trait-Based Resilience

- Individual (personal) characteristics
 - Intrapersonal/personal resources
 - Individual resilience resources
 - Personality assets
 - Personal protective factors
- External (environmental) resources
 - Community/social protective factors
 - External supports
 - Social resources

Individual Characteristics of Resilience – Most Common

- Positive emotions, emotional regulation
 - Optimism, emotional expression, staying calm
- Personal agency/competence
 - Sense of control, self-efficacy, self-reliance, perseverance, self-acceptance, mastery
- Sense of meaning/purpose
 - Sense of coherence, eudaimonia (meaning making), spirituality
- Usual coping strategies
 - Accept circumstances, stress management skills, flexibility, support-seeking

Resilience Resources (External Resources) - Most Common

- Social support
 - Social connectedness, positive relationships, family cohesion, availability of emotional and tangible support
- Neighborhood characteristics
 - Neighborhood cohesion, safety, aesthetic quality

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Opportunities for Researchers in Minority Aging

1. Explore resilience concepts in minority elders using qualitative methods
2. Develop conceptual framework of trait resilience relevant to minority aging
3. Explore resilience pathways using existing datasets, with focus on minorities

1. Explore Resilience Concepts in Minority Elders

- Existing concepts/measures may not reflect perspectives of diverse groups
- Need qualitative studies of concepts
 - Additional “trait-based” characteristics?
 - Are existing ones defined the same way?
- Methods
 - Focus groups, in-depth interviews, narrative reflection, story telling

Qualitative Research: Resilience Concepts in Older African Americans

- Independence, determination, perseverance, tenacity, spirituality (Becker, 2005)
- Respect for family and for elderly, strong identity with racial group (van Wormer, 2011)
- Perseverance, reflection to address difficulties, supportive environment, religion/spirituality (Teti, 2012)

Qualitative Research: Resilience Concepts in Native American Elders

- Connectedness (oneness with all creation), ability to bridge cultures, strong sense of identity, being responsible and accountable, relationships with tribal community (Grandbois, 2009)

2. Develop Conceptual Framework of Trait Resilience

- Identify trait resilience concepts appropriate to older adults
 - Integrate qualitative findings from minority elders
- Model after existing frameworks
 - Social determinants of health
 - Multilevel determinants of health
 - Determinants of health disparities

3. Explore Resilience Pathways in Existing Datasets

- Numerous studies of pathways to resilience using secondary datasets
 - Need more studies of minority groups
- Across diverse groups
 - What trait resilience characteristics are protective in responding to stress/adversity?
 - How do people use resources in responding to stress/adversity?

Identify Datasets on Aging with Relevant Measures

- Leverage existing studies of aging that include measures of stress and resilience (and minority groups)
 - Tara Gruenewald identified these
- Within each, identify measures of:
 - Individual characteristics and resources
 - Overall trait resilience
 - Stressors
 - Health outcomes

Measures of Individual Characteristics and Resources in Secondary Datasets

- Measures may not be framed as “resilience” measures
 - Psychosocial determinants of health
 - Social and personal resources
 - External and internal resources

Examples: Measures of “Resilience Characteristics” in Secondary Datasets

- Health and Retirement Study (HRS)
 - Optimism, mastery, sense of control, prayer, religious participation, purpose in life
- MIDUS
 - Sense of purpose, positive emotions, sense of control, religion/spirituality, optimism

Examples: Measures of Overall Trait Resilience in Secondary Datasets

- Health and Retirement Study
 - Resilience measure derived from items to parallel “Resilience Scale” (Manning, 2016)
- MIDUS
 - “Positive Reappraisals” scale (Wrosch, 2000)
 - “Ego Resilience Scale (Block, 1996)
- Notre Dame Longitudinal Study of Aging
 - Dispositional Resilience Scale (Bartone, 1989)

Examples: Measures of Stressors in Secondary Datasets

HRS

- Traumatic/stressful life events
- Childhood adversity
- Perceived stress
- Work stress
- Neighborhood disorder

MIDUS

- Socioeconomic adversity
- Health decline with aging
- Abuse as a child
- Losing a spouse
- Having cancer

Examples: Measures of Health Outcomes in Secondary Datasets

HRS

- Physical and mental health
- Physical functioning
- Cognition
- Physiologic indicators
- Biomarkers
- Perceived health

MIDUS

- Emotional distress, well-being
- Cognitive capacities
- Subjective health
- Chronic conditions
- Functional capacities
- Biological risk factors

Examples: Resilience Characteristics Shown to be Protective

- Hispanic caregivers: those with higher levels of *familismo* reported less burden (Losada, 2006)
- Older Black men: greater frequency of prayer reduced deleterious effects of trauma on health (Brown, 2018)
- Older adults (age 51-98): resilience protected against decline in functioning due to aging (Manning, 2016)

Conclusions: Suggested Framework is Oversimplified

- Resilience process much more complex
 - Dynamic, iterative, interactive
 - Resilience not ever “done” (Deshields, 2016)
- Need to consider
 - Duration of stressor (chronic/acute)
 - Multiple resilience characteristics together
 - Number and magnitude of stressors
 - How trait resilience and processes change over time

Conclusions: Resilience Research in Minority Aging is in Early Stages

- A great deal of thought has gone into studying resilience
- BUT... perspective of minority groups is mostly missing
- Plenty of opportunities
- AND... we can move ahead with measurement and research simultaneously