Theoretical Analyses

Adult Personal Resilience: A New Theory, New Measure, and Practical Implications

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Abstract

This is a new theory of adult personal resilience that can apply in any society. It differs from previous theories, which are post hoc because they traditionally focus on helping victims find ways to live with trauma after the trauma occurs. The present theory is a positive psychology approach because it identifies the aspects of a person that can make him or her stronger to prevent personal problems from occurring as well as to deal with traumas and the various vicissitudes of life in general. Whereas this is a new theory, and a complete theory would require a more comprehensive monograph, this paper focuses on describing the essential features of the theory. These are to define adult personal resilience and distinguish it from general concepts of resilience, explain personal resilience as a multidimensional construct by identifying the four dimensions of adult personal resilience (Determination, Endurance, Adaptability, and Recuperability), briefly review the new theory's advantages over previous theories of resilience, describe the new four-subscale measure of adult personal resilience, and discuss implications of the new concept for theory, research, and practice.

Keywords: adaptability, Adult Personal Resilience Theory, determination, endurance, measure, recuperability

Introduction

Despite the fact that there have been several theories of personal resilience, and that some of the theories have suggested that there are more than one dimension, those theories have not focused on the person's internal characteristics or provided an adequate elucidation of the exact components of adult personal resilience. The present paper identifies four clear dimensions of adult personal resilience as internal factors that will help achieve a better understanding of what resilience is, and, by explaining the new dimensions, takes a positive psychology approach that will help both research and practice. The sections of this paper are organized to distinguish between the general concept of resilience and personal resilience, clearly define adult personal resilience as a multidimensional construct, identify and define the four dimensions, describe the new four-subscale measure of personal resilience for adults, and discuss implications of the new measure for theory, research, and practice.

Distinguishing General From Personal Resilience

First, the term "resilience" should be defined to gain a clear understanding of the concept. The term comes from the Latin *"resilire,"* which means "to recoil." Thus, resilience means to rebound, spring back, and have elasticity, flexibility, or recuperability. Also, the Oxford English Dictionary (n.d.) offers two meanings: (a) Able to recoil or spring back into shape after bending, stretching, or being compressed (said of material objects); or (b) Able to withstand or recover quickly from difficult conditions (said of a person). Hence, the dictionary definitions reveal that resilience can occur in inanimate objects as well as animate beings.

Whereas this paper focuses on *human* resilience, it is necessary to distinguish between resilience for inanimate objects versus animate beings, with the objective of refining the concept for human beings. For certain inanimate physical objects, such as a soccer ball, resilience refers to the object regaining its shape after being distorted by some outside force. In other words, a resilient inanimate object that comes under pressure can spring back to its original size and shape without experiencing irreparable damage.

For human beings, *personal* resilience refers specifically to the ability of a person to endure and to recover from difficulties. Unfortunately, even in the field of human resilience there have been different conceptions of what the term means (Tusaie & Dyer, 2004), ranging from environmental influences that are *external* to the person, such as social support given to children (Dumont & Provost, 1999) to spiritual influences on elderly people (Langer, 2004). But, for clarity of the theory, external influences ought not to be included in defining *personal* resilience, which should be regarded as a characteristic that exists *within* a person.

Focus on Adult Personal Resilience

Another distinction that needs to be made is that the present theory focuses on *adult* resilience. As pointed out by other writers and in numerous reviews, most research on resilience had been dedicated to the study of children (Howard, Dryden, & Johnson, 1999). But resilience is not limited to children (Cicchetti & Tucker, 1994) and, as a personal construct, resilience manifests throughout a person's life, such that there is an indisputable need to study and understand resilience among adults (Luthar, Cicchetti, & Becker, 2000).

Adult Personal Resilience Defined and Regarded as a Multidimensional Construct

In addition to personal resilience being internal, the literature indicates that it is multifaceted, and suggests that it refers to being determined to survive (e.g., Bandura, 1989), being able to endure hardships (e.g., Rutter, 1987), to adapt to changing conditions (e.g., Bonanno, 2004), or to recover from adversity (e.g., Tugade & Fredrickson, 2004). Thus, based on the literature, the concept is defined: "*Adult personal resilience is a multifaceted construct that includes a person's determination and ability to endure, adapt, and recover from adversity.*" This reveals that there are four dimensions of adult personal resilience, which, in order to capture the domains of personal resilience derived from the literature, are named: Determination, Endurance, Adaptability, and Recuperability. To build a more complete theory of adult personal resilience, it is also necessary to define the four components and elaborate on their nature; particularly that they are personal characteristics, as revealed below.

Determination

Determination is defined as the willpower and firmness of purpose that a person has and the decision to persevere and/or to succeed. As indicated by this definition, this component reflects a conscious or cognitive dimension of personal resilience. As an example, a wounded soldier who is the only survivor of his group on a battlefield believes

that the only way to save his compatriots in other combat units would be to eliminate the enemy machine gun that killed his comrades, and, despite his wounds and the high probability of being killed, decides to attack that machine gun position single-handedly (see Owens, 2004, p. 124). This is determination despite the setback of physical trauma and the conscious awareness of the difficulty of the task.

Endurance

Endurance is defined as the personal strength and fortitude that one possesses to withstand unpleasant or difficult situations without giving up. This could be both cognitive and physical. A person might be able to live through some kinds of trauma to his or her corporal body, thus enduring physical suffering. But endurance can also be cognitive. For example, one can adjust one's thinking when a new leader comes to power and overburdens the people with excessive taxes that force them to live in wretched conditions and/or go to debtor's prison (making life a greater struggle than it normally is); that is, some people take a philosophical (cognitive) view that helps them adjust their will to endure the hardships, including the oppression of tyranny (which might last for years or decades), believing things will change and waiting until that tyrant is replaced by a more humane leader (see Yip, 2004).

Adaptability

Adaptability is defined as the capacity to be flexible and resourceful, and to cope with adverse environments and adjust oneself to fit into changing conditions. This aspect is more cognitive than physical because one can make a conscious effort to change one's thinking and/or behavior, but one cannot readily change one's physiological structure to fit into a new situation. Examples of situations in which one might need to be flexible in one's behavior are many (some examples follow).

A common example is when a person marries and must adapt to the behaviors and desires of his or her spouse. Some people are more adaptable and are more likely to stay married, while other people are less adaptable (and prefer to divorce). Another common example is when one goes to work for the first time with people who were not known before, or when one changes jobs, such that the person begins to work with different people with different personalities; or when one goes to work in a different company, with its unique organizational culture, and its particular rules regarding the ways things must be done. Some individuals transition easily across different jobs and organizations and can adapt well to working with different people (see Pulakos et al., 2002).

A somewhat less common example is when a person goes to live in a different country with a different culture, where the people have different values, beliefs, attitudes, and behaviors. Even in these situations, some people are more able (and some less able) to adapt to the various requirements of living in different countries with different cultures (Caligiuri, 2000).

Recuperability

Recuperability is defined as the ability to recover, physically and cognitively, from various types of harm, setbacks, or difficulties in order to return to and reestablish one's usual condition. This aspect is probably the one most people imagine when thinking about resilience, and implicitly regard it as a physical dimension. But now that it has been explicitly identified as one of the four components, and because of its importance, it deserves more specific elaboration. Recuperability can be physical or cognitive, but is typically both.

Although some psychologists may have considered the physical aspect of resilience, they rarely mentioned its physiological foundations. Miller (1978), on the other hand, put this into perspective by means of a medical analysis that elaborated on the fact that all living systems, including organisms, such as people, as well as the cells of which they are composed, have certain subsystems that enable them to recuperate.

Specifically, cells have several subsystems that are involved in damage repair and/or growth. For growth, the cell membrane allows entry of needed materials (e.g., nutrients) that are used for growth. Other cellular components that help physiological recuperability are certain subcellular organelles, such as ribosomes, which produce proteins, and the endoplasmic reticulum, which helps with detoxification and damage repair. For damage repair, cells are known to repair DNA (e.g., after radiation causes lesions in the strands of the double-helix) by synthesizing materials to bind the damaged DNA (Drabløs et al., 2004). Consequently, when it is considered that human beings (as organisms) are composed of cells and have analogous reparative subsystems (Miller, 1978), it becomes clear that Recuperability includes a physiological aspect, and that it is a necessary component of personal resilience.

A further note may be made about Recuperability versus "recovery." That is, the explanation of Recuperability as an aspect of resilience has clarified a point one author tried to make by saying that "resilience is different from recovery" (Bonanno, 2004, p. 20). According to the above description of Recuperability, it is a component of resilience that includes the *ability* to recover. Hence, the claim that recovery and resilience are different is mainly a matter of perspective. To resolve this, recovery should be viewed as an *outcome*, while Recuperability should be perceived as a *characteristic* of resilience that enables individuals to recover.

The cognitive component of Recuperability may be less visible (because, unlike physical cells, it cannot be examined under a microscope), but the cognitive aspect is also important for recuperability. Cognitive recuperability refers to having positive thoughts about one's condition. In fact, a large number of psychotherapists and counselors rely upon the patient's conscious cognitions as a means of helping them to recover from the psychological impacts of various types of trauma. For example, cognitive behavioral therapy (CBT) has become a popular treatment used by therapists to help trauma victims (Gaudiano, 2008).

Advantages of the 4-Component Resilience Theory Over Previous Theories

The advantages of the new theory become apparent by viewing the weaknesses of previous resilience theories, with the most obvious weakness being that previous theories include external factors, particularly social support, into the theoretical content of personal resilience. It should be noted, of course, that social support is certainly an important factor in helping people deal with and recover from difficulties. But the problem is not whether social support is helpful; rather, the concern is that social support is *external* to the person, and, therefore, cannot be included as a factor to define *personal* resilience, which is *intra*-personal. As clarification, social support is a valuable external factor that can help a person's recovery, but whereas the source of the help is external it differs from "personal" resilience, which is defined as being internal to the individual. To illustrate with a medical example, if a doctor is defining coronary disease, i.e., an internal heart condition, of which chest pain is a symptom, that doctor would not include in the definition of heart disease any type of external drugs (e.g., nitroglycerine) that could be given to alleviate the pain. Simply stated, the heart and its condition are internal, but the helpful drug is external, to the patient.

Another weakness of previous theories, in addition to including external aspects, is the misapplication of the idea of adult personal resilience to inappropriate populations. Two examples may be noted: The first is the obvious

problem of trying to apply an *adult* theory and/or measure to children. In adult measures of resilience, the items, implicitly or explicitly, refer to personal characteristics and experiences gained over a person's lifetime. Thus, it is illogical to expect that ideas and items relating to adult resilience would be relevant to children because children have not lived long enough to have fully developed all aspects of their personality, or to have encountered a lifetime of (stressful) experiences.

The second example is the attempt to use the resilience scale to study deadly diseases, i.e., those that cannot be cured. This idea might seem objectionable to researchers who attempt to study resilience among people affected by deadly diseases. But if the inappropriateness of using resilience measures with such diseases is not obvious, this idea becomes clear when all four dimensions of personal resilience are considered. That is, studying people with deadly diseases could not make full use of the whole concept of personal resilience.

In other words, the reason that the term "resilience" is inappropriate in the study of deadly diseases, such as Ebola, is that the adjective "deadly" means that people with such diseases will die because there is no cure, i.e., the victims cannot recover to become healthy again. More specifically, one critical component of personal resilience, namely, recuperability, could not be applied to deadly diseases because the patients steadily deteriorate and will not recuperate. Another example may be AIDS, although some researchers might resist the idea that deadly diseases are inappropriate to the study of resilience because people can live with AIDS for variable lengths of time; but the problem is that they do not fully recuperate.

Again, it needs to be stated that this is a definitional position, which does not claim that people with incurable diseases should not be helped. What needs to be clarified is that the help given would be limited by the fact that the disease is not curable. The victims of such diseases can be helped to cope with those illnesses for varying periods of time, but until a physiological cure is discovered, researchers, like nurses, can only look for ways to ease the victims' trauma and/or to accept their fate. Thus, the essential personal resilience dimension of *recuperability* would not apply in the physiological or in the psychological (cognitive) sense, which suggests that research on personal resilience would, theoretically, technically, and ultimately be frustrated by incurable *deadly* diseases.

A Short, Four-Part Measure of Personal Resilience

Having defined and distinguished personal resilience as a multidimensional construct, in order to test the theory the four components need to have measures. Although many measures of resilience already exist, they have weaknesses that should be mentioned for comparison with the new four-component measure. One drawback of earlier measures is that they were one-dimensional (Campbell-Sills & Stein, 2007), which means that they cannot assess the four domains of adult personal resilience.

Another problem is that the early scales included factors that were *not* measures of *personal* resilience. For example, they used measures such as post-traumatic stress as a substitute for resilience (see Bonanno, Rennicke, & Dekel, 2005). Other criticisms made against many of the existing scales are that they have doubtful validity and/or that they have unstable factor structures (more criticisms may be found elsewhere, e.g., see Ahern, Kiehl, Sole, & Byers, 2006; Kumpfer, 1999).

Because of problems with the earlier measures, it has been argued (Luthar & Cushing, 1999) that there is an inconsistency in how personal resilience has been defined and used, which resulted in a need for a more appropriate measure.

A breakthrough in developing a valid adult personal resilience scale was made in a previous study (Wei & Taormina, 2014), with 10 items for each of the four dimensions. All the items were based in a thorough analysis of the theoretical literature, and all four resilience scales had good validity and reliability. This yielded 40 items to measure the four dimensions, but respondents stated that the survey was too long. Consequently, as the 40 items used so much of the questionnaire, it became necessary to reduce the number of items while also maintaining the four important dimensions of personal resilience. This was achieved by selecting the most salient items and condensing their wording to focus on the most relevant traits of each dimension. The 20 items for the four new subscales are shown in Table 1.

Table 1

The 20 Items for the Four 5-Item Subscales of Adult Personal Resilience

Determination
1. Once I set a goal, I am determined to achieve it
2. I persevere at the things I decide, despite difficulties
3. Being determined is an important part of my character
4. I keep trying for the things I want until I reach them
5. It is in my nature to be persevering

Endurance
1. I am able to live through difficult times
2. I can withstand difficult situations
3. I can endure the problems that life brings
4. I can survive even the hardest of times
5. I can endure even when I am attacked

Adaptability
1. I have the ability to adapt to difficult situations
2. I can change to fit into many kinds of circumstances
3. I can find ways to adapt to unexpected conditions
4. I am well able to adjust to problems that confront me
5. I am very flexible when my environment changes

Recuperability
1. I recuperate even from things that hit me hard
2. I recover from any misfortune that happens to me
3. I am able to bounce back from any kind of adversity
4. I always resume my life regardless of the type of setback
5. I can recover from any type of problem

Psychometric Properties of the New Measure

Regarding the validity of the items, they may be considered to have content validity because they were derived from a previous personal resilience measure with demonstrated validity and reliability, i.e., the items had all been constructed based on existing resilience theories (but it should be noted that no items from other theories were used in either the preliminary or in the present new version of the measure). Likewise, in the earlier paper, the convergent and divergent validities of the selected items had also been tested with similar and dissimilar variables, respectively, and they had excellent correlations in their relevant directions (i.e., positive for convergence and negative for divergence), and thus passed those validity tests.

For the shortened subscales, another validity test and tests of their reliabilities were run. The added validity test was the "known-groups" method for concurrent validity. That is, two groups of people who were already known to differ on their levels of resilience were selected for comparison of their scores on the resilience subscales. Thus, only two selection criteria were required, i.e., that one group must possess resilient traits (in this case, they succeeded in a stressful career), and the other group must not possess such traits (i.e., they "gave up" searching for a career because giving up is considered antithetical to being resilient).

The "high" group was 30 (15 male, 15 female) long-term medical workers who had been repeatedly exposed to many types of disease and illnesses but endured and were successful in their careers. These people were recommended by hospital administrators, and were approached during their break times. The "low" group was 30 (15 male, 15 female) persons in rural villages who had never tried to establish a career, accepted being unemployed and living off government welfare, and had given up on even trying to find work. These individuals were introduced by community leaders in rural villages. It should be noted that American Psychological Association research guidelines were followed to protect all the respondents' rights to anonymity and confidentiality, as well as their right to refuse to participate. Also, only 30 members of each group were required for running the t-tests (Nunnally, 1978). The results of the tests are shown in Table 2.

Table 2

Results of t-Tests Between Professionals and the Unemployed on the Four Resilience Dimensions, With the Cronbach Alpha Reliabilities of the Scales

Resilience Dimension	Professionals		Unemployed		t-value (*df* = 58)	*p*	Alpha Reliability
	M	*SD*	*M*	*SD*			
Determination	4.31	0.37	2.77	0.34	19.07	< .001	.83
Endurance	4.41	0.38	2.89	0.43	20.05	< .001	.76
Adaptability	4.29	0.47	2.80	0.48	20.96	< .001	.78
Recuperability	4.48	0.39	2.98	0.32	23.86	< .001	.77

Note. Mean values for the adult personal resilience scales were scored using a 5-point measure that ranged from 1 = strongly disagree (low) to 5 = strongly agree (high).

The t-test results confirmed that the professionals scored higher than the unemployed on all four measures, and all values were significant at the $p < .001$ level, confirming the validities of the four resilience subscales. Also, the reliabilities of the new subscales were tested by the Cronbach Alpha measure, with all values ranging from .76 to .83, which all exceeded the minimum value of .70 for good reliability (according to Nunnally, 1978).

Implications

Implications for Resilience Theory

This new theory of adult personal resilience has implications for the conceptualization of what resilience is, for future research in applied settings, as well as for practice. Regarding theory, this study addressed several gaps in the theory of adult personal resilience by clarifying the concept and demonstrating that personal resilience is a four-dimensional construct. It further named and operationally defined each dimension, elucidated on the nature of the four new dimensions, and thereby resolved some issues that confounded theorists and researchers about adult personal resilience.

In particular, from a theoretical perspective, the previous view of personal resilience as being one-dimensional left researchers with the difficult questions of what, exactly, resilience was and why its relation to other measures varied so much. The newly identified four domains of Determination, Endurance, Adaptability, and Recuperability can now help researchers gain a clearer picture of how adult personal resilience relates to other variables, and why some individuals are more resilient than others in response to different environmental and/or interpersonal stressors. This lays the foundation for applied research, as well as for practice in clinical settings.

Thus, identification of the four dimensions helps to explain why some people are more able to recover from certain types of problems while other people are not. That is, every adult can now be perceived as having an individual "resilience profile," namely, each person would have a different combination of (low to high) levels on the four resilience components. For example, if resilience is considered to have only one dimension, a therapist would not know the reason for different outcomes when some individuals respond well, while others do not respond well, to particular treatments. However, when every person has a four-dimensional profile, the therapist will be able to see that people who respond well have high levels on some dimensions, while people who do not respond well have low levels on those dimensions. Consequently, this new approach to adult personal resilience could reveal which aspects of an individual's personal resilience need to be addressed.

Implications for Future Research and Practice

Whereas the four new dimensions add so much to the theory of adult personal resilience, there are a number of ways that the theory and the measures can be applied throughout society. Some such applications follow. First, in research, to gain a better understanding of the psychology of resilience, the new measures could be used with personality variables, such as personal integrity, emotional intelligence, or gregariousness (to mention just a few). For example, an individual with a strongly integrated personality is a person who lives according to the values of personal decency, generosity, kindness, and, especially, honesty, all of which are often challenged in one's daily life. That is, a person who maintains his or her integrity over many years must be one who is determined to live by his or her values, and determination is one of the critical components of personal resilience.

Another application for using the new measure could be in organizational behavior. For research in this area, there are some variables that could offer help to both employees and organizations. That is, the new four-part measure can be used to assess the employees' strong or weak dimensions of resilience, which would advise managers on which dimensions to strengthen. For example, managers could increase their employees' affective commitment to enable the employees to be more resilient to setbacks. In particular, organizational support, which refers to positive treatment of employees by their managers, can increase affective commitment and decrease turnover (Rhoades, Eisenberger, & Armeli, 2001), suggesting that managers could strengthen the employees' determination by increasing their commitment to succeed. In other words, support from managers would have a beneficial effect on the employees' resilience, yielding a more enthusiastic work force, which, in turn, would benefit the entire organization.

A further, very interesting research application would be to use the new resilience measure to compare the adult resilience levels in different cultures. For example, in some research, Chinese people have been found to be quite resilient to trauma (Chang & Taormina, 2011), which provides a basis for comparing Chinese people with people from other ethnic groups. Any differences found could derive from different cultural bases because culture, which reflects the values, beliefs, attitudes, and behaviors held by people in a society (see Taormina & Gao, 2010, p. 1199), might be able to foster resilience. That is, resilience may be related to a society's cultural values and

beliefs. Thus, from an applied perspective, knowing which values are associated with resilience might help increase the resilience of people in other societies, if the other societies choose to promote those values.

Additionally, in practice, as personal profiles reveal specific strengths and weaknesses, the new theory can apply to counseling and clinical areas. For example, hospital administrators would be able to improve their nurses' resilience by knowing which of the nurses' personal resilience components are strong and which are weak. But beyond the application to nurses, counselors and psychotherapists could use the new measure to assess patient profiles, which would indicate the resilience dimensions that need to improve. For example, a patient may have strong Determination, but be weak on one or more of the other three dimensions.

The previous example provides yet another important area for future research, which would be to develop specific ways to improve each of the four dimensions of personal resilience. It should be remembered that the *treatments* administered by counselors or doctors that are intended to increase the level of a person's resilience come from sources that are external to the person, while the actual level of personal resilience is internal to the person.

As examples, for people with low levels of Determination, providing training, particularly professional training that increases a person's self-confidence (see Taormina & Law, 2000), could help the person have greater Determination. Also, for people with low levels of Endurance (in various settings, e.g., groups and organizations), people are more likely to accept and endure imposed changes on their lives when they are told the reasons for those changes. That is, as Vroom and Jago (1974) noted, when employees are given information about a problem, they will understand it better and be more likely to accept the changes that are imposed to deal with the problem. Therefore, to strengthen people's endurance to life's vicissitudes in general, it would be beneficial to increase their understanding of the world and the way it works.

Also, for people with low levels of Adaptability, the idea of "Openness" from the Big-5 personality theory (McCrae & Costa, 1987) is relevant. Openness refers to being interested in new and different ideas, such that being more open tends to make a person more adaptable; and ways to increase openness include fostering an eagerness to learn, and seeing new frontiers as challenges rather than obstacles (Fielstra, 1958). For people with low levels of Recuperability, previous research has found that both physical and social factors can help people to be more resilient. For example, Chang and Taormina (2011) found that good medical care and overall physical wellness are strongly and positively related to resilience. They also found that having good relationships with other people, and with the community in general, are likewise strongly and positively related to increased resilience.

Conclusion

In conclusion, this new theory of adult personal resilience has confirmed that resilience is a multidimensional construct, and identified the four dimensions that compose the construct. The dimensions are Determination, Endurance, Adaptability, and Recuperability, all of which are internal characteristics of human beings. Whereas every person possesses the four components to some degree, this theory suggests that personal resilience can be increased by strengthening any one or all of these characteristics of adult personal resilience.

This is a noteworthy addition to resilience theory in two ways. First, it provided new knowledge about what personal resilience is by identifying the four components; and second, it is proactive. In other words, previous approaches have been post hoc because they only try to overcome the negative effects of problems *after* they have occurred. The present theory, on the other hand, is a positive psychology approach because it is *proactive* in the sense of

identifying the specific dimensions of resilience, and thereby revealing what makes people more resilient. That is, by knowing which factors need to be strengthened, this theory has the advantage of identifying ways that could make people more resilient before they experience difficulties, and thus can prevent problems from occurring.

This advancement in the theory of personal resilience should help both research and practice. Some examples were noted in the previous section of this article regarding implications for practice, including creating resilience profiles for patients, which, in turn, can help determine ways to increase the four components of adult personal resilience, namely, Determination, Endurance, Adaptability, and Recuperability.

Regarding future empirical research using the new measure of adult personal resilience, the four dimensions can give researchers insight on how to advance our understanding of resilience. That is, the four subscales provide the specific measures for direct investigation of the level (or extent) of personal resilience for any given adult individual. Also, the four dimensions can be used with a variety of variables that researchers may wish to investigate in order to ascertain which variables might have the ability to increase personal resilience; while also examining other variables (such as favorable life outcomes) that might be more auspicious when people have higher levels of adult personal resilience.

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