

# THE MEDIATING ROLE OF POST TRAUMATIC GROWTH IN PREDICTING GENERALIZED GRATITUDE OF RESILIENT PWDs

Roselo V. Bautista<sup>1,a</sup>, Patrick Joseph M. Lapuz<sup>1,b</sup>, Renz Louis T. Montano<sup>1,c</sup>, and Louie Benedict R. Ignacio<sup>2,d</sup>

<sup>1</sup>Bachelor of Science in Psychology, College of Liberal Arts and Sciences

<sup>2</sup>Faculty Member, Psychology Program, College of Liberal Arts and Sciences

<sup>a</sup>roselo.bautista@letran.edu.ph, <sup>b</sup>patrickjoseph.lapuz@letran.edu.ph, <sup>c</sup>renzlouis.montano@letran.edu.ph,

<sup>d</sup>louiebenedict.ignacio@letran.edu.ph

## ABSTRACT

Disability affects the daily living of an individual including relationship, school and work. Psychological health of a person with disability can affect their perception or experience of disability. The question in this study is if PWD's still experience generalized gratitude despite of their status in life as PWD. The study investigated the Mediating role of Posttraumatic growth in predicting generalized gratitude of resilient PWDs. In the context of the present study, resilience is experienced after a negative incident in the individual's life. This becomes a spring board for the understanding the process of experiencing gratitude through resilience. The researchers have two hypotheses in the study; first is resilience predicts generalized gratitude and the second is posttraumatic growth mediates the relationship of resilience and generalized gratitude. Mediation analysis was used in understanding the relationship of resilience and gratitude. Seventy-eight people who have acquired disability participated in the study. Twenty-three (23) participants were gathered from Bahay Biyaya and 45 participants were from Tahanang Walang Hagdanan Inc., 1 from Sinag Tala and 9 respondents were not associated with any foundation. The respondents were asked to complete the questionnaire that contains the Brief Resilience Scale (BRS), followed by the Posttraumatic Growth Inventory (PTGI), and then finally the GQ-6 Short Form (GQ-6). Results show that resilience does predict gratitude and PTG does mediate the relationship of the two. Thus, supporting the hypotheses, the present study shows that resilience does affect the PWDs feeling grateful despite their negative experiences. Resilience is not the only thing that keeps them feel grateful but also growth and finding meaning to their experiences following disability. This proves theoretically that the Dynamic Model of Adjustment of Individuals Living with Chronic Disease or Disability how Filipino PWD's shows gratitude after traumatic experience.

**Keywords:** Disability, Resilience, Posttraumatic Growth, Gratitude

## INTRODUCTION

World Health Organization defined disability as a restriction in or lack of ability to perform an activity because of impairment. This affects the daily living of an individual including relationship, school and work. It also restricts a person's physical activity which is referred to as "physical disability." These individuals have difficulty performing activities of daily living (ADLs) and instrumental activities of daily living (IADLs). ADLs are activities that are basic, for an instance feeding oneself and bathing while IADLs are less basic tasks necessary for living just like paying bills. (Lenze, Martire, Rollman and Schulz, 2001).

In the Global Burden of Disease Study, disability-adjusted life year (DALY) was considered as a primary indicator of the burden of premature mortality and disability. DALY is the total amount of years in one's life lost due to premature mortality or Years of Life Lost (YLLs) and years lived with disability (YLD) adjusted for severity. They found that 90% of global burden of disease occurred in developing parts of the world wherein only 10% is spent on healthcare. Examples of these places are sub-Saharan Africa and India. Lower respiratory infections, diarrhoeal diseases, and perinatal disorders were identified as the top three causes of DALY (Murray and Lopez, 1997).

Psychological health plays an important factor in physical disability. At the same time, psychological factors affect one's perception or experience of disability. In the study of Crombez, Vlaeyen, Heuts and Lysens (1999), it was discovered that pain-related fear is more crippling than disability itself and that it is related to poor behavioral performance. Depression was identified as a higher disability risk compared to other chronic conditions (Broadhead, Blazer, George, and Tse, 1990; Penninx, Leveille, Ferrucci, van Eijk, and Guralnik, 1999). Depression was also responsible for the reduced physical activity and fewer social interactions. Moreover, the risk of having emotional distress is two to four times greater among disabled or chronically ill compared to nondisabled persons (Turner and Beiser, 1990). Psychological characteristics, health beliefs, and social influence are important factors to consider in the impact of disease and disability (Simmonds, Kumar, and Lechelt, 1996).

Acquisition of disability results to a sudden change of lifestyle. This sudden change could result from a traumatic incident that the individual did not see coming. In the present study, the researchers adapted Elliot, Kurylo and Rivera's theory that posttraumatic growth mediates the relationship of primary characteristics of the disabled person and well-being. By definition, PTG is the experience of growth

arising from the struggle with trauma. It was also regarded as “Transformational Coping” which benefits the person in the process of adapting to stress or trauma. Following a traumatic incident, individuals tend to appreciate life more as they became aware of their mortality (Tedeschi and Calhoun, 1995, 1998 and 1999).

In the Philippines, about 193 elective amputations of patients ranging from 21 – 60 years old is performed annually at Philippine General Hospital. Eighty two percent of this is amputation in the lower extremities. Four out of ten patients were referred to have lower limbs prosthesis fabrication. The report of the Asian Development Bank in 2005 showed that only 122 of 1, 494 disabled individuals have prostheses. In the year 2007 to 2009, Walking Free Training Program served as a mobility training for the disabled for patients whose prosthetics were fabricated and declared “prosthesis ready” (Bundoc, 2010).

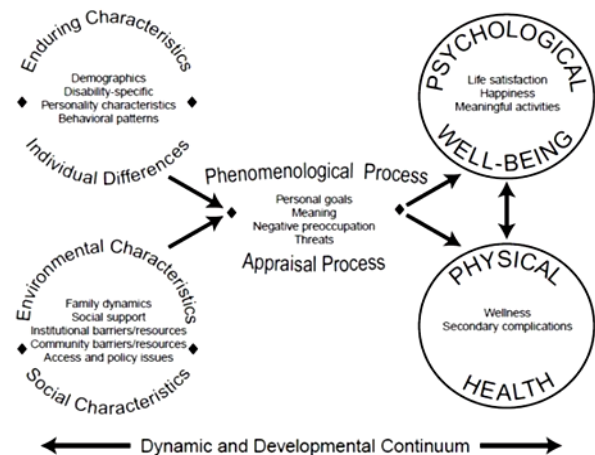
Research about the psychological state of Filipino PWDs was not given importance. Several studies focused on demographics of Filipino PWDs. One study shows that the mean level of income is low and poorer than non-disabled citizens (Mori and Yamagata, 2009; Albert, Mori, Reyes, Tabuga and Yamagata, 2010). Despite of the privileges that Filipino PWDs have, many are not participating in it because of lack of awareness and requirements for their PWD IDs. The higher the education attainment of the individual is and the younger they are the greater chance that he/she will be aware of these privileges (Tabuga, 2013). Hence, there is a need for a psychological study of the state of Filipino PWDs.

Some studies revealed that people with disabilities tend to be resilient through their experiences. According to Elliot, Kurylo and Rivera (2002), the person experiences positive growth (includes posttraumatic growth), which gives new meaning to their experiences. However, there is still a question on what comes next. No study has been done to show the long term effect of the experience of positive growth that root out from resilience. In the present study, the researchers assume that there is a generalized gratitude that will develop through resilience of PWD.

Generalized gratitude is regarded as the broader of the two types of gratitude (Lambert, Graham and Fincham, 2009). It is the appreciation of all the gifts in life. It was also defined as state of thankfulness (Steindl-Rast, 2004). Generalized gratitude includes the concept of personal gratitude which is identical with Robert’s (2004) definition of gratitude. Benefit-triggered gratitude is the other type which is more interpersonal.

The purpose of the present study is to determine if Filipino Persons with Disability experience gratitude despite their present disability. Specifically, the present study would explore if the model by Elliot, Kurylo and Rivera (2002) can also be applied in understanding the adjustment process of Filipino PWDs.

### Theoretical Framework



**Figure 1. Dynamic Model of Adjustment of Individuals Living with Chronic Disease or Disability**

Elliott, Kurylo and Rivera (2002) are the proponents of the Dynamic Model of Adjustment of Individuals Living with Chronic Disease or Disability, integrate different models and theories and review several basic tenets in rehabilitation psychology to appreciate the potential of positive growth. It was modified by Elliott and Warren in 2007 by putting the specific parts of the five components in the model itself. In Elliot’s (2005) review of Wrights’ book *Physical Disability: A Psychological Approach*, it was observed that disability can be accepted as a surmountable challenge instead of a being succumb into it (tragic undoing). Transactional models support these claims as they show interplay between the individual and the environment in understanding stress and coping processes (Lazarus and Folkman, 1984). However, though models exist in explaining the phenomenon, researchers have failed to explore the development that occurred within the person. Examples of these limitations include failure to study dynamic growth that occurs as one ages (Trieschmann, 1987) and cognitive adaptations (Rape, Bush, and Slavin, 1992). Elliot, Kurylo and Rivera’s model encompasses both individual and social factors in understanding the emergence of positive growth.

The dynamic and developmental continuum model consisted of five portions, Enduring characteristics and Individual Differences, Social and Environmental Characteristics, Phenomenological and Appraisal Processes, Psychological Well-being, and Physical health. The five are broad based domains in the concept of adjustment following disability. The individual’s characteristics and the social environment are considered as the primary characteristics. These two influence the phenomenological and appraisal processes that comprise positive growth. Positive growth predicts psychological health (e.g. well-being) and physical health outcomes.

The Enduring Characteristics and Individual Differences are composed of demographic characteristics, disability-related characteristics (e.g level of injury and pain), predisability behavioral

patterns, and personality characteristics. Demographics characteristics consider the influence of race, gender, age and socio economic differences in understanding the individual's adjustment (Elliott and Uswatte, 2000; Fine and Asch, 1988). These factors are at the individual level but at the same time overlaps with the Social and Environmental Characteristics component of the model. Disability-related characteristics include the severity of one's disability. For example, research show that presence of chronic pain can cause distress to the individual. Predisability behavior patterns refer to the factors in the individual's health prior to the disability. People who are physically and socially compromised prior to disability may find it difficult to adjust following disability. One example is alcoholism and substance abuse which leads to injury (Bombardier, 2000). Personality characteristics include the psychological constructs that are related to coping. Having internal locus of control, for example, report less distress. (Frank, Umlauf, Wonderlich, Ashkanazi, Buckelew, and Elliot, 1987 as cited in Elliot et al., 2002).

The Social and Environmental Characteristics domain encompasses the role of significant others, the environment, social support, and others. The care giving roles that family members fulfill affect the PWDs psychological and physical adjustment. Social support is fluid in nature which includes various types of assistance, such as emotional assistance, which complements coping (McColl, Lei, and Skinner, 1995). Also, this domain includes social barriers which include potential of embarrassment in situations and negative stereotypes.

Phenomenological and Appraisal Processes have been utilized in understanding the manifestation of positive growth within the individual. Studies have shifted focus from disability to the person's perceptions (Williamson, 1998). Elliot et al. have put Phenomenological and Appraisal Processes in the center of the model because of its importance in understanding the individual's interpretation and evaluation of the situation. It has a considerable influence on subsequent adjustment. These processes explain why the person, even though they are distressed, exhibit coping (Frank et al., 1987).

Psychological and Physical Health compose the optimal adjustment of PWDs. Psychological health was traditionally assessed by measuring the absence of anxiety, distress, depression, impairment and other negative indicators. It can also be assessed by positive indicators like functioning well again which constitutes psychological well-being. Measures such as Satisfaction With Life Scale (Diener, Emmons, Larsen, and Griffin, 1985) can measure positive growth in the face of personal change.

In the present study, the researchers identify resilience as the independent variable. Resilience is an individual characteristic and at the same time a product of the social factor that contribute to the individual's coping. Since the study is about PWDs response to critical incident, Posttraumatic growth will be considered as the mediating factor. The expected end product of the individual's resilience is generalized gratitude.

As PWDs display resilience, they view disability as a surmountable obstacle. Such positive response to adversities leads to feelings of thankfulness. To explain the relationship between the two, the present study will assess the mediating role of Posttraumatic growth which is one indicator of positive growth.

## Literature Review

According to Philippine Statistics Authority, about 16 of a thousand Filipinos have disabilities. One point fifty-seven percent of the 92.1 Million citizens are Persons with Disabilities (PWDs) according to the census in 2010. The age group with the highest percentage is 15 – 49 which constitutes 40% of the total number. However, according to the NSO, disability among children and youth increase by 10% every five years (Garcia, 2014). This means that even though ages 15 – 49 has the highest percentage, children and youth with disability continue to grow in numbers over time.

Disability may be caused by trauma, which in medical field means physical injury which could be sudden or unexpected, or it may also be caused by diseases. Impairment of a specific part of the body can result to a psychological repercussion that causes individuals to manifest a variety of depressive state and behavioral problems following the onset of physical disability (Lawrence, Fauerbach, and Thombs, 2006; Turner, Lloyd, and Taylor, 2006).

Resilience, not recovery, is a common response to trauma. It is characterized as a stable trajectory of healthy functioning across time. However, it does not necessarily mean absence of struggle. But nonetheless resilient individuals tend to function effectively near or at their normal levels (Bonanno, 2005).

One of the products of resilience is positive growth. The individual's perception of critical events contributes to emergence of positive growth following the disability. It is the resilient reaction to negative events (Mohr, Dick, Russo, Pinn, Boudewyn, Likosky, and Goodkin, 1999). This allows the individual to reinterpret the event to be able to perceive them in a positive way. This will eventually lead to well-being and other positive emotions which help the individuals see critical events as less disturbing and give positive meaning to it.

Appreciation of life is a key factor in determining a person's well-being. Gratitude is a positive emotion experienced often in our daily discourse. It is a positive emotion felt by an individual when he has intentionally given, or attempted to give, something of value (McCollough and Tsang, 2004). It was believed as an essential part of building and preserving interpersonal relationships that it had been labeled as "not only the best, but the parent of all other virtues" (Cicero, 1851, p. 139 as cited in Emmons and Shelton, 2002). Moreover, it was also known as the "sentiment which most immediately and directly prompts us to reward."

The present study aims to describe the how resilience following disability plays a role in present life gratefulness. Despite of the outcome of their disability they still manage to go on with their life.

How do they appreciate of what they have become? Are these people still grateful with their lives despite of their disability? Does posttraumatic growth explain how resilience leads to feelings of gratefulness?

### Disability

Disability has been defined by the World Health Organization as restriction that hinders the individual to perform a specific task. Disability has been separated and distinct from the disease severity because these two constructs were being related to each other but they have low correlation on their idea (Lenze et al., 2001). However, it does not mean that disease severity can't lead to disability.

### Resilience

Resilience is defined as an ability to adapt risk, adversity and negative experiences in a positive way (Dunn, Uswatte, and Elliott 2009). Most people that undergo to a severe stress or coping from trauma experience resilience. Resilience refers to the ability to refer in a stable equilibrium in the face of severe stressor (Bonanno, 2004). It is also regarded as "a pattern of behavior and functioning indicative of positive adaptation in the context of significant risk or adversity" (Keyes, 2004, p. 224).

The characteristics of resilience include hardiness, optimism, self-enhancement, repressive coping, positive affect, and a sense of coherence (Agaibi and Wilson, 2005; Bonanno, 2004; Tedeschi and Calhoun, 2004). There is already an existing relationship between resilience and gratitude. An example of which is the study of Dwiwardani et al (2014) which argued that resilience, or the ability to regulate stressors in the environment, may actually facilitate the development of virtuous characteristics and the adaptive behaviors associated with such characteristics such as gratitude. The affirmation of Dwiwardani et al states that an individual's capability to exhibit or show gratitude lies in his/her ability to be resilient.

In recovery, there is a manifestation of threshold or subthreshold psychopathology. One example of this is the experience of having PTSD following a traumatic situation. Other than that, recovering individuals experience transient perturbations in normal functioning. On the other hand, resilience is more than absence of psychopathology. Resilient individuals were the ones who were able to maintain a state of equilibrium and normal psychological functioning following a disruptive situation such as death, violence and other life-threatening situations (Bonanno, 2004). The ability to sustain trauma without reporting PTSD is also an example of resilience (Bonanno, 2004; Lepore and Revenson, 2006).

Resilience is not limited only to the individual who experiences negative events. It could also extend to the families. One example of a situation wherein family resilience is exhibited is living with a seriously ill family member. According to Rolland (1994), the tasks of the family includes creating a meaning for the condition that preserves a sense of

mastery, grieving the loss of the illness family identity, going through short-term crisis reorganization, and developing flexibility while anticipating uncertain and possible threatened loss.

Resilience is one of the characteristics embedded to a Filipino. Their traits as being happy and optimistic help them to overcome adversities. The resilience of Filipinos has been observed for years one of that event is the eruption of Mt. Pinatubo. According to Climaco Tadem (2009) despite the risk in staying in their homes many villagers declined to permanently transfer to their designated government resettlement sites. Their attachment to the lands and houses was strong and they believed that the disaster would pass and the damages to their crop fields would be alterable.

Accepting lifetime impairment is one of the challenges of people with physical disability face. People living with disability differ in the way they react to traumatic incidents. Enduring characteristics is described as demographic characteristics, disability-related characteristics, predisability behavioral patterns, and personality characteristics.

Among people who experienced disturbing events, pre-trauma factors are as important as post-trauma factors. In the study of Tolin and Foa (2006), they conducted a meta-analysis of studies involving sex-specific risks of potentially traumatic event (PTEs) and Posttraumatic stress disorder. They found that women are more likely than men and boys to develop PTSD regardless of study, population, type of assessment. However, men are more likely to be exposed to traumatic events and are more likely to report a potentially traumatic event (PTEs).

Based on the study about poststroke of Filipino elderly with residual Paralysis (De Guzman, et. al, 2012) shows that resilience is viewed as a result of a condition and it is within the Filipino culture to find meaning and well-being in faith and spirituality to express their reservations and anxieties. This becomes a coping mechanism in both physical and spiritual aspects that help them to regain sense of control in their lives.

Developmental psychologist also gave emphasis to protective factors like ego-resilience and the presence of supportive relationship. They found that these factors lead to healthy trajectories for children who have been through unfavorable life circumstances (Garmezy, 1991 as cited in Bonanno, 2005). Furthermore, socioeconomic positions predict vulnerability to disabilities. Gjonca, Tabassum, Breeze (2009) found that both men and women who possessed the highest level of wealth, education and social class had the lowest disability rates. In addition, low socioeconomic position does not only make people vulnerable to acquisition of limitations but also to accumulation of them. Reactions to critical incidents also differ with age. For an instance, children are resilient in response to a corrosive environment while adults are resilient when they experience trauma (Bonanno, 2005).

Social and Environmental Characteristics are as important as individual differences. The definition that fits the present study was

the one stated by Cohen and Syme (1985 as cited in Zimet, G., Dahlem, Zimet, S., and Farley, 1988). They defined it as positive factors that aid in the maintenance of health as well as in disease recovery. In the study of Russell and Taylor (2009), the review of literature shows that Hispanics who lived alone reported higher levels of depression compared to non-disabled. However, the results show that interaction of disability and living alone is not significant. Researchers claimed that people with disability living alone are healthier and are better to deal with day-to-day living. This finding contradicts the assertion of Lenze et al. (2001). Social support is a significant factor for people exposed to distressing situations. This served as a buffer against stress by preventing a situation from being evaluated as stressful or by providing solution to it, minimizing its perceived importance or facilitating healthy behavioral responses (Cohen and Wills, 1985). In the study of Arora, Finney Rutten, Gustafson, Moser and Hawkins (2007), they found that among patients with breast cancer, the social network plays a role in assisting in coping and self-regulation by providing helpful and informational decision making. However, they also found that helpful support decrease over time which was attributed to burnout and/or acquisition of skills over time.

Barth, Schneider and von Känel (2010) identified two types of social support namely “functional support” and “structural support.” Functional social support refers to aid and encouragement provided by the social network while structural social support refers to the characteristic of the social network. Result shows that deficiency of both has a high impact on mortality among people with Coronary Heart Disease.

These previous studies show that social support does not only contribute to coping but also, it helps the individual become more independent over time. They provide assistance in both psychological and physical adjustment. Furthermore, lack or absence of support from the social network could lead to worse conditions. This means that social and environmental characteristics help in the emergence of positive growth following disability.

### **Posttraumatic Growth**

Posttraumatic growth is the development of a positive outlook following trauma (Tedeschi and Calhoun, 2004). Posttraumatic growth is an indicator of positive growth (Elliott et al., 2002). According to Zoellner and Maercker (2006), Posttraumatic growth was referred to with different terms such as finding benefits, stress-related growth, thriving, positive psychological changes, or adverse growth. It is not a result of a minor stressful event but of extremely stressful event (traumatic event).

Tedeschi and Calhoun (1996) identified three broad-domains of Posttraumatic growth. The first domain is perceived changes in self-wherein the person exhibit positive change in the perception of self. This includes feelings of becoming a better person following the experience of trauma (Andreasen and Norris, 1972). Facing trauma leads to self-reliance which influences not only self-evaluation but also

the way difficulties are addressed. Second, a changed sense of relationships with others is experienced. Exposure to trauma made people appreciate the relationship they belong to with significant others realizing that they can be lost. Third, there is a change in philosophy in life. In the study of Joseph, William and Yule (1993), they found that 71% of survivors of a sinking ship have lived life to the fullest and stopped taking it for granted. In Posttraumatic Growth Inventory created by Tedeschi and Calhoun (1996) they have identified the following as factors affecting posttraumatic growth such as relating to others, new possibilities, personal strength, spiritual change and appreciation of life.

In the theory of Elliot, Kurylo and Rivera, positive growth following disability is one of the effects of the resilience on negative experiences. This was found true among people who were diagnosed with multiple sclerosis, early stage breast cancer, living with HIV/AIDS, cancer and lupus (Mohr, et. al, 1999; Sears, Stanton, and Danoff-Burg, 2003; Siegel, Schrimshaw, and Pretter, 2005; Katz, Flasher, Cacciapaglia, and Nelson, 2001). People who are experiencing positive growth tends to change the occurrence to a positive way (Somerfield and McCrae, 2000) looking for a positive meaning as well as reinterpret negative events (Scheier, Weintraub, and Carver, 1986).

Treating PWD as a normal individual becomes a foundation to develop resilience and positive growth. Acquiring disability does not define their social worth (Campbell, Dunn, and Jordan, 2012).

According to Wright (1983) experiencing disability can be regarded a challenge, something to be coped with, or something disastrous to yield. Individual differences can lead people toward optimism or pessimism. Absence of psychological problems (anxiety, depression, and social isolation), enhanced well-being and general satisfaction with their daily life is one of the considerations to create a resilience and positive growth of an individual.

Previous studies have focused on the negative emotion produced by an individual who is suffering from a physical disability. This could be attributed to the prevalence of depressive symptoms and negativity in the life following disability. Moreover, Positive Psychology was just emerging as a movement back then. Thus, previous studies have given little regard to the positive side of having a disability. Life following disability varies as individual differences plays a key factor. According to Dunn, Uswatte and Elliott (2012), happiness after disability is an important consideration. One of the reasons is that happiness following disability can cause immunity to a rehabilitative or therapeutic intervention. This shows individual differences and the other key factors can influence how PWDs interpret their life with disability.

### **Gratitude**

Gratitude has been investigated for years and a large amount of evidence has shown that gratitude is strongly related to all aspects of well-being. Despite having been considered as a normal functioning in terms of philosophical and theological grounds (Emmons and

Crumpler, 2000) gratitude is one of the most unstudied emotion (McCullough, Emmons, and Tsang, 2002; Wood, Joseph, and Linley, 2007).

Gratitude is a psychological state characterized by feelings of sense of wonder, thankfulness, and appreciation for life (Pruyser, 1976). It could be expressed interpersonally, as well as impersonal (nature) and non-human sources. Feeling of gratefulness are beneficial in a way that it enables individuals to relish positive experiences, cope with stressful circumstances and fortify social relationships (Lyubomirsky, Sheldon, and Schkade, 2005). As a trait, it was known to be associated with higher levels of subjective well-being (McCullough et al., 2004), and as a state, the act of counting blessings can increase subjective well-being, positive emotions and health (Emmons and McCullough, 2003; Seligman, Steen, Park, and Peterson, 2005). As an emotion, it has two stages of thought-processing. The first stage is recognizing that one has obtained a positive outcome. And the second stage is recognizing that there is an external source for this positive outcome (Emmons et al., 2003).

The sense of appreciation one might experience in the solitude of a mountain top. Also, it was described as a “celebration of underserved kindness” (Roberts, 2004, p. 284) in which the object of celebration may refer to an object, a person, an activity, a situation or a state. In the study of Watkins, Woodward, Stone and Kolts (2003), they stated that individuals who are grateful have a sense of abundance. They do not feel that they have been deprived in life. Being grateful in all circumstances could influence in the coping mechanisms of people experience stressful situations (Snyder, Lopez, Aspinwall, Fredrickson, Haidt, Keltner, Robitschek, Wehmeyer, and Wrzesniewski, 2002). Moreover, counting blessings during adolescent stage was found to lead to subjective well-being (Froh, Sefick and Emmons, 2008). On the other hand, benefit-triggered gratitude is the more interpersonal type. It is more of “thankful to” rather than “thankful for” (Lambert, Graham and Fincham, 2009).

There are two hypotheses in the present study:

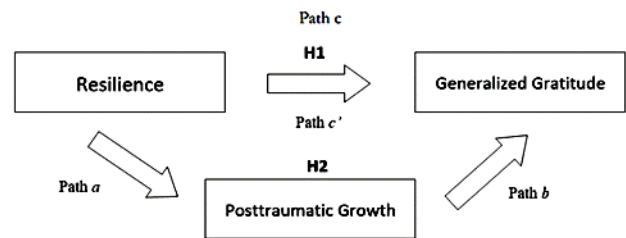
H1: Resilience predicts generalized gratitude.

H2: Posttraumatic growth mediates the relationship of resilience and generalized gratitude.

Having a disability leads to a restricted way of life. This new style of life relies on the presence of significant others. These significant others in the lives of PWDs can help them not only with social support but with their family strengths such as family resilience.

Resilience emerges from the individual and from the social support provided by the family. Generalized gratitude will be investigated as a result of being resilient following a life-determining incident. This study will answer how resilience leads PWDs to exhibit appreciation of their life. The relationship can be further explained by investigating if posttraumatic growth mediated the relationship of the two.

The present study aims to describe how generalized gratitude emerged from being resilient with Posttraumatic growth as mediator.



**Figure 2. Conceptual framework for studying the causal relationship between resilience and generalized gratitude based on the Dynamic Model of Adjustment of Individuals Living with Chronic Disease or Disability**

The researchers will follow this design to answer the two hypotheses of the study. The three components of the design are resilience as independent variable, posttraumatic growth as mediator and generalized gratitude as dependent variable. Resilience has a causal relationship to gratitude as identified by previous studies. Following the model of Elliot, Kurylo, and Rivera, (2002), Posttraumatic growth could be a mediating variable in explaining how resilient individuals can manifest gratitude following disability.

## METHOD

The present study used a quantitative research method in order to investigate the predictive effects of exhibiting resilience among Filipino PWDs. The present study did not analyze the experience of selected respondents but rather it established the importance of the enduring characteristics such as resilience that can be generalized among all Filipino PWDs. There were previous studies that said that resilience is embedded in the Filipino culture in the facing adversities (De Guzman, 2012; Climaco Tadem, 2009). The present study investigated if the Filipino PWDs also displayed resilience as a response to the acquisition of their disability. Explanatory method was used in the study in order to explain if resilience predicts the generalized gratitude of PWDs. Mediation analysis will be employed in understanding the relationship of resilience, positive growth and gratitude.

The present study used purposive sampling as the researchers were looking for Filipino PWDs. Persons who acquire disability in their life (not born with it) were the respondents in the study. The researchers gave three sets of questionnaire that would measure different variables. The researchers coordinated with local foundations such as Bahay Biyaya, Tahanang Walang Hagdanan Inc. and Sinag Tala. The assistance of the representatives from these foundations helped in the screening of the participants. The researchers visited these PWD Homes in November and December 2016 to conduct the data gathering.

The questionnaires provided to the participants were composed of three: Brief Resilience Scale (set A), Posttraumatic Growth Inventory (set B) and Gratitude Questionnaire – Six Item Form (set C). Brief Resilience Scale (BRS) is a six-item scale designed to measure resilience (Smith, Dalen, Wiggins, Tooley, Christopher and Bernard, 2008). It is a 5-point likert scale from 1 = strongly disagree to 5 = strongly agree. Items 2, 4 and 6 are reverse scored. The score is computed by computing for the total. An example question is “I tend to bounce back quickly after hard times.” Its internal consistency ranges from .80 to .91 in the four samples used by the authors in their study. This tool is used to measure the PWDs’ resilience.

Posttraumatic Growth Inventory (PTGI) by Tedeschi and Calhoun, (1996) is 21-item scale that measures the degree of positive change. It is composed of five subscales: Relating to Others, New Possibilities, Personal Strength, Appreciation of Life and Spiritual Change. A sample item is “I am able to do better things with my life.” Although the tool has different subscales, the results can be reported as an overall score by computing for its total. It has a reliability of .90 in the study of the scale authors. This tool is used to measure the PWDs’ degree of posttraumatic growth.

Gratitude Questionnaire-Six (GQ – 6) by McCullough et al., (2002) is a six-item likert scale from 1 (strongly disagree) to 7 (strongly agree). It has an internal consistency of .82. A sample item is “I have so much in life to be thankful for.” The score of the GQ – 6 is acquired by computing for the total. Gratitude Questionnaire – Six Item Form was used to measure the PWDs’ generalized gratitude.

Before the participants answer the questionnaires, they were be provided by an informed consent. Then, the participants were given a series of questionnaires starting from the Brief Resilience Scale (BRS), followed by the Posttraumatic Growth Inventory (PTGI), and then finally the GQ-6 Short Form (GQ-6). These questionnaires were named Set A, Set B and Set C respectively in the present study. Online Survey was also created for participants who were contacted online.

The three questionnaires were translated into Filipino by a language professor. This is followed by back-translation to validate the Filipino version. The reliability of the translated tools are the following: .76 for BRS, .91 for PTGI and .81 for GQ – 6. On the other hand the reliability of the original English questionnaires in the present study are the following: .23 for BRS, .96 for PTGI and .62 for GQ – 6. The demographic data gathered in the present study includes name (optional), age, sex followed by their answers in the three questionnaires.

The data gathered in the present study were encoded in SPSS version 20. Baron and Kenny’s (1986) mediation analysis was followed by the researchers in the results and discussion. The inter-correlation of the three variables was computed before proceeding with the regression analyses. Then, regression analysis was used to know the predictive power of the variables. Paths a and b were analyzed. Simple linear regression was used to analyze results for H1 (Path c). Finally, Sobel test was used to know if the mediator significantly explained the relationship of independent and dependent variable.

The participants in the present study came from three PWD homes: Bahay Biyaya, Tahanang Walang Hagdanan Inc., Sinag Tala. There were also participants who were not affiliated with any foundation who participated through manual survey and online survey.

## RESULTS

Out of 100 target participants the researchers only managed to get 85 participants and 7 answered questionnaires from it was rejected because of random responding. Seventy-eight Filipino persons with disability participated in the present study. Twelve (12) of the 78 respondents answered the English questionnaire while 66 answered the Filipino version. The mean age of the respondents is 44.02. Thirty-four (34) of them are female while 39 are males and 5 of the respondents decided to supply information about their sex. 23 respondents were from Bahay Biyaya, 1 from Sinag Tala, 45 from Tahanang Walang Hagdanan, Inc., 7 answered the online Filipino questionnaire and 2 respondents not associated with any foundation. The disabilities of the respondents vary from blindness, orthopedic disability, and chronic illnesses (e.g. stroke). The respondents were able to answer the three questionnaires namely Brief Resilience Scale (Set A), Posttraumatic Growth Inventory (Set B) and Gratitude Questionnaire – Six Item Form (Set C). The instructions in the manual were followed in interpreting the findings in the present study.

The Brief Resilience Scale by Smith et al. (2008) was answered by 78 respondents. The total was computed to get the resilience scores of the respondents. The mean score for resilience is 3.25 with a standard deviation of 0.07. According to the cutoff scores established by Smith, Eipstein, Ortiz, Christopher and Tooley (2013), this means that Filipino PWDs are averagely resilient.

Tedeschi and Calhoun’s (1996) Posttraumatic Growth Inventory was answered by 78 Persons with Disabilities. The mean of the total scores is 77.15 with a standard deviation of 17.5. This shows that the respondents show average growth (Grubaug, and Resick, 2007). Thirty-two respondents had high degree of growth while only three of them reported low degree of growth with the mean of 22.

Seventy-eight respondents answered the Gratitude Questionnaire – Six Item Form (McCullough et al., 2002). The overall average score is 33.88 with a standard deviation of 7.32. According to the interpretation based from McCullough, M. E., Emmons, R. A., & Tsang, J. (2002), Filipino PWDs are in the 25th percentile of the 1,224 adults who the GQ – 6 in the Spirituality and Health Web Site.

The Baron and Kenny (1986) four-step approached was used in the present study to test the research hypotheses. Figure 3 below shows that paths followed for the step by step analyses.

First the intercorrelations of the three variables were analyzed to establish a relationship between them. For path a, there was a significant relationship between resilience and posttraumatic growth with  $r(76) = .33, p < .01$ . There is also a significant relationship

between PTG and Gratitude (path b) with  $r(76) = .55$ ,  $p < .01$ . Then finally, path c show that there is also a significant positive relationship,  $r(76) = .33$ ,  $p < .01$ . The results were also shown in the table below:

**Table 1: Summary of Intercorrelations of Resilience, Posttraumatic Growth and Gratitude**

Variables	1	2	3
1. Resilience	----	.331*	.331*
2. Posttraumatic Growth	.331*	----	.554*
3. Gratitude	.331*	.554*	----

The correlation of resilience and PTG is significant but low  $r(76) = .33$ ,  $p < .01$ . This is similar to findings of Levine, Hamana-Raz and Solomon (2009). One possible explanation why there is a low positive correlation between resilience and PTG is that resilience can mitigate or lessen the effect of trauma to the individual. Posttraumatic Growth is experienced only with events that are upsetting enough for an individual to engage in meaning making (Tedeschi and Calhoun, 1996). Hence, there is a little need for resilient individuals to engage in meaning making as the effect of trauma has been lessen (Bonanno, Wortman, and Nesse, 2004).

Furthermore, the correlation results shows that there is a significant positive relationship between PTG and gratitude,  $r(76) = .55$ ,  $p < .01$ . A similar finding was found among people with breast cancer (Ruini and Vescovelli, 2013). Gratitude was correlated with posttraumatic growth and well-being. The researchers found that gratitude positively correlates to hedonic well-being and negatively to anxiety, depression and hostility. Lastly, they found that high gratitude individuals show greater levels of PTG.

Following Baron and Kenny's approach, the researcher must establish significant prediction for all paths. Path a shows that resilience significantly predicts posttraumatic growth  $F(1,76) = 9.329$ ,  $p < .05$  with an  $R^2$  of .109. This indicates that for every unit increase in resilience there is a 9.13 unit increase in the participants' PTG. The standard error for a is 2.989.

**Table 2: Regression Analyses**

	B	Std. Error	95% CI	
			Lower Bound	Upper Bound
Path a	9.130	2.989	3.177	15.084
Path c	3.818	1.250	1.329	6.307
Path c'	1.912	1.155	-0.389	4.212
Path b	0.209	0.042	0.125	0.292

The analysis for path c shows that resilience does predict gratitude,  $F(1,76) = 9.336$ ,  $p < .05$  with an  $R^2$  of .109 and  $sc = 1.250$ . Participants' average gratitude increased 3.818 for each point of resilience. This part of the analyses shows that H1 is accepted as shown by the results that resilience does predict generalized gratitude.

Simple regression analysis for path b show that posttraumatic predicts gratitude,  $F(1,76) = 33.691$ ,  $p < .000$  with an  $R^2$  of .307 with  $sbof .040$ . For every one point increase in posttraumatic growth, there

is a .232 increase in gratitude scores. The standard error for b is .042

**Table 3: Sobel Test Results**

		Test Statistic	Std. Error	p-value
a	9.13	2.67306472	0.7924088	0.00751617
B	0.232			
$s_a$	2.989			
$s_b$	0.042			

Lastly, Sobel test was conducted to identify if PTG mediates the relationship of resilience and gratitude. The result showed that the p-value is 0.007 with a standard error of 0.792. This means that PTG significantly explains that gratitude scores were determined by resilience scores with the help of the mediator. In other words, if a person with disability has a high resilience score, the gratitude score should only be high if the individual also had high score in posttraumatic growth.

Regression analysis for path c shows that resilience predicts generalized gratitude. In the present study, The Brief Resilience Scale covers the following in measuring resiliency: tendency to bounce back, ability to make through stressful events, recovering and getting over setbacks in life. Smith, Tooley, Christopher and Kay (2009) stated that the effects of resilience in health-related construct can help in growing interest in studying the construct. One challenge that hinders the full understanding of resilience is its vague definitions. Smith et al. (2010) differentiated the effect of resiliency to health-related measures with other positive characteristics and resources. They explained that resiliency relates to health-related measures better than other positive emotions because of several reasons. First, positive emotions such as optimism, mood-clarity, purpose in life, and spirituality may not be specifically salient to stress. Second, studying resilience involves the process of bouncing back from stress. Hence, studying resilience which is a specific characteristic targeted to stressful events possess a better predictive power in predicting health-related constructs over a broader range of behavior.

As shown by the results, the respondents show appreciation of life even after the experience of a traumatic incident. This shows that resiliency helps in the psychological bounce back of Filipino PWDs in a way that they have achieved well-being after a stressful event. Their present state does not hinder them in feeling grateful towards (1) life-experiences and (2) the society that they belong which are explored using the questions of Gratitude Questionnaire – Six Item Form.

The result of Sobel test shows that PTG acts as the mediator in the relationship of resilience and gratitude. The mediating role of PTG could be explained by the experience of traumatic incident of the Filipino PWDs. The respondents used to be physically normal experienced stress by acquiring a disability. The results show that the PWDs may not only be resilient but they have also engaged in meaning-making in understanding their current status.

The findings in the present study validate the Elliot, Kurylo and Rivera's Dynamic model of adjustment of individuals living with



chronic disease or disability. This shows that enduring characteristics and individual differences do predict psychological well-being mediated by phenomenological and appraisal processes. However, the results show average number on the BRS scores and the GQ – 6 score belong to the 25th percentile. On the other hand, the mean of the total growth reported by PWDs is near the cutoff for high growth with 32 respondents with scores higher than 85. This could be interpreted that Filipino PWDs are averagely resilient to be thankful enough and posttraumatic growth plays an important role in explaining the relationship of the two. According to Levine, Hamana-Raz and Solomon (2009), resilience permits people to emerge with less psychological wounds and relatively unchanged. On the other hand, unlike resilience, growth represents change for the better (Tedeschi and Calhoun, 2004). Hence, the experience of Filipino PWDs may not only be an act of bouncing back to the equilibrium but also experiencing meaning-making and posttraumatic growth. This experience results to their thankfulness in life despite the stress and adversities.

The results showed that Filipinos tend to progress along the continuum by displaying resilience as the primary appraisal. This means that the PWDs tend to respond to the acquisition of their disability in a way that they view it as a surmountable challenge (Dunn and Elliot, 2005). The findings in the present study show that personality characteristics as part of the primary appraisal in Elliot, Kurylo and Rivera's model have predictive power in the PWD's experience of well-being in the end-part of the continuum. But it is not limited to the primary appraisal alone that explains the PWDs' psychological well-being. The result also shows that it is posttraumatic growth that explains the relationship of the resilience and gratitude. This signifies that in the PWDs' progress along the continuum of adjustment, they experienced positive growth as they developed adaptive beliefs and they also experienced changes in their values. The results of the present study prove that the model of adjustment is also observable among Filipino PWDs as (1) they show resilience as a primary response to their disability, (2) they experience posttraumatic growth as an indicator of positive growth and (3) gratitude or greater appreciation of life as representation of achievement of psychological well-being following disability.

The results also show that Filipinos also show resilience in traumatic incidents that will leave a permanent physical damage. Sociologically, Climaco Tadem proved this to be true among Filipinos during the eruption of Mt. Pinatubo. That incident made Filipinos display resilience because of their attachments to their village. Furthermore, they believe that the damage done to their crops was reversible. In the present study, the physical damage may be irreversible but the respondents showed tragic undoing of the event psychologically. Instead of being succumb into their present condition, they chose to display resilience and posttraumatic growth which then lead into psychological well-being. This progress along the Elliot, Kurylo and Rivera's continuum of adjustment made the Filipino PWDs feel grateful about life despite the adversities.

The findings in the present study showed that it is true that disabilities helped PWDs find meaning or to take a more adaptive perspective of life (Wright, 1983). This also showed that they manifest greater appreciation of life (gratitude) as said by Tedeschi, Park and Calhoun, 1998. Thus, the PWDs did not only survive the challenges of being disabled, they also gained a greater resolve in pursuing their goals that rooted from resilience (Snyder, 1998). These findings show that the recovery process did not stop at being resilient to the adversities. Rather, it showed a deeper personal transcendence wherein they realize that there is more to life than their present physical condition.

## DISCUSSION

Regression analysis for path c shows that resilience predicts generalized gratitude. In the present study, The Brief Resilience Scale covers the following in measuring resilience: tendency to bounce back, ability to make through stressful events, recovering and getting over setbacks in life. Smith, Tooley, Christopher and Kay (2009) stated that the effects of resilience in health-related construct can help in growing interest in studying the construct. One challenge that hinders the full understanding of resilience is its vague definitions. Smith et al. (2010) differentiated the effect of resilience to health-related measures with other positive characteristics and resources. They explained that resilience relates to health-related measures better than other positive emotions because of several reasons. First, positive emotions such as optimism, mood-clarity, purpose in life, and spirituality may not be specifically salient to stress. Second, studying resilience involves the process of bouncing back from stress. Hence, studying resilience which is a specific characteristic targeted to stressful events possess a better predictive power in predicting health-related constructs over a broader range of behavior.

As shown in the results, the respondents show appreciation of life even after the experience of a traumatic incident. This shows that resilience helps in the psychological bounce back of Filipino PWDs in a way that they have achieved well-being after a stressful event. Their present state does not hinder them in feeling grateful towards (1) life-experiences and (2) the society that they belong which are explored using the questions of Gratitude Questionnaire – Six Item Form.

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The findings in the present study validate the Elliot, Kurylo and Rivera's (2002) Dynamic model of adjustment of individuals living with chronic disease or disability. This shows that enduring characteristics and individual differences do predict psychological well-being mediated by phenomenological and appraisal processes. However, the

results show average number on the BRS scores and the GQ – 6 score belong to the 25th percentile. On the other hand, the mean of the total growth reported by PWDs are near the cutoff for high growth with 32 respondents with scores higher than 85. This could be interpreted that Filipino PWDs are averagely resilient to be thankful enough and posttraumatic growth plays an important role in explaining the relationship of the two. According to Levine, Hamana-Raz and Solomon (2009), resilience permits people to emerge with less psychological wounds and relatively unchanged. On the other hand, unlike resilience, growth represents change for the better (Tedeschi and Calhoun, 2004). Hence, the experience of Filipino PWDs may not only be an act of bouncing back to the equilibrium but also experiencing meaning-making and posttraumatic growth. This experience results to their gratefulness in life despite the stress and adversities.

The results showed that Filipinos tend to progress along the continuum by displaying resilience as the primary appraisal. This means that the PWDs tend to respond to the acquisition of their disability in a way that they view it as a surmountable challenge (Dunn and Elliot, 2005). The findings in the present study show that personality characteristics as part of the primary appraisal in Elliot, Kurylo and Rivera's model have predictive power in the PWD's experience of well-being in the end-part of the continuum. But it is not limited to the primary appraisal alone that explains the PWDs' psychological well-being. The result also shows that it is posttraumatic growth that explains the relationship of the resilience and gratitude. This signifies that in the PWDs' progress along the continuum of adjustment, they experienced positive growth as they developed adaptive beliefs and they also experienced changes in their values. The results of the present study prove that the model of adjustment is also observable among Filipino PWDs as they show resilience as a primary response to their disability, they experience posttraumatic growth as an indicator of positive growth and gratitude or greater appreciation of life as representation of achievement of psychological well-being following disability.

The results also show that Filipinos also show resilience in traumatic incidents that will leave a permanent physical damage. Sociologically, Climaco Tadem proved this to be true among Filipinos during the eruption of Mt. Pinatubo. That incident made Filipinos display resilience because of their attachments to their village. Furthermore, they believe that the damage done to their crops was reversible. In the present study, the physical damage may be irreversible but the respondents showed tragic undoing of the event psychologically. Instead of being succumb into their present condition, they chose to display resilience and posttraumatic growth which then lead into psychological well-being. This progress along the Elliot, Kurylo and Rivera's continuum of adjustment made the Filipino PWDs feel grateful about life despite the adversities.

The findings in the present study showed that it is true that disabilities helped PWDs find meaning or to take a more adaptive perspective of life (Wright, 1983). This also showed that they manifest greater appreciation of life (gratitude) as said by Tedeschi, Park and

Calhoun, 1998. Thus, the PWDs did not only survive the challenges of being disabled, they also gained a greater resolve in pursuing their goals that rooted from resilience (Snyder, 1998).

## CONCLUSION

Resilience helps PWDs feel thankful despite their negative experiences. Also, it is not resilience alone that helps them feel grateful but also the growth or the meaning making that they experience following the acquisition of their disability. Theoretically, this proves that the Dynamic Model of Adjustment of Individuals Living with Chronic Disease or Disability by Elliot, Kurylo and Rivera (2002) could explain how Filipino PWDs were able to show gratitude after the experience of traumatic incident. The gratitude that they show despite of their condition may be explained by their well-being and life satisfaction. Positive outcomes of the adjustment process that they went through are associated with well-being reports (Szymanski, 2000). There are multiple recommendations in order to help future studies in understanding more about disability. First, future studies could adapt the same model by Elliot, Kurylo and Rivera (2002) with different variables that represent the five portions. The 24 character strengths (Peterson and Seligman, 2004) could be investigated as predictors in a positive continuum of adjustment. Also, the same could be applied with the dependent variable. Gratitude could be replaced with other variables that could serve as a representation of the person's well-being.

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