ADVERSITY QUOTIENT® AND PERCEIVED ACADEMIC STRESS AS PREDICTORS OF THE ACADEMIC PERFORMANCE OF CDU-CRS INTERNSHIP CANDIDATES

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ABSTRACT

The study aimed to investigate the levels of Adversity Quotient® and levels of perceived academic stress as predictors of the academic performance of CDU-CRS Internship Candidates. The study was conducted to one-hundred sixteen (116) internship candidates for the College of Rehabilitative Sciences for the second semester of the academic year 2015-2016 of Cebu Doctors' University. The study was non-experimental and used the descriptive-predictive design. Two (2) questionnaires were utilized, namely: Adversity Quotient Profile® (AQP®) by Stoltz (1997) and Perceived Academic Stress Scale (PASS) by Amit and Abejar (as cited in Amit, 2014) to measure the level of adversity quotient and to measure the level of perceived academic stress, respectively. The midterm grade-point average (GPA) was also obtained to measure the academic performance.

The results showed that majority of the respondents have below average Adversity Quotient® (AQ®) with a frequency of 59 (50.9%). Moderate level of perceived academic stress was prevalent among the respondents with a frequency of 70 (60.3%). Fair academic performance was prevalent among the respondents with a frequency of 54 (46.6%). In terms of the relationship between the levels of AQ® and levels of perceived academic stress, there was a significant but weak correlation between the two variables with an indirect relationship. Lastly, the levels of AQ® and levels of perceived academic stress had a low significant effect on academic performance with 8.3%.

The data gathered concluded that the predictive ability of Adversity Quotient® and perceived academic stress on academic performance is weak. For future studies, the researchers recommend this study to be used as a future reference to support future studies on Adversity Quotient®, perceived academic stress, and academic performance. It is also recommended to explore other variables that could predict academic performance, and affect Adversity Quotient® and perceived academic stress. Other research instruments could also be used to measure perceived academic stress for validation. And lastly, a comparative study on the variables could also be done to various populations.

Chapter 1

THE PROBLEM AND ITS SCOPE

INTRODUCTION

Rationale

Recognized by the American College Health Association (2008) as the ultimate career stopper, stress has been deemed as one of the greatest health challenges to college students. It has been found out that academic stress results in students getting lower grades, dropping out of courses or failing to complete one. Lal (2014) also adds that academic stress is accounted for the variation in academic achievement.

Students encounter various stresses in their endeavors towards career attainment, one of which is the transition period from college to employment (Nelson & Low, 2011, pp.7-8). College students go through a series of adjustments brought about by challenges generated by the new environment (Misra & Castillo, 2004). As fieldwork training is part of the professional education, higher amount of stress is experienced by students from fieldwork experience (Beck & Srvastava, 1991; Mitchell & Kampfe, 1993; Presseller, 1983; Rausch, 1984; Wiemer, 1991, as cited in Garrett & Schkade, 1995).

College is the most stressful educational level especially in the higher years when fieldwork training is expected; it demands higher adaptability from students. Emily and Mary, not their real names, are currently fourth

year Occupational Therapy (OT) students. This is their last year to acquire and develop necessary skills needed for internship or fieldwork training. They are expected to have passing grades on all their paper works, case presentations, return demonstrations, and practical and written examinations. They have numerous class lectures to attend, and different rehabilitation centers to visit in preparation for fieldwork training. They stay up late at night to finish paper works while studying for examinations the next day. They have difficulty accomplishing requirements for different subjects that they hardly have enough time to sleep or relax.

Despite being presented with these stresses, Emily still manages to perform well. In fact, the more challenging the situation gets, the more determined she becomes. Even when she fails an examination, she does her best to pass the next one. She perseveres and strives in school.

Mary, on the other hand, easily gets discouraged whenever she fails an examination. She complains of the many school work she has to do every night. She feels negative most of the time and expresses that she wants to quit school. At one point, she had an emotional outburst due to the mental and physical stress she has been experiencing.

Similar cases can be observed from their classmates and schoolmates from other departments such as Physical Therapy (PT), Respiratory Therapy (RTp), and Speech and Language Pathology (SLP). They are also experiencing the same amount of pressure and stress from

the school work and requirements they have to comply. However, some are still performing well in school despite the stresses, like Emily. While some, like Mary, are observed to have emotional outbursts and express their desires to quit.

The internship candidates from the department of Physical Therapy (PT), Occupational Therapy (OT), Speech and Language Pathology (SLP) and Respiratory Therapy (RTp) were interviewed on their current academic situation and performance.

When the Physical Therapy students were asked about their academic performance this semester, one (1) student said *"I am wary of my grades this semester. I even learned to appreciate having a passing score of 2.9 in my Thera class."* Another student also said, *"I don't even know about my grades anymore. I feel even more pressured with the challenges this semester."* When asked about their experiences this semester they said *"I have too much task to do and paper works to submit. I'm really scared of failing this semester."* They listed case presentations, center rotations, practical exams, projects and long exams as the most stressful things this semester.

When Occupational Therapy students were asked about their experiences this semester, one student verbalized, *"I don't feel motivated anymore. I'm always tired and because I have too much stuff to do, I don't even know where to begin so I always ended up sleeping."* Another student

said, *“I need to do good this time. I have not done well before midterms and it is time for me to make amends if I want to make it to internship.”* Some students stated that they have been experiencing learned-helplessness and has not been doing well in their studies due to the high demands of their work load coming from the case presentations, clinic visits, community-based rehabilitation programs, long exams, and projects.

One (1) Speech and Language Pathology student stated, “*I feel excited as my knowledge and skills would be put to test. I’m also excited of the learnings (professional and personal learnings), through my experience, that comes with internship.”* Students from the department of Respiratory Therapy stated almost similar experiences from the other students. They also identified academic subjects and research, personal issues, the pressure coming from the family and being able to make it to the internship as source of their stress.

Given the aforementioned case and results from the interviews, the researchers are concerned about the ability of the students to cope with the challenges and stresses they will experience. This will especially be crucial since internship is imminent and adds to the pressure. As one of the primary concerns in Occupational Therapy, the researchers consider whether these challenges and stresses will impede their occupational functioning specifically in their academic performance.

With a high level of stress, there is a greater demand for resiliency. A need arises to study and identify whether or not the College of Rehabilitative Sciences internship candidates'perception of stress and their resiliency impacts their academic performance in preparation for fieldwork education.

With this, the researchers ask the following questions: Does the students'reaction to adversity relate to how they perceive stress? Do their reaction to adversity and their perception of stress affect their performance in academics?

Theoretical Background

Stress is a subjective response to events that are perceived as uncontrollable; it is simply a response to the event and not the event itself (Larsen & Buss, 2008, p.589).

According to the Transactional Model of Stress developed by Richard Lazarus (1991, as cited in Larsen & Buss, 2008, p.589), stress can be elicited by perceiving an event as a threat. He identified two cognitive events that could induce stress in a person, the Primary Appraisal and the Secondary Appraisal. The Primary Appraisal is the individual's perception of the challenge and relevance of the event and the control he or she perceives to have over it. The Secondary Appraisal, on the other hand, is the individual's assessment on his or her coping resources and ability to

manage the event. Once these appraisals are perceived as bad, stress is elicited (Larsen & Buss, 2008, p.599).

As stress is a response to a perceived uncontrollable event, academic stress is defined as an emotional health consequence that results from combined academic related demands that exceed the adaptive resources available to an individual (Arthur, 1998; MacGeorge, Samter, & Gilikan, 2005; Tennant, 2002, as cited in Wilks, 2008). It also comprises of course requirements, time management issues, financial burdens, interaction with faculty, personal goals, social activities, adjustment to the campus environment, and lack of support networks (Kariv & Heiman, 2005; Misra 2000; Von Ah, Ebert, Ngamvitroj, Park, & Hang, 2004, as cited in Wilks, 2008). On the other hand, Lal (2014) defines academic stress as a mental distress related to an anticipated frustration linked to academic failure.

Bisht (1989, as cited in Lal, 2014) identified four components of academic stress: academic frustration, academic conflict, academic pressure and academic anxiety. The first component, academic frustration is the state of resentment a student experiences when feeling his or her academic goals are being harmed. Academic conflict, the second component, is the result of two or more response tendencies that are perceived as mismatched or unsuited to academic goals selected. Academic pressure, the third component, is the time and energy demands a student encounters when meeting his or her academic goals. And lastly,

academic anxiety, the last component, refers to the apprehension that some academic goals are harmed.

Students in college generally face different challenges due to multiple contributing factors. College students are expected to have excellent academic performance despite increased academic standards, and conflicting social, cultural, and temporal contexts. Their academic loads are more demanding, both intellectually and emotionally. College students are required to responsibly take note of assignments, class schedules, and test dates. They are expected to be disciplined and motivated to attend classes and are expected to be more adept in interpersonal relations, especially since course requirements entail participation in different classroom discussions and presentations (Tummers, 2013, p.9).

College students are prone to stress since students' load is based more on difficulty to stand out in time-limited tests and examinations especially in an advanced educational organization, such as in a university (Smith, Johal, Wadsworth, Smith & Peters, 2000, as cited in Khan, Altaf, & Kausar, 2013). It has also been found that students in the caring profession experience more stress than other traditional graduate programs (Poison & Nida, 1998, as cited in Dziegielewski, Turnage & Roest-Marti, 2004). This is due to an additional component in their curriculum, clinical training for clinical experience or fieldwork training. Students have to work hard to apply for internship programs for it is only in these programs that they get first-

hand experience in the clinic (Dorff, 1998, as cited in Dziegielewski et al., 2004).

In Cebu Doctors' University – College of Rehabilitative Sciences (CDU-CRS) all four (4) of its programs: Physical Therapy (PT), Occupational Therapy (OT), Respiratory Therapy (RTp), and Speech and Language Pathology (SLP) require participation in specific hours of internship or fieldwork training program in order to complete their respective degree. Just like in any university, CDU-CRS measures students' academic performance in terms of how they meet the university's standards through different written and practical examinations. As stated in the school's student manual, the university makes use of a Grade-Point Average (GPA) system to help measure the over-all performance of the students in a given term. Two GPA scores are given to the students in the course of the term, the mid-term GPA and final GPA. The mid-term GPA is given in the middle of the term as it is used to help the students see how well they've performed along the term. The final GPA is given at the end of the semester and is used to identify if a student fails or pass the semester.

For the internship candidates, fourth year students of the PT, OT, and SLP program, and third year students of the RTp program, the same grading system is applied but the stakes are higher. They are expected to pass all the subjects in their final term with an added fieldwork training to gain necessary skills for internship coupled with the added pressure of doing well to qualify for the internship or fieldwork program. All of this could

be highly stressful to the students and could affect their health and then their academic performance.

The fieldwork experience generates high stresses and pressures on students. And such transition and developmental nature of movement from classroom towards entry-level competence or fieldwork training is not only recognized in OT but also in other disciplines such as psychology (Dodds 1986, as cited in Garrett & Schkade, 1995), physical therapy (Jensen, Shepard, & Hack 1990, as cited in Garrett & Schkade, 1995) and nursing (Bradby 1990, as cited in Garrett & Schkade, 1995). Murff (2006) wrote that as stress affects students' well-being, it also hinders them from fulfilling their educational goals. She added that an early intervention is essential especially in the college curriculum or in the early professional career to help improve an individual's overall performance (Garret 2001, as cited in Murff, 2006).

Academic performance is a term used to indicate how well a student performs in his or her academics. Choi (2005, as cited in York, Gibson & Rankin, 2015) stated that academic performance increases when students are able to comply successfully with course or learning objectives specified by their degree program. Furthermore, York et al. (2015) stated that in terms of academic success, academic performance is viewed in the form of academic achievement, accomplishment of learning objectives, and acquisition of skills and competencies. Furthermore, they explained that academic achievement is the outcome of students' performance and is

almost entirely measured with grades and GPA. They explained that grades and GPA are commonly used to measure academic achievement as they are readily available in most institutions (York et al., 2015).

Different studies have been done to explore factors that affect academic performance of students. And one of the most common factors looked into was stress or academic stress. A link has been identified to exist between stress and health related quality of life of students (Dusselier, Dunn, Wang, Shelley & Whalen 2005; Misra & McKean, 2000, as cited in Khan et al., 2013). Furthermore, Wilks (2008) cited several studies (Arthur, 1998; MacGeorge, Samter, & Gillikan, 2005; Tennant, 2002) which stated that students having difficulty in coping with academic stress are subjected to psycho-social-emotional health consequences. A study on Information Technology Students from Leyte Normal University in Tacloban City, Philippines revealed that academic stress caused students to have more sleepless nights, low performance in class and irritable mood (Mazo, 2015). Khan et al. (2013) found that the higher the level of stress experienced by the students, the lower their academic performance becomes.

On the contrary, different studies by Kumari and Gartia (2012) and Siraj et al. (2014) showed that students who had higher and severe stress were able to attain higher grades and do well in their studies compared to those who experience less stress. Girdano, Everly, and Dusek (1997, p.4) stated that an aversive situation or a stressful event may be a positive opportunity for growth if perceived as such and may cause undesirable

consequences if perceived otherwise. Academic stress can be considered an important factor in the variation of students' academic achievement (Lal, 2014).

To be stress-resistant and to be unsusceptible to adversity is to be resilient. Resiliency is an individual's capacity to undergo stressful events. It is a reintegration process and return to normal functioning after dealing with stressors. It is also the positive outcome from a successful handling of a stressful event. Resiliency is a multidimensional construct that can be used as a key variable in getting good outcomes when dealing with adversity (Lee, Cheung, & Kwong, 2012). Wilks (2008) also wrote that academic stress could be regarded as the cause of varying results in resiliency scores of students.

After 19 years of research, Stoltz (1997) introduced the Adversity Quotient® (AQ®) as a new concept that could help an individual understand how he or she is able to succeed and considers it the science of human resilience. It promises to do four things. First, it can tell how one responds to adverse events and how one can overcome them. Second, it can determine who can prevail and who cannot in their chosen ventures. Third, it can determine who can surpass their expected potential and those who cannot. And lastly, AQ® can identify the ones that will give up and the ones who will succeed (Stoltz, 1997, p.7).

The concept of the Adversity Quotient® (AQ®) is firmly established on three different sciences: Cognitive Psychology, Neurophysiology, and

Psychoneuroimmunology (“Adversity Quotient® (AQ®): An Emerging…”, n.d.). The first building block of AQ®, Cognitive Psychology, explains that an individual’s performance, effectiveness and success are affected by how one responds to adversity. The learned helplessness theory by Seligman (as cited in Nolen, 2015) has been an influential component to the AQ®. The theory proposed to explain that people gave up convinced that they no longer have control over an adverse situation (Nolen, 2015). Neurophysiology, the second building block, illustrates how the brain is theoretically made to form habits. And as the brain is made to shape habits, these habits are alterable. Learned habits towards adversity can be changed reflecting that one’s AQ® can be adjustable to help increase an individual’s performance. Psychoneuroimmunology, the third building block, affirms the link between how one responds to adversity and one’s mental and physical health. The response to adversity impacts immune functions; a weak system of responses can inflict depression (Stoltz, as cited in “Adversity Quotient® (AQ®): An Emerging…”, n.d.).

In addition, AQ® as a measure can be quantified through its four dimensions: control, origin, reach, and endurance. Control reflects the extent to which one can direct what happens next. Origin, the second dimension, is the prospect to which an individual will do something to improve a situation. The third dimension, Reach, is the degree to which one perceives the adversity to affect their life. And lastly, Endurance, the fourth dimension, reflects how an individual perceives the length the adversity will

last. The sum of the scores on each dimension reveals one's AQ®. The scores fall on a continuum from high to low. However, having a high AQ® does not necessarily mean that a person's ability to respond to adversity is exemplary. There will always be room for improvement before success can be achieved (Stoltz, 1997, pp.106-124).

Along with the AQ®, Stoltz (1997) introduced different types of people in relation to their behavior towards the road of success. He classified them as the quitter, the camper, and the climber. The quitters are the ones who do not attempt to use their capacity or exert an effort to succeed. Moreover, the campers are the ones who attempt the road to success but retract and look for an easy route when faced with adversity. Consequently, the climbers, the ideal type, are the ones who are dedicated and committed to success. They are able to thrive despite numerous adversities (Stoltz, 1997, pp.14-17). When a student is faced with difficult ordeals, his or her perception and ability to overcome these challenges become important factors in determining success in school.

The concept of resilience has also never been foreign to Occupational Therapy literature. In fact, one of the profession's governing theories highlights resilience as a pre-requisite for successful occupational performance and satisfaction. The term adaptive capacity, however, is used in place for resilience. The Occupational Adaptation Theory, developed by Schkade and Schultz (1992, as cited in Schultz, 2014, p.528), defines the correlation between occupation and adaptation; it assumes that as a person

becomes more adaptive, he or she becomes more functional. Occupational adaptation develops occupational functioning (Garrett & Schkade, 1995) and a definitive result of a person's adaptability is a successful and meaningful participation in occupation (Schultz, 2014, p.528).

Schultz (2014) wrote that the theory focuses on the process of occupational adaptation which considers three (3) constants: the desire for mastery, the demand for mastery, and the press for mastery. The first constant, the desire for mastery, is represented by the person and internal factors that occur within him. It explains that it is of innate human nature to push over gaining mastery over one's environment. Unique sensorimotor, cognitive, and psychosocial systems are seen in each individual that contribute to the circumstances surrounding his or her occupation (p.530).

On the other hand, the external factors that affect the person represent the second constant, the demand for mastery. As pointed out by the theory, these factors offer the degree to which mastery is needed. The occupational environment directly affects the person and lays out what is expected of him (Schultz, 2014, p.530).

The press for mastery, the third constant, represents the continuous interaction between the person's desire for mastery and the occupational environment's demand for mastery, which in turn produces the occupational challenge. Each person experiences the challenge uniquely and prompts the need for adaptation. The need for adaptation then stimulates an internal

adaptive response which is termed as the occupational response. As explained further in the theory, as long as the person's adaptive capacity is intact, relative mastery is said to be achieved (Schultz, 2014, p.530). Relative mastery, the ideal outcome, is the person's ability to make relatively effective, efficient, and rewarding responses to occupational challenges (Garrett & Schkade, 1995). It is seen as the efficient use of one's time energy and resources and more importantly the satisfaction one gets in achieving the desired goal. And when relative mastery is not achieved, occupational dysfunction develops (Schultz, 2014, p.528).

The occupational adaptation process is evident in major life transitions (Garrett & Schkade, 1995) such as of students transitioning from the school to fieldwork education like the internship candidates. New responsibilities and demands challenges the adaptation capacity of the students and in turn puts them at risk for occupational dysfunction (Schkade, 1991, as cited in Garrett & Schkade, 1995). Smooth and competent transitions will be made by a person who has a well-functioning occupational adaptation capacity. Alternatively, a low functioning adaptive capacity will put a greater risk for occupational dysfunction.

From the theory of Occupational Adaptation, one of the authors of the theory, developed a model to elucidate on students' professional development in terms of fieldwork training. The Occupational Adaptation Model of Professional Development (OAMPD) provides a framework for understanding the occupational functioning of students undergoing

fieldwork education. It also elaborated on the different adaptive responses of the students (Garrett & Schkade, 1995).

Three (3) classes of adaptive response behaviors are available for use by students when faced with occupational challenges: primitive, transitional, and mature which can be observed in aspects of cognitive, sensorimotor and psychosocial activity (Garrett & Schkade, 1995). The first class of behavior, primitive, is described to be hyperstabilized and is evident in the initial response of students to challenges. When task demands are perceived to be too difficult, primitive responses are elicited to help secure the ego threatened by the possibility of failure. These primitive behaviors are demonstrated as denial of requisite knowledge, avoiding or escape behaviors and other signs that indicate an anxiety induced immobility. Schkade (1991, as cited in Garrett & Schkade, 1995) considers the use of primitive behavior as a temporary response is normative as it allows restoration of equilibrium from which movement can occur. However, prolonged use of the primitive response may cause the student to be stuck and be unable to produce an adaptive movement.

Students who feel unstuck but engage in random and high levels of sensorimotor activity are explained to show transitional responses. These responses are considered to be hypermobilized and are manifested by a student's tendency to attend to irrelevant stimuli brought about by the perception that some sort of action is needed given the occupational challenge. These behaviors are observed to be unpurposeful and have no

clear goal direction. Schkade (1991, as cited in Garrett & Schkade, 1995) believes that educators should intervene best when students display this type of adaptive response to help guide the student in making a mature behavioral response.

Mature adaptive response is seen when a student is able to successfully adapt to the challenges of fieldwork education. Students who display this type of behavioral response are said to be in control of the anxiety produced by the possibility of failure and the unpurposeful movements made to prevent failure. It is characterized as blended stability and mobility which is well modulated and goal-directed compared to the other adaptive responses (Garrett & Schkade, 1995).

According to Garrett & Schkade (1995) the model further explains that these classes of behavior should not be seen as a stage of progression to reach a higher adaptive response as students display a mix of the classes of adaptive behaviors when tackling the occupational challenge. Occupational dysfunction is said to occur when premature and transitional adaptive behaviors predominate that they hinder the development of mature behavioral responses.

In light of the theory of Occupational Adaptation and the Occupational Adaptation Model of Professional Development, the transition undergone by the internship candidates from classroom to fieldwork education poses an occupational challenge and provides a risk for

occupational dysfunction (Garrett & Schkade, 1995). Desire for mastery is reflected in the students' drive to complete the degree with their current skills and abilities. The university and other external contributing factors sets out the demand for mastery that is required from the students. And the interaction between the challenges afforded by the university with the students' skills and drive to succeed in their endeavor could be seen as the press for mastery. Relative mastery, or students' effective and efficient response to the different academic challenges is needed to help them perform well academically. Their adaptive responses are put to the test and as academic stress is a common factor that influences their performance, managing stress becomes a challenging task.

According to the American Occupational Therapy Association (AOTA, 2014), stress has long been a concern in Occupational Therapy especially since the goal of Occupational Therapy is to increase participation in daily and meaningful occupations and to promote health. Occupational Therapists have been developing evidence-based interventions and conducting research on coping with stress.

Stallings-Sahler (2007) of the American Occupational Therapy Association (AOTA) writes that as stress is the pervasive societal challenge affecting people, it is the profession's duty to promote the establishment of healthy habits and routines, and increased engagement in meaningful occupations as means to counter the negative effects of stress. The role as stress manager fits as a good role for Occupational Therapists.

Practitioners are trained to be wary of client's environment and are knowledgeable in analyzing different tasks and in grading client's skills to find new ways in doing their activities (AOTA, 2014). Since Occupational Therapists work with different people of different ages they can help address students' problems in managing stress to help improve their participation in school and their academic performance.

As professional education is both theoretical and practical, fieldwork education is the practical component of education wherein professional behavior is greatly developed (Bonello, 2001) and a place where students could hone their problem-solving skills (Nystrom 1986, as cited in Bonello, 2001). Yerxa (1994, (as cited in Bonello, 2001) asserts that a student's perception of his or her profession is greatly influenced by a fieldwork experience.

Viewing the student's Academic Performance in the Adversity Quotient's® and the Occupational Adaptation Model of Professional Development's standpoint, will help illustrate how stress and resiliency affect the Academic Performance of students in preparation for fieldwork education.

Review of Related Studies

Students in college are expected to face multiple challenges of different varieties and severities, such as expectations to pass examinations, to take note of class schedules and exam dates, etc. In turn,

college students are prone to stress, according to Khan et al. (2013). College students are more prone to stress when compared to other traditional graduate programs as stated by Dziegielewski et al. (2004). The transition from classroom to fieldwork training also adds greater stress to students as added by Garrett and Schkade (1995). The researchers would like to find out whether this is also true for Cebu Doctors' University – College of Rehabilitative Sciences internship candidates.

Several studies confirmed that college students experience different degrees of stress. One of the studies that supports this is the study conducted by Rehman Memon et al. (2016) entitled, "Perceived Stress Among Physical Therapy Students of Isra University". A cross-sectional type of descriptive study was conducted on one hundred (100) physical therapy students. Moderate level of stress was found in 73% students (scored between 51-75%), severe level of stress was found in 8% students (scored >75%) whereas low level of stress was found in 19% of students (scored between 25-50%).

Another study was conducted by Pariat, Rynjah, Joplin, and Kharjana (2014) on the stress levels of college students from Shilong City in India which found out that 38.9% or majority of the respondents (15% males and 23.9% females) experienced very low stress. Only 11.9% males and 6.9% females experienced very high stress. Results in the study also indicated that 52.7% of academic stress experienced by the students came from family expectations and 32.4% came from teachers' expectations.

Researchers concluded that academic stress was highly correlated with social and financial stress. They added that positive coping strategies such as meditation, prayer and sleep were found out to be helpful in combating academic stress.

A study conducted by King, Vidourek, Merianos, and Singh (2014) aimed to examine whether college students' perceived happiness differed significantly based on stress, frequency of stress management techniques, and emotional closeness to others (social support). Results indicated that students are least happy about their financial situation, at work, and at school. Perceived happiness differed significantly based on stress levels and emotional closeness to others. Those who reported low perceived happiness reported higher stress levels and lower emotional closeness to others. Majority (61.0%) of participants reported having high stress, and were most stressed regarding school, lack of time, and with their future career. Although high levels of stress were reported, most (72.0%) students reported low frequency in using stress management techniques. Similar to the findings on perceived happiness, perceived stress differed significantly based on emotionally closeness to parents/legal guardians and friends. Those who reported low perceived stress reported higher emotional closeness to others (King et al., 2014).

A study by Amit (2014) made use of the Perceived Academic Stress Scale (PASS) to measure the level of stress experienced by selected students of the College of Rehabilitative Sciences in Cebu Doctors'

University. The study found out that 59% experienced a mild level of stress, 53.23% of the students experienced a moderate level of stress, while only 0.36% reported have experienced a severe level of stress. The study also found out that the perceived level of stress experienced by the students had no significant effect towards their leisure motivation.

Focus group discussions done in the study by Amit (2014) revealed that low test scores or failing grades, teaching strategies of teachers, take-home assignments, requirements, and consecutive exams in a day, preparing for long exams, group reports, and annoying and dependent classmates are what caused them to experience mild stress. On the other hand, several subjects to study for the midterm exams, time-constraint and type of exam in the midterms, deadlines of assignments before midterm exams, and grade expectations of parents are the causes of respondents experiencing moderate stress. Lastly, the respondent that had severe stress level had difficulty coping with the academic stress.

The stress experienced by students may affect the students' academic performance. A higher level of stress experienced by the students result to lower their academic performance as Khan et al. (2013) found. However, Kumari and Gartia (2012) and Siraj et al. (2014) stated that the students with a higher and more severe stress did better in their studies compared to those with less stress. Several studies were conducted to explore the relationship between stress and academic performance.

A study conducted by Khan et al. (2013) explored the effect of academic stress on students' performance and the impact of demographic variables like gender, age and educational level. A sample of one hundred and fifty students was taken from different universities located in Islamabad. Seventy- five respondents were males and the remaining seventy-five were females. The results showed that academic stress can predict 30% of the students' performance. There was a non-significant difference between male and female university students on scores on the Perceived Stress Scale (PSS). Academic stress was also found to be higher in younger students than older students. It was the same with educational level higher academic stress was found in junior students than senior students.

Siraj et al. (2014) conducted a study aimed to explore the stress and stressors and also to determine the association between stress levels and the academic performances in terms of cumulative grade point average (CGPA) of undergraduate medical students of Universiti Kebangsaan Malaysia (UKM). Academic Related and Social-related Stressors caused for severe and high stress in 84% and 49% respondents respectively, with insignificant differences between gender and residency. A total of 16 (8%) students showed to have a moderate level of stress while 93 (53%) and 70 (39%) have a high and severe level of stress respectively. There was an insignificant relationship between stress and academic performance both in terms of gender and residency. In total 76% respondents opined that stress motivates them for better academic performance while 24% denied.

Sohail (2013) conducted a study which determines the relationship of stress and academic performance in first year medical students and to identify sources of stress, levels of stress and relevant coping strategies. Survey questionnaire and in-depth interviews were carried out in the first year students with their consent. Most of the respondents (71.67%) resulted in a moderate level of stress. There is moderate negative and significant correlation between academic performance and sources of stress. Similarly there is moderate negative and significant correlation between academic performance and levels of stress. There was strong positive and significant, correlation between stress level and number of stress sources.

A study by Dogan (2015) entitled, “Student Engagement, Academic Self-efficacy, and Academic Motivation as Predictors of Academic Performance”, aimed to evaluate the extent to which student engagement, academic self-efficacy, and academic motivation affects academic performance of 578 middle and high school students. The results of the study indicated academic self-efficacy and academic motivation do predict academic performance. Although it was not stated that the sense of purpose for their learning predicts academic performance, the results indicated that it affects academic success.

Another study entitled, “Student-related Variables as Predictors of Academic Achievement Among Some Undergraduate Psychology Students in Barbados” by Fayombo (2011), aimed to examine the student-related variables, namely interest in higher education, psychological resilience and

study habit, as predictors of academic achievement among 131 first year psychology students. Results of the study indicated there is a positive significant correlation between the student-related variables, which includes interest, resilience and study habits, and their academic performance.

Resiliency is an individual's capacity to undergo stressful events and may be a key variable in overcoming adversity. A new concept was introduced by Stoltz (1997) which was termed Adversity Quotient® (AQ®). AQ® is a variable that helps to understand how and if a person is able to overcome adversity, and is considered the science of resiliency. A few studies have been conducted to explore the AQ® of students.

In the study conducted by Cura and Gozum (2011) about the relationship between mathematics achievement and the Adversity Quotient of the second year students of Pamantasan ng Lungsod ng Maynila – College of Engineering and Technology, results showed that majority of the students (48.35%) have scored "Low" Adversity Quotient. This is then followed by 25.5% of the respondents having "Below Average" Adversity Quotient; 20.5% of respondents with "Average" Adversity Quotient; 4% of the respondents with "Above Average" Adversity Quotient; and only 5 respondents with High level of Adversity Quotient. Similar results with regards to the level of Adversity Quotient of the respondents were also observed in the studies conducted by Cornista and Macasaet (2013). Moreover, significant relationship was seen between the level of Adversity Quotient and the Mathematics Achievement of the respondents such that

the general performance of students was good with 1.32% of the respondents having excellent performance in mathematics.

In the study entitled, “Intelligence Quotient, Emotional Quotient, Spiritual Quotient, and Adversity Quotient and the Academic Performance of Students” by Villagonzalo (2016), almost similar result was obtained from the aforementioned study above in relation to the levels of Adversity Quotient of the respondents. In which, majority of the respondents or 59% of the total respondents had “Low” Adversity Quotient; 35% had “Below Average”; 5% had “Average”; and only 1% had “Above Average”. In terms of the respondents’ academic performance, majority belongs to Fair Academic Performance which indicates that most respondents have an average Academic Performance. Using the regression statistical analysis, result showed that the p-value of Adversity Quotient and Academic Performance is only 0.451 which means that there was no significant relationship between Adversity Quotient and the Academic Performance of the respondents hence, it was concluded that the Adversity Quotient may not be the only predictor to the academic performance of the student.

In the study conducted by Flejoles and Muzones (2009) entitled, “Adversity Quotient of Bachelor of Science in Maritime Information Technology Students at John B. Lacson Foundation Maritime University-Molo, Inc.”, results showed that the entire respondents from all groups (first year to fourth year level) had “Below Average”. It was then concluded that these students were driven by their comfort level, plays safe with low risk,

settles for good, and are very cautious with change that can limit their creativity and potential.

Given the Adversity Quotient® (AQ®) of the students shown in the previous studies, the researchers would like to know if there is a relationship between AQ® and stress. A study was conducted by Putri, Zulharman and Firdaus (2016) with a purpose determining the relationship between adversity quotient and academic stress level in Riau University. A cross-sectional analytic correlative study was done to 145 medical students. The result of the study found that there was a moderate negative correlation between adversity quotient and academic stress level.

Alka (2012) conducted a study on the secondary school students' response to adversity in relation to certain psychological and performance factors including stress. Using a stratified random sampling technique, the researcher was able to gather data from three different school namely SSC, ICSE, and CBSE. Out of approximately 900 students, only 832 students were used for analysis due to elimination of incomplete responses or responses with errors. The Pearson's Product Moment Correlation technique was used to analyze both variables. Results showed that there is no significant relationship between AQ® and Stress of the secondary students. The reason for this result could be because of the existence of other positive forces at home and school that protected the students from the negative impact of adversities in a form of stress.

As mentioned above, Adversity Quotient® (AQ®) is the science of resiliency. The research on resilience, like that of adversity, points to the individual and institutional characteristics and conditions that influence success when faced with challenges. The concept of resilience is not a new one, although defining it precisely remains a problem. Few studies were found that explored the relationship between resilience and stress.

Wilks (2008) conducted a with the purpose of examining the relationship between academic stress and perceived resilience among social work students, and to identify social support as a protective factor of resilience on this relationship. The sample consisted of 314 social work students from three accredited schools/programs in the southern United States. The sample reported moderate levels of academic stress and social support, and a fairly high level of resilience. Academic stress negatively related to social support and resilience. Social support positively influenced resilience. Academic stress accounted for the most variation in resilience scores. Friend support significantly moderated the negative relationship between academic stress and resilience.

A study entitled, “Exploring the Relationship between Resilience, Perceived Stress and Academic Achievement” was conducted by Solomon (2013), wherein a sample of 162 Manchester Metropolitan University students in years one, two and three, completed an internet based questionnaire which measured the participants’ resilience, perceived stress and academic achievement. The use of Pearson’s correlation found a

negative correlation between perceived stress and academic achievement and perceived stress and resilience. A positive correlation was found between resilience and academic achievement. The use of multiple regression found that these two variables, considered together, predicted academic achievement more accurately rather than individually. The study suggested that low stress perception and high resilience can lead to high academic achievement.

From the aforementioned studies, it can be concluded that Adversity Quotient® (AQ®) may be associated with stress. Since, stress is closely related to academic performance as supported by the studies mentioned, the researchers would like to found out whether AQ® has an effect on academic performance. Bakare (2015) conducted a study to determine the students' Adversity Quotient® and whether the related factors are predictive of the students' Academic Performance among senior secondary students in WASSCE in Southwestern Nigeria. The results showed that the AQ® had a positive -significant relationship with academic achievement in mathematics and English language. It was determined that AQ® together with other factors such as Mathematics Teacher Self-efficacy, School Ownership type, Gender, Age, and Location of School are the most influential predictors of academic achievement.

A study was done by Huijuan (2009), to investigate the Adversity Quotient® (AQ®) and Academic Performance of selected students of St. Joseph College, Quezon City. The study confirmed that Adversity

Quotient® and Academic Performance have a significant relationship. It was also discussed in the study that knowing the Adversity Quotient® of the respondent can predict 7.18% of the GPA accurately.

Española (2016) conducted a study aimed to describe and correlate the AQ® and academic performance of third-year and fourth-year students in Mindanao State University (MSU). The results revealed that the AQ® and academic performance were positively correlated with each other. However, only one of the four components of AQ®, the Origin and Ownership (O2), was shown to have significant relationship with academic performance. These findings suggest that the variance in the academic performance of college students would be better explained by the tendency of one to take responsibility for life adversities and not by the entire AQ® as a construct itself.

A research by Maiquez, Preolco, Sausa, and Talatagod (2015) showed that among the 198 students of USC, the mean AQ® scores of the male respondents was 122.35 and the female respondents was 124.43, with a total mean of 123.39. This study concluded that AQ® cannot predict Academic Performance. They concluded that there might be other mediator variable or external factor that accounts the significant effect of AQ® to Academic Performance.

With the information gathered from the studies mentioned, the researchers would now like to find out if there is a relationship between

Adversity Quotient® and stress and if they can predict the academic performance of the CDU-CRS internship candidates.

Conceptual Framework

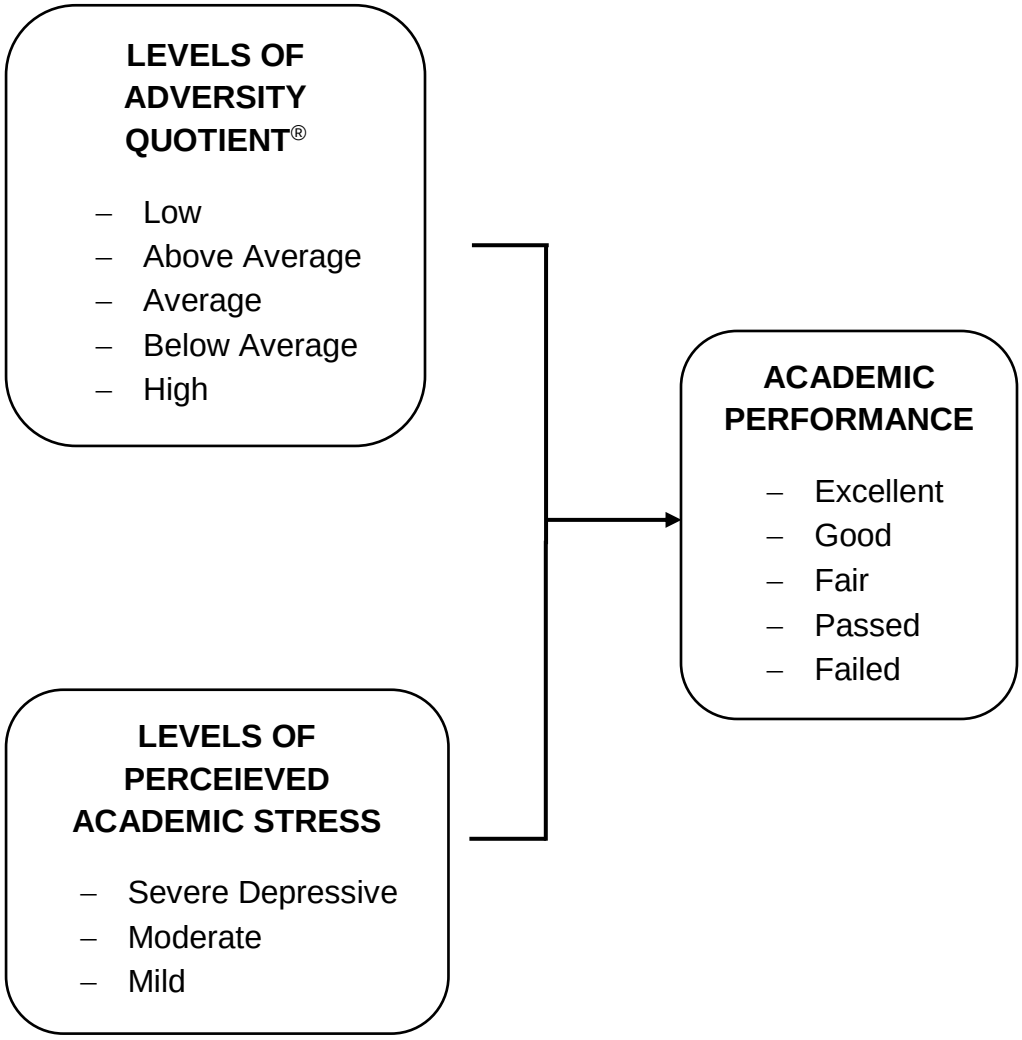

Figure 1

The Schematic Diagram of the Study

As illustrated in figure 1.0, the study intends to determine the predictive ability of the two independent variables, the Adversity Quotient® and Perceived Academic Stress on the dependent variable, Academic Performance.

THE PROBLEM

Statement of the Problem

This study aimed to investigate the levels of Adversity Quotient® and levels of Perceived Academic Stress as predictors of the Academic Performance of CDU-CRS Internship Candidates.

Specifically, this study aimed to investigate the following:

1. Identify the levels of Adversity Quotient® among the respondents, in terms of:
    1.1 High
    1.2 Above Average
    1.3 Average
    1.4 Below Average
    1.5 Low
2. Identify the levels of Perceived Academic Stress among the respondents, in terms of:
    2.1 Severe Depressive
    2.2 Moderate
    2.3 Mild
3. Identify the Academic Performance among the respondents, in terms of:
    3.1 Excellent
    3.2 Good
    3.3 Fair

3.4 Passing

3.5 Failed

4. Determine the significant relationship between levels of Adversity Quotient® and levels of Perceived Academic Stress
5. Determine if the levels of Adversity Quotient® and levels of Perceived Academic Stress can predict Academic Performance

Significance of the Study

The findings of this study are beneficial to the following:

Research Respondents benefit from this study through different ways. First, they will be able to identify their Adversity Quotient® (AQ®) level and level of Perceived Academic Stress. Second, they can be aware of the relationship between AQ® and their perceived academic stress, and how it affects their Academic Performance. In turn, this helps them improve their response to adversity and secondarily, their Academic Performance. This awareness also allows them to realize that by improving their response to stress, they can also improve their ability to be resilient when facing challenges during internship and future endeavors.

Parents of the Respondents benefit from this study through different ways. First, they are given insight on their children's Adversity Quotient® level and their level of Perceived Academic Stress. Second, in understanding their relationship, they can be guided in helping their children

improve their ability to overcome adversities they will experience in their future endeavors.

College of Rehabilitative Sciences teachers and faculty members benefit from this study through different ways. First, they can understand the importance of students' ability to respond to adversity in relation to their Academic Performance. Second, they can be guided in preparing the students for the challenges they will have to face during internship by considering the students' different levels of Adversity Quotient® levels and levels of Perceived Academic Stress.

Guidance Counselors benefit from this study through different ways. First, they can be given insight on the Adversity Quotient® level and level of Perceived Academic Stress of the students. Second, they become aware of their importance in relation to Academic Performance. Third, in knowing their relationship, they can be guided in helping the students deal with difficulties in adapting to college stress and adversities.

Future Researchers benefit from this study through different ways. First, the results of the research can serve as basis for further research on the relationship between the levels of Adversity Quotient® and Perceived Academic Stress. Second, it can provide them with information and guide for further research on the instrument, Perceived Academic Stress Scale.

Scope and Limitation of the Study

The study only included the regular fourth year OT, PT, SLP students and third year RTp students officially enrolled in CDU-CRS on the second semester of the academic year 2015-2016. It focused on three (3) important variables, the levels of Adversity Quotient®, levels of Perceived Academic Stress and Academic Performance. The method of this study was limited to the descriptive method specifically to determine the level of Adversity Quotient®, the level of Perceived Academic Stress, and Academic Performance, and predictive method specifically to determine the predictive ability of the level of Adversity Quotient® and level of Perceived Academic Stress on Academic Performance.

RESEARCH METHODOLOGY

Research Design

The study used a descriptive, correlational and predictive design.

The descriptive method was used to determine the levels of Adversity Quotient®, levels of Perceived Academic Stress and midterm Academic Performance of the respondents during the second semester of the academic year 2015-2016.

The correlational method was used to determine the significant relationship between Adversity Quotient® and Perceived Academic Stress.

The predictive method was used to determine if Adversity Quotient® and Perceived Academic Stress can predict Academic Performance.

Research Environment

The researchers conducted the study at Cebu Doctors' University (CDU), 1 Dr. P. V. Larrazabal Jr. Avenue, North Reclamation Area, Mandaue City, Cebu. It is a private, autonomous university, offering courses or degree programs from the Colleges of Medicine, Nursing, Allied Medical Sciences, Rehabilitative Sciences, Pharmacy, Optometry, Dentistry, and Arts and Sciences. It is owned by a corporation headed by Dr. Potenciano V. Larrazabal, Jr., the president and chairman of the board.

The researchers specifically conducted the gathering of data at the computer laboratories at the fourth floor level, rooms 414 and 416. The rooms were air-conditioned and contained forty (40) computers, arranged

in columns of ten (10) computers. The teacher's desk and white board were situated at the front of the room while at the back was the technicians' office. The laboratories had two doors, one at the back and one at the front.

Research Respondents

The respondents were the total population of the regular fourth year Occupational Therapy (OT), Physical Therapy (PT) and Speech-Language Pathology (SLP) students, and regular third year Respiratory Therapy (RTp) students in the College of Rehabilitative Sciences on the second semester of the academic year 2015-2016.

For the fourth year OT students to be considered as an internship candidate, a full regular load for the second semester containing twenty-four (24) units was required. They were expected to have the following subjects in their respective subject load: Orthotics and Prosthetics in Occupational therapy four (4) units, Organization and Administration in Occupational therapy three (3) units, Research Data Collection in Occupational therapy One-point-five (1.5) unit, OT in Community Health and Rehabilitation five (5) units, OT Management in Pediatrics (Physical and Psychosocial Dysfunction) five (5) units, Physical Agents Modalities in Occupational therapy three (3) units, and Field work Training II: Physical Dysfunction two (2) units.

For the fourth year PT students to be considered as an internship candidate, a full regular load for the second semester containing twenty-

eight (28) units was required. They were expected to have the following subjects in their respective subject load: Community-Based Rehabilitation three (3) units, Orthopedics five (5) units, Continuation of Intro to Clinics two (2) units, Elements of Research in Physical Therapy and Proposal Writing three (3) units, Physical therapy Practice across Cultures one (1) unit, Clinical Correlation and Team Approach II two (2) units, Therapeutic Exercise for Surgical and Orthopedic Conditions five (5) units, and Consultation, Screening, and Delegation in Physical Therapy Practice three (3) units.

For the fourth year SLP students to be considered as an internship candidate, a full regular load for the second semester containing twenty-two (22) units was required. They were expected to have the following subjects in their respective subject load: Ethics in Speech-Language Pathology two (2) units, Motor Speech Conditions three (3) units, Augmentative and Alternative Communication two (2) units, Dysphagia three (3) units, Introduction to the Speech and Language Intervention Process three (3) units, Clinical Reasoning Practice three (3) units, Research Data Collection in Speech-Language Pathology one-point-five (1.5) unit, Community-Based Rehabilitation three (3) units, and Pharmacology in Rehabilitation one-point-five (1.5) unit.

For the third year RTp students to be considered as an internship candidate, a full regular load for the second semester containing eighteen (18) units was required. They were expected to have the following subjects

in their respective subject load: Advanced Mechanical Ventilation one (1) unit, Elements of Research in Respiratory Therapy and Proposal Writing three (3) units, ICU Crisis Management one (1) unit, Principles of Pulmonary Physiology in the ICU three (3) units, Principles of Neonatal/ Pediatric Respiratory Care two (2) units, Ventilation and Gas Exchange Monitoring three (3) units, Test of Pulmonary Function and Structure three (3) units, Teaching in Health Care Setting one (1) unit, and Hemodynamic Monitoring one (1) unit.

The total population of the internship candidates for the College of Rehabilitative Sciences was one-hundred (116). The total population of internship candidates from each department were twenty (20) Occupational Therapy students, sixty-four (64) Physical Therapy students, twelve (12) Respiratory Therapy students and twenty (20) Speech-Language Pathology students.

Research Instruments

To obtain the levels of Adversity Quotient® and levels of perceived academic stress of the respondents, the study utilized two (2) questionnaires to answer the research problems, Adversity Quotient Profile® and Perceived Academic Stress Scale.

Adversity Quotient Profile® (AQP®) was designed by Stoltz (1997), a proponent of the Adversity Theory. It was used to collect data on the respondents' on level of Adversity Quotient®. The administration of the

instrument was through a unique link provided by Peak Learning containing the Adversity Quotient Profile® (AQP®). The unique link was only valid until March one (1). As stated in the contract signed between the respondents and Peak Learning, the AQP® was not included in the appendix of the study. The scores and interpretation of the results were sent to and processed by Peak Learning. Peak Learning sent the researchers the raw scores of the AQP® presented through a spreadsheet.

The Adversity Quotient Profile® (AQP®) had a psychometric property of Cronbach Alpha 0.80-0.82 for the sub-cores and 0.91 for the Adversity Quotient® (AQ®). For the sub-cores Control, Ownership, Reach and Endurance, the Cronbach Alpha score was 0.82, 0.83, 0.84 and 0.80 respectively.

Perceived Academic Stress Scale (PASS) by Amit and Abejar (as cited in Amit, 2014) was used to collect data on levels of stress experienced by students. It was an instrument modified from the Perceived Stress Scale by Cohen (1994, as cited in Amit, 2014).

The PASS contained forty (40) questions in total. It was divided into two parts,Part I (Academic Stressors) with fourteen (14) questions and Part II (Reactions to Academic Stressors) with twenty-five (25) questions. To the right side of each statement was a box containing a 5-letter scale which indicated how frequently one experienced the academic situation and the reaction with: "one (1)" meaning that it never happens, "two (2)" meaning that it seldom happens, "three (3)" means that it happens occasionally, "four

(4)" means that it is often happening, and "five (5)" means that it happens most of the time.

The total scores from each part: Part I (Academic Stressors) and Part II (Reactions to Academic Stressors) were summed up to get a total score and identify which subscale the student belonged and his/her level of academic stress. The three (3) subscales according to the level of academic stress are Absent/Mild, Moderate, and Severe. A scale of one-hundred-fifty to two-hundred (150-200) indicated Severe academic stress, one-hundred to one-hundred-forty-nine (100-149) indicated Moderate academic stress, and zero to ninety-nine (0-99) indicated Absent/Mild academic stress.

The psychometric property of the Academic Stressors was Alpha 0.78 and Reactions to Academic Stressors was Alpha 0.81. For the overall index for Perceived Academic Stress Scale was Alpha 0.87.

Research Procedures

Gathering of Data

First, a letter for approval was sent to the Vice-President of Academic Affairs in Cebu Doctors' University requesting permission to administer the study at Cebu Doctors' University with the internship candidates of College of Rehabilitative Sciences as the respondents of the study. The letter was approved and signed.

A letter for approval was sent to the year level advisers of the regular fourth year Occupational Therapy (OT), Physical Therapy (PT) and Speech-

Language Pathology (SLP) students, and regular third year Respiratory Therapy (RTp), students in the College of Rehabilitative Sciences requesting the students' time for the administration of the instrument and to obtain a copy of the students' midterm grade for each subject. The letters were signed and approved by the respective year level advisers.

A letter for permission to use the Adversity Quotient Profile® (AQP®) was sent to Dr. Paul Stoltz through electronic mail. An email was sent to the researchers from Dr. Paul Stoltz, approving the use of the instrument including a contract to be signed by the researchers. Next, a letter of permission to use the Perceived Academic Stress Scale was sent to Phoebe Marie Amit, OTRP and Maria Fe F. Abejar, RPsyc, MA, MAT. The letter was approved and signed.

A letter containing the information that the completed study was sent to Peak Learning and a contract with Peak Learning, which was signed by the researchers, was sent to the Research Office. Next, a letter asking for the permission to use the computer laboratory of CDU for administration of the online questionnaire was sent to the Head of the Computer Sciences of the College of Arts and Sciences. The letter was approved and signed.

After obtaining the approval letters, the researchers scheduled a time for consultation with the respective advisers of the regular fourth year students of OT, PT and SLP, and the regular third year students of RTp to discuss with them the schedule of the administration of questionnaires and to inform them of the location of the administration.

The administration procedure was done in Cebu Doctor's University Computer Laboratory, fourth floor level, rooms 414 and 416. The duration of the administration took approximately thirty (30) to forty-five (45) minutes. The administration was on the second to the fourth week of February.

During the administration, the respondents were first briefed on the purpose of the study. Next, they were given an informed consent containing risks and benefits of the study, and permission to obtain their midterm grade point average. They were also given a demographic form to fill up before answering the two (2) questionnaires.

The respondents were read and carefully explained about the instructions in answering or filling up both questionnaires. The researchers asked the respondents to answer the questions honestly and asked if they had any clarifications regarding the questionnaires.

Using the computers, the respondents answered the Adversity Quotient® through the unique link. They logged-in on the provided link and were directed to the questionnaire. After the respondents finished answering the AQP®, the Perceived Academic Stress Scale, which was a pen and paper questionnaire, was distributed and the respondents were given an allotted time to answer the questionnaire.

After the respondents finished answering the two (2) questionnaires, the researchers asked the respondents if they liked to know the results of the questionnaires and if so, they were taught the scoring procedure. The researchers also informed the respondents on the scoring interpretations.

After the administration was finished, the researchers thanked the students in participating in their study. The researchers thanked the respective teachers, for allowing time on their schedule for the researchers to conduct their study. The researchers also thanked the Head of the Computer Sciences and computer laboratory technician for allowing the use of the computers and allotting time for the use of the computers.

Statistical Treatment of Data

The data collected was analyzed in the IBM SPSS Statistics version 22. The data gathered was presented altogether as a whole, regardless of the respondents' course or degree program.

The percentage distribution of the respondents belonging to the low, below average, average, above average, and high AQ® group, mild, moderate and severe depressive Perceived Academic Stress group, and failed, passing, fair, good, and excellent Academic Performance were presented.

The significant relationship between the level of Adversity Quotient® and level of Perceived Academic Stress was determined through the Pearson's Correlation of Co-efficient. It was tested with a 5% level of significance.

To determine the predictive ability of Adversity Quotient® and Perceived Academic Stress on Academic Performance, the Multiple Regression Analysis was used.

DEFINITION OF TERMS

Adversity Quotient®. It refers to the ability of a person to overcome challenges and become resilient. It explains how a person responds to adverse events and how he or she can overcome them. It can also determine who will prevail and who will not, and who will succeed or who will give up. The Adversity Quotient Profile® (AQP®) was used to measure the students' level of Adversity Quotient®. It was designed by Stoltz (1997), the proponent of the Adversity Theory. There are three (3) levels of Adversity Quotient®:

Score	Level	Interpretation
40-118	Low	Suggests that the respondent has low levels of motivation, energy, performance, and persistence, and has tendency to become a "quitter".
119-135	Below Average	The respondent is likely to be under-utilizing his potential. Adversity can take a significant and unnecessary toll, making it difficult to continue the ascent. The respondent may battle against a sense of helplessness and despair.
136-157	Average	Suggests that the respondent may tend to underutilize his or her potential,

		experiences a sense of helplessness from time to time, and has the tendency to become a “camper”.
158-175	Above Average	The respondent has probably done a fairly good job in persisting through challenges and in tapping a good portion of growing potential on a daily basis.
176-200	High	Suggests that the respondent is able to withstand significant adversity, responds appropriately to events, and has tendency to become a “climber”.

Perceived Academic Stress**.** It refers to the pressure to do well in school brought upon by a person to him or herself. This would also mean taking multiple difficult classes, feeling the need to get good grades in these classes, worrying about getting into college, or the right college. The Perceived Academic Stress Scale (PASS) was used to assess the students’ Perceived Academic Stress and reactions to stress. It was designed by Amit and Abejar (as cited in Amit, 2014). There are three (3) levels of Perceived Academic Stress:

Score	Level	Interpretation
0-99	Mild	Suggests that the respondent is functioning well in his/her studies and has no evident signs of stress.
100-149	Moderate	Suggests that the respondent may tend to have difficulties coping up with his/her studies and has evident signs of stress.
150-200	Severe Depressive	Suggests that the respondent has prominent perceived academic stress and has major difficulty in coping up with the stressors related to his/her studies.

Academic Performance. It refers to the level of success of a student in his or her education. It reflects the ability of the student to meet the standards of the university, or institution. The Academic Performance was based upon the academic ratings of Cebu Doctors' University. The midterm grade of the academic year 2015-2016 second semester of the respondents were used.

Grade	Equivalent	Description
1.0-1.5	100-90	Excellent
		The student has displayed excellent work on the subject. The student also showed great understanding, deep and broad knowledge, and comprehensive mastery on the subject exceeding beyond the formal requirements of the subject.
1.6-2.4	89-81	Good
		The student has displayed good work on the subject. The student showed understanding, sufficient knowledge and adequate mastery on the subject.

2.5-2.9	76-80	Fair	The student has displayed fair work on the subject. The student showed basic understanding and knowledge but lacks mastery on the subject.
3.0	75	Passing	The student has met the minimum requirement to pass the subject but needs improvement on his/her understanding and knowledge on the subject.
5.0	74 & below	Failed	The student has failed to meet the minimum requirements to pass the subject and showed little to no understanding and knowledge on the subject.

Chapter 2

PRESENTATION, INTERPRETATION, AND ANALYSIS OF DATA

The findings of the study were presented, analyzed and interpreted in this chapter in five (5) sections, namely:

1. Level of Adversity Quotient® (AQ®)
2. Level of Perceived Academic Stress
3. Academic Performance of the Respondents
4. The Correlation between Adversity Quotient® and Perceived Academic Stress
5. The Predictive Ability of Adversity Quotient® and Perceived Academic Stress on Academic Performance

Level of Adversity Quotient® (AQ®)

The Adversity Quotient® (AQ®) is a new concept introduced by Stoltz (1997) that helps to understand how and if a person is able to overcome adversity, and is considered the science of resiliency. It is the ability of the person to overcome challenges and be resilient. The AQ® is measured in five (5) levels – high, above average, average, below average and low.

Percentage Distribution of Level of Adversity Quotient® (n = 116)

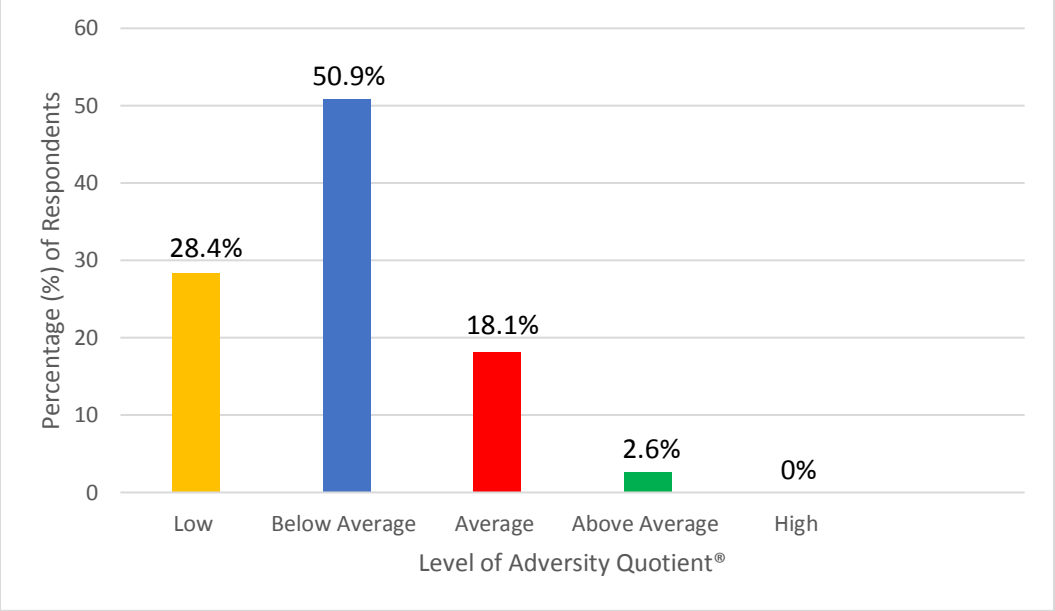

Figure 2

Figure 2 presents the percentage distribution of all the respondents' level of AQ®. The figure shows that, zero percent (0%) of the respondents scored a high Adversity Quotient® (AQ®) score, two point six percent (2.6%) of the respondents scored above average, eighteen point one percent (18.1%) scored an average score, fifty point nine percent (50.9%) scored below average, while twenty-eight point four percent (28.4%) of the respondents scored a low AQ® score.

The results indicated that half of the respondents (50.9%) had a below average Adversity Quotient® (AQ®). Stoltz (1997) wrote that with a below average AQ®, the respondents are likely to be under-utilizing their potential. Adversity experienced by the respondents was taking a significant and unnecessary toll on them making it difficult to ascend in the climb of

success. The respondents may have been battling against a sense of helplessness and despair. Hence, when the students were faced with difficult ordealstheir perception and ability to overcome these challenges were important factors in determining success in the academe.

A study conducted by Flejoles and Muzones (2009) had a similar result to the present study. Their study also showed that fourth year and third year college students have below average Adversity Quotient® level. This means that most of their respondents are comfort-driven, play it safe, low risk, compatible, settle for good, competent, limited creativity, and cautious about change (Stoltz, 1997).

To further understand the Adversity Quotient® (AQ®) of the respondents, it was essential to look into the dimensions of AQ®. Control, the first dimension of the AQ® is an internal and highly individual construct that reflects the perceived level of control of the respondents over their life events. Higher control scores would mean that an individual perceives he or she has a strong degree of control over the adverse event. While lower control scores could mean that an individual perceives the adverse events as beyond their control.

In the present study, three point three percent (3.3%) of the respondents scored a low control score, thirty point six percent (30.6%) scored a high-range control score while most of the respondents or sixty-six point one percent (66.1%) of the respondents scored a mid-range control score. According to Stoltz (1997), a mid-range score on the control

dimension reflects that the respondents perceived a partial control over adverse events they experienced. The control they perceived also greatly depended on the magnitude of the event. They may have not been easily discouraged when adversity arised, but they may have had difficulty maintaining a sense of control when more serious setbacks occurred.

Another explanation of the below average score of the respondents was their score on the second dimension of the Adversity Quotient® (AQ®): origin and ownership. In the present study, most of the respondents or fifty-two point nine percent (52.9%) of the population scored a mid-range origin and ownership score while two point five percent (2.5%) gathered a high-range score and forty-four point six percent (44.6%) had a low score. According to Stoltz (1997), origin and ownership is the prospect to which an individual accounts himself for what has happened and will do something to improve a situation. A mid-range score on the origin and ownership reflects that the respondents' may have seen the outcome of adversity occurring in their lives as partly of their doing and partly from external factors outside of their control. And because of this, the respondents limited their accountability only to the things in which they thought they were the direct cause, preventing them in contributing in a larger way.

The third dimension of the Adversity Quotient® (AQ®), reach, reflects how the individuals perceived the scope of impact the adversity had on different aspects of their lives. In the study, two point five percent (2.5%) of the respondents garnered a high-range score on reach, forty-four point six

percent (44.6%) scored a low-range score and fifty-two point nine percent (52.9%) or most of the respondents received a mid-range score in reach. A mid-range score means that the respondents may have had felt that the adverse events they experienced had only specific effects on different aspects of their lives. However, when they were caught in a weaker moment, they tended to catastrophize what they experienced, making the effect more severe compared to reality (Stoltz, 1997).

The fourth and last dimension of the Adversity Quotient® (AQ®), endurance, reflects how one perceived the length the adverse event will last. Higher endurance scores would mean that an individual perceived the adversity to have had a short time effect in their lives while a lower endurance score meant that the individual perceived the adversity could have had impacted their life for a long duration or forever. In the present study, eleven point six percent (11.6%) of the population gathered a high-range endurance score, nine point nine percent (9.9%) received a low-range endurance score, and seventy-eight point five percent (78.5%) of the respondents received a mid-range score for endurance. This meant that most of the respondents perceived the adversity to be enduring which may have had delayed them in taking constructive action. They may have had performed with a reasonable good job when undertaking small to moderate life challenges as they were able to move forward. But when caught in weaker moments, the respondents' sense of hope diminished (Stoltz, 1997).

In reality-based context, this can be shown when the students were initially well-driven to pass the subject he or she was enrolled in. But when the school tasks, such as paper works, written examinations, practical examinations and clinic visits, accumulated, the students' drive to succeed diminished as they became overwhelmed by the demands of their schoolwork. The students began to feel powerless over the situation and may have tended to give a mediocre performance on their schoolwork or may have not simply complied at all.

Level of Perceived Academic Stress

Perceived Academic Stress refers to the pressure to do well in school brought upon the person. This would also mean taking multiple difficult classes, feeling the need to get good grades in these classes, worrying about getting into college, or the right college. It is measured in three (3) levels – mild, moderate, and severe depressive.

Percentage Distribution of the Level of Perceived Academic Stress (n = 116)

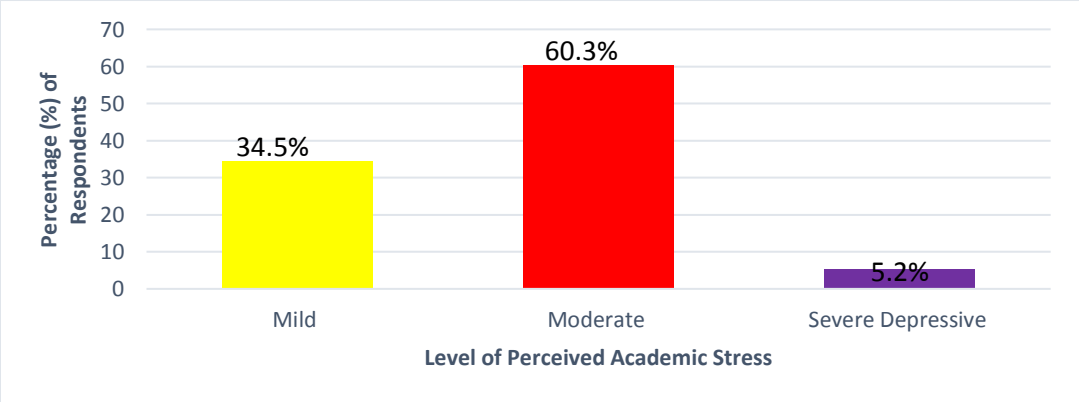

Figure 3

Figure 3 presents the percentage distribution of the respondents' level of Perceived Academic Stress. As shown in the figure, thirty-four point five percent (34.5%) scored mild, sixty point three percent (60.3 %) scored moderate, while five point two percent (5.2%) scored severe depressive.

Most of the respondents (60.3%) experienced a moderate level of perceived academic stress which indicated that the respondents were experiencing difficulties in coping with their studies and showed evident signs of stress.

Based on the results of the Perceived Academic Stress Scale, the respondents often experienced exhaustion, weight gain, fear, anxiety and worry. They also occasionally experienced rapid movements such as moving quickly from place to place, stuttering, backaches, migraines, headaches, hypertension and rapid heartbeat, and also made use of defense mechanisms.

Four components of academic stress have been identified by Bisht (1989, as cited in Lal, 2014): academic frustration, academic conflict, academic pressure and academic anxiety. The first component, academic frustration is the state of resentment a student experiences when feeling his or her academic goals are being harmed. Academic conflict, the second component, is the result of two or more response tendencies that are perceived as mismatched or unsuited to academic goals selected. Academic pressure, the third component, is the time and energy demands a student encounters when meeting his or her academic goals. And lastly,

academic anxiety, the last component, refers to the apprehension that some academic goals are harmed.

In the present study, the four components of the academic stress were evident in the results of the Perceived Academic Stress Scale. Respondents often experienced academic frustrations due to delays in reaching their academic goals. They also experienced failures in accomplishing the goals that they set. With academic conflict, the respondents often experienced daily hassles which affected them in reaching their goals. With academic pressure, they experienced most of the time pressure due to deadlines on papers, payments, projects and others and pressure due to school work overload. Lastly with academic anxiety, the respondents were occasionally worried and anxious about taking tests and they also often had a tendency to procrastinate. These components have led the respondents to perceive a moderate level of stress. Such findings were also seen by researchers Khan et al., (2013) wherein they wrote that college students are prone to stress since students' load is based more on difficulty to stand out in time-limited tests and examinations especially in an advanced educational organization, like in a university.

Similar to the present study, the studies conducted by Wilks (2008) and Rehman Memon et al. (2016) showed moderate levels of academic stress on their respondents. To support these results, Dziegielewski et al. (2004) also stated that students experienced more stress due to clinical training for clinical experience. Students had to work hard to apply for

internship programs for it is only in these programs that they get first-hand experience in the clinic. Garrett and Schkade (1995) also added that the transition and developmental nature of movement from school towards entry-level competence or fieldwork training generates higher stress and pressure on students.

The students may have had experienced moderate stress level when they started to show signs of anxiety which their ability to focus and work their studies. They may have had experienced difficulty in concentrating on tasks at hand as they were preoccupied with their other thoughts. This is similar to the transitional adaptive response cited in the Occupational Adaptation Model of Professional Development (OAMPD). Schkade (1991, as cited in Garrett & Schkade, 1995) wrote that transitional adaptive responses are hypermobilized and unpurposeful. It is manifested by a student's attention to irrelevant stimuli producing movements that have no clear goal direction. However, it is also in this stage that intervention is given best to help transform transitional responses into mature ones.

In relation to reality, during clinic visits, a candidate for internship may have had difficulty concentrating on treating a patient as he or she was worried with all the requirements needed to be accomplished such as examinations, reports and thesis papers. The student may have also coped with the amount of stress by avoiding task through engaging in unpurposeful movements such as walking quickly from one place to the other, or simply tapping one's fingers repeatedly on his or her desk. The student may have

had also occupied his time engaging in non-school related tasks, such as surfing the internet, watching movies, frequently going out with friends, oversleeping and overeating.

Academic Performance of the Respondents

Academic Performance refers to the level of success of a student in his or her education. It reflects the ability of the student to meet the standards of the university, or institution. It is measured in terms of – failed, passing, fair, good, and excellent.

Percentage Distribution of the Academic Performance (n=116)

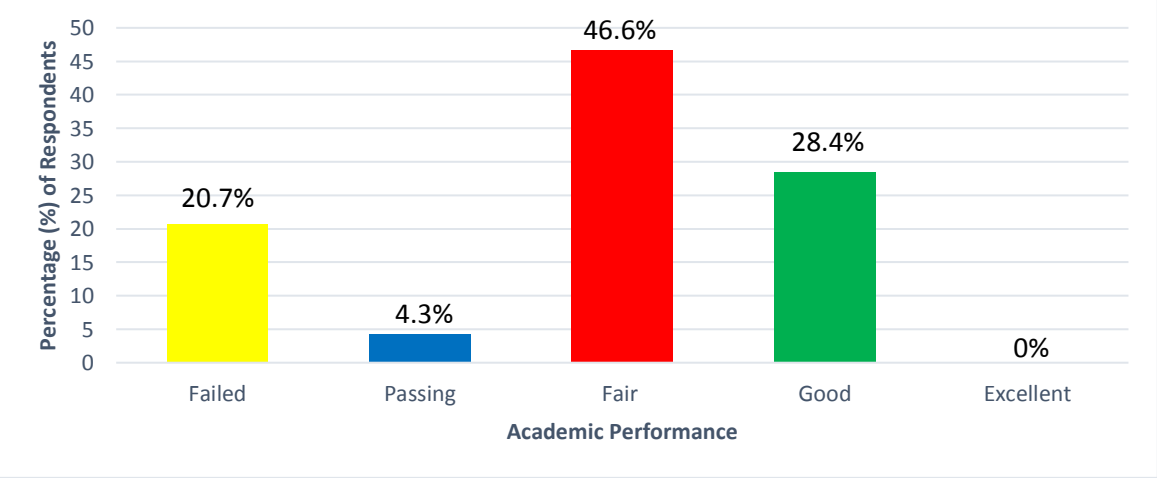

Figure 4

Figure 4 presents the percentage distribution of the respondents' Academic Performance. As shown on the figure above, twenty point seven percent (20.7%) respondents failed, four point three percent (4.3 %) respondents obtained a passing over-all grade, forty-six point six percent

(46.6%) obtained a fair over-all grade, twenty-eight point four percent (28.4%), obtained a good over-all grade, and zero percent (0%) obtained an excellent overall grade.

Most of the respondents (46.6%) had a fair academic performance. This meant that they showed fair work on their subjects, and showed basic understanding and knowledge but lacks mastery on the subject. Similar to the studies conducted by Huijuan (2009) and Villagonzalo (2016), most of their respondents also had a fair or satisfactory academic performance.

Formal education participation is one of the most important areas of occupation a student engages in. It is defined as participation in academic, non-academic, extracurricular, and vocational academic activities (AOTA, 2014). Academic performance is one way to measure a student's formal education participation.

In Cebu Doctors' University, academic performance is ranked from excellent to failed. Most of the respondents in the current study had a fair academic performance which indicated that the internship candidates had passing scores but do not exceed the expected requirements of the subjects. The internship candidates were able to perform their role as a student sufficiently; however, their performance in formal education as shown in their academic performance was not optimal. The students were seen to submit mediocre requirements or paperworks, and participated in their class with little or no enthusiasm. With this in mind, the learning experience of the students was compromised.

Correlation of Adversity Quotient® and Perceived Academic Stress

Correlation identifies the interaction and direction of relationship of two variables. The relationship between the two main variables Adversity Quotient® and Perceived Academic Stress is determined using the Pearson r correlation coefficient. Figure 5 presents the scatter plot of the interaction between the two (2) variables.

Scatter Plot of Level of Adversity Quotient® and Perceived Academic Stress (n = 116)

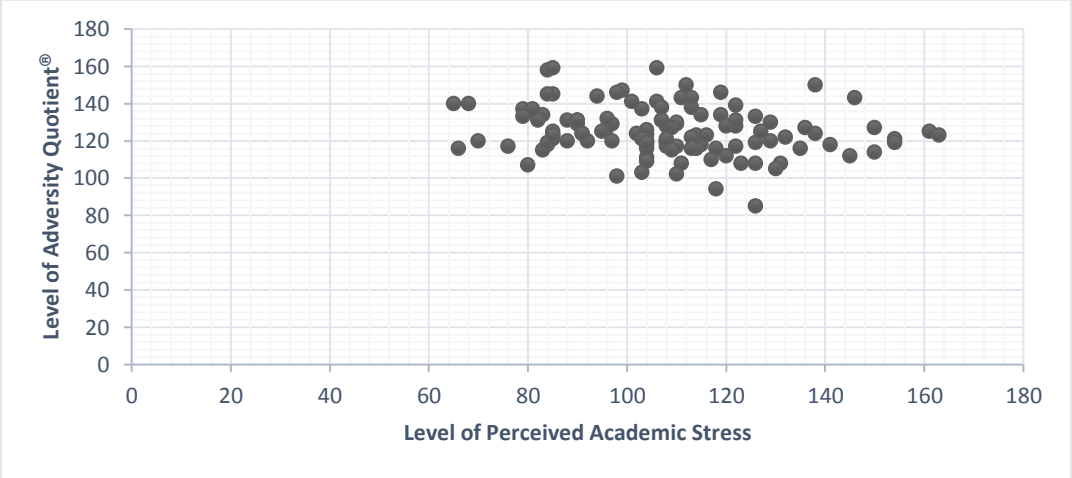

Figure 5

The figure above shows that the variables Adversity Quotient® (AQ®) and Perceived Academic Stress had a negative weak correlation between each other, indicating an indirect relationship. This meant that as the level of AQ® of the respondents increased, their level of perceived academic stress is decreased or vice versa. With a higher level of AQ®, one is able to

withstand significant adversity and is able to respond appropriately to adverse events. The respondents may have had perceived that they had control over the events occurring, and thus led them to perceive a decreased level of stress.

Lee et al. (2012) wrote that to be stress-resistant is to be resilient. When a person is resilient, he or she has a high capacity to undergo stressful events thus making him or her perceive lesser stress than those who are not resilient. In the context of the Adversity Quotient® (AQ®), a high AQ® would mean that an individual perceives himself to have a high control over the stressful event (Stoltz, 1997).

In the theory of Occupation Adaptation, Schkade (2014) wrote that when a person's adaptive capacity or resiliency is high, he or she is able to make smooth and competent transitions during major life events. The person is able to view the occupational challenge as something he or she can easily overcome and from there produces an adaptive response that leads to relative mastery.

Similarly in the study conducted by Putri et al. (2016), the correlation between Adversity Quotient® (AQ®) and academic stress also yielded a negative correlation. The study of Solomon (2013) also resulted in a negative relationship between resiliency and perceived stress. Therefore, when there is high AQ® or resiliency, there is low perceived academic stress and when there is high perceived academic stress, resiliency or AQ® is low.

In the result of the present study, the respondents' below average level of Adversity Quotient® (AQ®) had led them to perceive a moderate level of academic stress. When the students were faced with a number of difficulties, such as multiple paperworks, exams, and other requirements, they became overwhelmed and began to experience a sense of despair or helplessness. This caused the students to under-their potential which was seen through a mediocre performance on schoolwork, with a goal for compliance rather than learning. They also experienced signs of academic stress such as exhaustion, weight gain, fear, anxiety and worry, rapid movements such as moving quickly from place to place, stuttering, backaches, migraines, headaches, hypertension, rapid heartbeat, and making use of defense mechanism

However, the weak correlation is not sufficient enough to support the interaction between AQ® and perceived academic stress since in the result of the present study, only four point sixteen percent (4.16%) of the variations in AQ® (Pearson r = -0.204, R^2 = 4.16%) were explained by the variations in Perceived Academic Stress or vice versa. Alka (2012) stated in her study that there could be other factors that protect the students from adversity or stress. Positive forces at home or at school could nullify the effects of adversities in a student' life. Wilks (2008) wrote that although academic stress accounted for the variations in resilience, friend support moderated the negative relationship between academic stress and resilience as it plays a protective role with resilience in spite of academic stress.

It can be concluded that although both AQ® and perceived academic stress are related to each other, several factors are still involved that influence the relationship between the two variables. With this, it can be said that the relationship between AQ® and stress alone is weak as both variable are easily influenced by other factors that affect their relationship. In reality, a student may feel that he or she is heavily stressed or that he or she has no chance to succeed in his or her current endeavor at one point. But because of positive forces such as the support he or she gets from his or her family, friends, or teachers, he or she begins to feel uplifted. The level of stress he or she perceived, decreased. He or she also felt more capable of overcoming the challenges ahead.

Predictive Ability of Adversity Quotient® and Perceived Academic Stress on Academic Performance

Multiple regression analysis is used to know how multiple independent variables are related to a dependent variable. Table 1 presents a summary on the result of the predictive ability of Adversity Quotient® and Perceived Academic Stress on the Academic Performance of the respondents

Table 1

Multiple Regression Analysis of Adversity Quotient® and Perceived Academic Stress as Predictors of Academic Performance

Predictor	Coefficient	F- statistic	p-value
Constant	3.93	9.520	0.000
Adversity Quotient	-0.006	-2.299	0.023
Perceived Academic Stress	-0.004	-2.659	0.009

(R^2 = 0.08, F-statistics = 5.1, p-value = 0.007)

Multiple regression analysis was done to determine the predictive ability of the variables Adversity Quotient® (AQ®) and Perceived Academic Stress on academic performance. The results showed that only eight point three percent (8.3%) of the variation of the academic performance can be explained by the predictors (AQ® and Perceived Academic Stress) and that the 91.7% left is due to an unexplained variation.

The College of Rehabilitative Sciences internship candidates' perception of academic stress and their response to adversity may impact their academic performance. But there are other greater influences that may impact their occupational functioning as students, specifically in their academics. The results of the study could be attributed to how relative mastery was perceived in the study.

Garrett and Schkade (1995) wrote that relative mastery is the ability produce efficient and satisfying response to occupational challenges which could denote an underlying subjective quality of relative mastery which was not looked into in the study; students could have different attributions to their satisfaction to their academic performance. If the student perceived that his

or her skill was not that satisfactory, then he or she may have not expected to get a fair grade on her subjects. On the other hand, if the student perceived that he or she was skillful, then he or she expected to have a higher academic performance. How their academic performance reflected their expectations may have affected with how they are satisfied with their results. Perception of an efficient performance is relative to the student and his skills and not entirely related to the standards set out by his or her school such as in a grading system.

The present study supported Maiquez et al. (2015) wherein she suggested in her study that Adversity Quotient® (AQ®) is a predictor of success but it cannot predict academic performance. It also supported the study by Espanola (2016) wherein she explains that the variance in the academic performance of college students would be better explained by the tendency of one to take responsibility for life adversities and not by the entire AQ® as a construct itself.

York et al. (2015) wrote that academic performance or achievement is only one component of academic success as they have identified five (5) other components: career success, attainment of learning objectives, attainment of learning outcomes, persistence, acquisition of skills, and satisfaction of students. Students' perceived academic stress and Adversity Quotient® (AQ®) could have had predicted academic success as a whole but not to academic performance alone. Dogan (2015) also wrote that academic self-efficacy and academic motivation do predict academic

performance. Although the sense of purpose may not affect academic performance, it may however, affect academic success as a whole. Fayombo (2011) also wrote that aside from the students' resilience, the students' interest and study habits must also be considered as they affect academic performance.

In reality, the students' resilience and perception of stress impacts how they perform in school. But the impact is not specific and singular. Both variables do not directly predict if they will pass or fail a given semester, but they may help tell if the student is able to finish the program accordingly to how they see themselves do so. Academic performance is also broad and cannot be summed up easily by a single grading point system.

On a different note, other factors are also present that influence academic performance more than the two variables presented in the study. Students may have been resilient even amidst the level of stress they have experienced, but they still have received a low grade point average. Other factors such as their study habits may have been inefficient for them to receive higher marks on their grading system.

But although statistically weak, eight point three percent (8.3%) can still be a significant part of a student's success in reality. Eight point three percent (8.3%) can still influence the direction of a student's success. As the application and the participation to an internship program is not simple, students need all the help they can get to make the most of the fieldwork

experience to mold them into competent and efficient professionals of the future.

Chapter 3

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS OF THE STUDY

The summary of findings, conclusions, and recommendations of the study entitled, "*Adversity Quotient® and Perceived Academic Stress as Predictors of Academic Performance of CDU-CRS Internship Candidates*" are presented in this chapter.

The study was conducted to one hundred sixteen (116) regular fourth year students of Occupational Therapy (OT), Physical Therapy (PT) and Speech Language Pathology (SLP), and regular third year Respiratory Therapy (RTp) students enrolled in the second semester of the academic year 2015-2016. The study utilized two (2) questionnaires, namely: Adversity Quotient Profile® (AQP®) and Perceived Academic Stress Scale (PASS). The Adversity Quotient Profile® (AQP®) was used to measure the students' level of adversity quotient. The Perceived Academic Stress Scale (PASS) was used to measure the students' perceived academic stress and reactions to stress. The midterm grade point average (GPA) for the second semester of the academic year 2015-2016 for all subject loads, except for Research subjects, of the regular fourth year OT, PT and SLP students, and third year RTp students were also obtained to measure the students' academic performance.

Summary of Findings

Based on the data presented, analyzed, and interpreted in Chapter two (2), the following findings were presented:

For the level of Adversity Quotient®, majority of the respondents were in below average with a frequency of fifty-nine (59) with a percentage of fifty point nine (50.9%). Minority of the respondents fell under high with a frequency of zero (0) and zero percentage (0%).

For the level of perceived academic stress, majority of the respondents were in moderate with a frequency of seventy (70) and a percentage of sixty point three (60.3%). On the other hand, the minority of the respondents were under severe depressive with a frequency of six (6) and five point two percent (5.2%).

In terms of academic performance, majority of the respondents were in fair with a frequency of fifty-four (54) and percentage of forty-six point six (46.6%) while minority of the respondents were in passed with a frequency of five (5) and four point three percent (4.3%).

For the relationship between the levels of Adversity Quotient® and levels of perceived academic stress, there was an indirect relationship for the two variables with a negative but weak correlation between the variables.

Lastly, the predictive ability of adversity quotient® and perceived academic stress on academic performance was only eight point three

percent (8.3%) while ninety-one point seven percent (91.7%) stated that academic performance was caused by other unexplained variation.

Conclusions

Based on the findings, the researchers have come up with the statement of conclusion:

The levels of Adversity Quotient® and levels of Perceived Academic Stress were weak predictors of the Academic Performance of CDU-CRS Internship Candidates.

Recommendations

Based on the findings, the researchers would like to recommend the following:

1. The respondents should reflect on their ability to respond to adversity and how they experience stress by reading about and understanding different ways of responding to adversity and stress. In doing so, they may be able to find ways to develop their ability to deal with adversity and stress, and in turn, will be able to facilitate their academic performance and their ability to respond to the challenges they will face during internship.
2. The parents of the respondents should be aware of their children's stress levels, the causes of these stresses, and how they are dealing

with it through simple acts such as talking to them or asking them about how they are doing in school. Through this awareness, they will be able to find ways to assist and guide their children in preparing for internship.

3. The College of Rehabilitative Sciences faculty members should look into the students' ability to respond to adversity and stress as a pre-requisite for internship. This will be used to determine a student's readiness to face and deal with multiple challenges they will have to face during internship. They should also use this knowledge to incorporate Adversity Quotient® in team or character building programs they offer prior to internship to prepare the students.
4. The Guidance Counselors should be aware of the students' Adversity Quotient® and perceived academic stress level, and understand how this can affect their Academic Performance, which could be done through administration of tests that could measure a student's resilience, such as the Adversity Quotient Profile®, and stress. Results of the test should be given and interpreted to the students to help them understand how this could affect their performance. They should also guide the students on how to help them deal with their difficulties in adapting to stress and adversities they are facing and will face in the future.

In the interest of future studies, the researcher would like to recommend the following:

1. To explore other variables that can possibly predict or affect academic performance
2. To explore other variables that can have a correlation with the Adversity Quotient®
3. To consider other research instruments to measure perceived academic stress of the students for the purpose of validation
4. To consider other factors that affect perceived academic stress of the students, such as emotional quotient, coping ability, and intellectual ability
5. To consider other means or instruments to measure student's academic performance aside from the GPA
6. To explore on the different stressors and characteristics of internship candidates in preparation for fieldwork training
7. To explore more on the interaction of the three constants of the occupational adaptation process to the internship candidates and how each constant is experienced differently by each individual

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Appendix A-1

TRANSMITTAL LETTER

CEBU DOCTORS' UNIVERSITY
College of Rehabilitative Sciences
Department of Occupational Therapy
#1 Dr. P.V. Larrazabal, Jr. Ave., North Reclamation, 6014
Mandaue City, Cebu City, Philippines

January 6, 2016

Enrico B. Gruet, M.D.
Vice President for Academic Affairs, Cebu Doctor's University

Dr. Gruet:

Greetings!

We, Shyde Capuras, May Valerie Engada, Homer Joseph Inoferio, and Iris Elline Querubin, students of Cebu Doctor's University - College of Rehabilitative Sciences, Department of Occupational Therapy, are planning to conduct a study entitled, *"Adversity Quotient and Perceived Academic Stress as Predictors of Academic Performance of CDU-CRS Internship Candidates"*. The variables of the study are the student's adversity quotient, their perceived academic stress and their academic performance.

The Adversity Quotient (AQ), developed by Dr. Paul G. Stoltz, is a new variable that measures an individual's resiliency or response to adversity. This variable can help predict if one will succeed or fail in their chosen endeavours. The results of this study will be used as a basis for an adversity response enhancement program to help students' academic performance.

To make this research a success, we are humbly asking for your approval of the following:

1. We would like to ask for your permission to conduct our study in Cebu Doctors' University.
2. We would also like for your permission to allow us to include all the regular fourth year students of the Department of Occupational Therapy, Physical Therapy and Speech-Language Pathology and the regular third year students year of the Department of Respiratory Therapy officially enrolled in the second semester of the academic year 2015-2016 as the respondents of our study.
3. We would like to request that we be granted 30-45 minutes of the students' time for the administration of our research instruments:
   - ***Perceived Academic Stress Scale (PASS)***, developed by Phoebe Marie B. Amit, OTRP and Maria Fe F. Abejar, RPsyc, to measure the students' level of perceived academic stress.
   - ***Adversity Quotient Profile (AQ®)***, developed by Dr. Paul G. Stoltz, to measure the students' level of Adversity Quotient.
4. Since our study also considers the students' academic performance as a variable in the study, we would like to request that we be allowed to obtain a copy of the students' midterm grade for each of their subjects taken.
5. We would also like to request that we be able to coordinate with the advisers with regard to setting a schedule for the administration of the questionnaires that is most beneficial for all parties involved and with regard to the students' midterm grades.
6. **As part of the contract we have signed with PeakLearning, the company governing the use of the Adversity Quotient Profile, we would like to ask for your permission to allow us to send all data**

gathered in this study to the company for them to be able to further evaluate and validate the Adversity Quotient Profile.

We assure you that the information and results that will be gathered in this research will be held with utmost confidentiality. Also, prior to the administration of the questionnaires mentioned, the students will be given an informed consent form wherein the objectives of the study, as well as the risk and benefits of it, will be discussed. They will also be informed of their right to withdraw from the study should they wish to and assure them of the confidentiality of the results.

Attach at the back of this letter is a copy of our signed contract between PeakLearning, and a copy of our research instrument, the Perceived Academic Stress Scale (PASS). Since our contract prohibits the duplication of the Adversity Quotient Profile (AQ®) in any kind, we regret to inform you that a copy of the AQ Profile could not be provided.

We are hoping for your kind consideration and approval.

Respectfully yours,

Shyde B. Capuras
Researcher

May Valerie R. Engada
Researcher

Homer Joseph T. Inoferio
Researcher

Iris Elline M. Querubin
Researcher

Endorsed by:

Daisy Jane A. Bolahon, OTRP, OTR/L
Research Mentor

Karla Mae Sagun-Tumulak, OTRP, OTR
Research Coordinator

Noted by:

Karla Mae Sagun-Tumulak, OTRP, OTR
Chair, Department of Occupational Therapy

Renald Peter T. Ramiro, M.D., FPARM, DPBRM
Dean, College of Rehabilitative Sciences

Recommending Approval:

Maria Fe F. Abejar, RPsyc
Head, Research Office

Approved by:

Enrico P. Gruet, M.D.
Vice President for Academic Affairs, Cebu Doctors' University

Appendix A-2

TRANSMITTAL LETTER

CEBU DOCTORS' UNIVERSITY
College of Rehabilitative Sciences
Department of Occupational Therapy
#1 Dr. P.V. Larrazabal, Jr. Ave., North Reclamation, 6014
Mandaue City, Cebu City, Philippines

February 1, 2016

Prince Kempoy Uy, OTRP
4th Year Level Adviser, Occupational Therapy

Mr. Uy:

Greetings!

We, Shyde Capuras, May Valerie Engada, Homer Joseph Inoferio, and Iris Elline Querubin, students of Cebu Doctor's University - College of Rehabilitative Sciences, Department of Occupational Therapy, are conducting a study entitled, *"Adversity Quotient and Perceived Academic Stress as Predictors of Academic Performance of CDU-CRS Internship Candidates"*. The variables of the study are the student's adversity quotient, their perceived academic stress and their academic performance.

The Adversity Quotient (AQ), developed by Dr. Paul G. Stoltz, is a new variable that measures an individual's resiliency or response to adversity. This variable can help predict if one will succeed or fail in their chosen endeavors. The results of this study will be used as a basis for an adversity response enhancement program to help students' academic performance.

We have chosen all the regular 4th year Occupational Therapy students as respondents for our study and to make this research a success, we are humbly asking for the following:

1. We would like to request that we be granted 30-45 minutes of the students' time for the administration of our research instruments:
   - ***Perceived Academic Stress Scale (PASS)***, developed by Phoebe Marie B. Amit, OTRP and Maria Fe F. Abejar, RPsyc, to measure the students' level of perceived academic stress.
   - ***Adversity Quotient Profile (AQ®)***, developed by Dr. Paul G. Stoltz, an online tool used measure the students' level of Adversity Quotient.
2. Since our study also considers the students' academic performance as a variable in the study, we would like to request that we be allowed to obtain a copy of the students' midterm grade for each of their subjects taken.

Because the ***Adversity Quotient Profile (AQ®)*** is an online tool given to us by the author through a special online link that expires by March 1, 2016, we will be holding our data gathering in the computer laboratory. Currently, we are still in the process of finalizing a schedule with the computer laboratory and no date has been set but we are willing to coordinate with you and inform you ahead of time when we could conduct our data gathering with your students.

Attached in this letter is the approval by the Chairman of Occupational Therapy, allowing us to include the 4th Year Occupational Therapy students for our study and the informed consent to be given to the students.

We are hoping for your kind consideration.

Respectfully yours,

Shyde B. Capuras
Researcher

May Valerie R. Engada
Researcher

Homer Joseph T. Inoferio
Researcher

Iris Elline M. Querubin
Researcher

Approved by:

Prince Kempoy Uy, OTRP
4th Year Level Adviser, Occupational Therapy

Appendix A-3

TRANSMITTAL LETTER

CEBU DOCTORS' UNIVERSITY
College of Rehabilitative Sciences
Department of Occupational Therapy
#1 Dr. P.V. Larrazabal, Jr. Ave., North Reclamation, 6014
Mandaue City, Cebu City, Philippines

February 1, 2016

Jolina Omoso, PTRP
4th Year Level Adviser, Physical Therapy

Ms. Omoso:

Greetings!

We, Shyde Capuras, May Valerie Engada, Homer Joseph Inoferio, and Iris Elline Querubin, students of Cebu Doctor's University - College of Rehabilitative Sciences, Department of Occupational Therapy, are conducting a study entitled, *"Adversity Quotient and Perceived Academic Stress as Predictors of Academic Performance of CDU-CRS Internship Candidates"*. The variables of the study are the student's adversity quotient, their perceived academic stress and their academic performance.

The Adversity Quotient (AQ), developed by Dr. Paul G. Stoltz, is a new variable that measures an individual's resiliency or response to adversity. This variable can help predict if one will succeed or fail in their chosen endeavors. The results of this study will be used as a basis for an adversity response enhancement program to help students' academic performance.

We have chosen all the regular 4th year Physical Therapy students as respondents for our study and to make this research a success, we are humbly asking for the following:

1. We would like to request that we be granted 30-45 minutes of the students' time for the administration of our research instruments:
   - ***Perceived Academic Stress Scale (PASS)***, developed by Phoebe Marie B. Amit, OTRP and Maria Fe F. Abejar, RPsyc, to measure the students' level of perceived academic stress.
   - ***Adversity Quotient Profile (AQ®)***, developed by Dr. Paul G. Stoltz, an online tool used measure the students' level of Adversity Quotient.
2. Since our study also considers the students' academic performance as a variable in the study, we would like to request that we be allowed to obtain a copy of the students' midterm grade for each of their subjects taken.

Because the ***Adversity Quotient Profile (AQ®)*** is an online tool given to us by the author through a special online link that expires by March 1, 2016, we will be holding our data gathering in the computer laboratory. Currently, we are still in the process of finalizing a schedule with the computer laboratory and no date has been set but we are willing to coordinate with you and inform you ahead of time when we could conduct our data gathering with your students.

Attached in this letter is the approval by the Chairman of Physical Therapy, allowing us to include the 4th Year Physical Therapy students for our study and the informed consent to be given to the students.

We are hoping for your kind consideration.

Respectfully yours,

Shyde B. Capuras
Researcher

May Valerie R. Engada
Researcher

Homer Joseph T. Inoferio
Researcher

Iris Elline M. Querubin
Researcher

Approved by:

02/01/16
Jolina Omoso, PTRP
4th Year Level Adviser, Physical Therapy

Appendix A-4

TRANSMITTAL LETTER

CEBU DOCTORS' UNIVERSITY
College of Rehabilitative Sciences
Department of Occupational Therapy
#1 Dr. P.V. Larrazabal, Jr. Ave., North Reclamation, 6014
Mandaue City, Cebu City, Philippines

February 1, 2016

Kimberly Rose D. Tero, RT
3rd Year Level Adviser, Respiratory Therapy

Julius Zesar Yap, RT
3rd Year Level Adviser, Respiratory Therapy

Ms. Tero and Sir Yap:

Greetings!

We, Shyde Capuras, May Valerie Engada, Homer Joseph Inoferio, and Iris Elline Querubin, students of Cebu Doctor's University - College of Rehabilitative Sciences, Department of Occupational Therapy, are conducting a study entitled, *"Adversity Quotient and Perceived Academic Stress as Predictors of Academic Performance of CDU-CRS Internship Candidates"*. The variables of the study are the student's adversity quotient, their perceived academic stress and their academic performance.

The Adversity Quotient (AQ), developed by Dr. Paul G. Stoltz, is a new variable that measures an individual's resiliency or response to adversity. This variable can help predict if one will succeed or fail in their chosen endeavors. The results of this study will be used as a basis for an adversity response enhancement program to help students' academic performance.

We have chosen all the regular 3rd Year Respiratory Therapy students as respondents for our study and to make this research a success, we are humbly asking for the following:

1. We would like to request that we be granted 30-45 minutes of the students' time for the administration of our research instruments:
    a. ***Perceived Academic Stress Scale (PASS)***, developed by Phoebe Marie B. Amit, OTRP and Maria Fe F. Abejar, RPsyc, to measure the students' level of perceived academic stress.
    b. ***Adversity Quotient Profile (AQ®)***, developed by Dr. Paul G. Stoltz, an online tool used measure the students' level of Adversity Quotient.
2. Since our study also considers the students' academic performance as a variable in the study, we would like to request that we be allowed to obtain a copy of the students' midterm grade for each of their subjects taken.

Because the ***Adversity Quotient Profile (AQ®)*** is an online tool given to us by the author through a special online link that expires by March 1, 2016, we will be holding our data gathering in the computer laboratory. Currently, we are still in the process of finalizing a schedule with the computer laboratory and no date has been set but we are willing to coordinate with you and inform you ahead of time when we could conduct our data gathering with your students.

Attached in this letter is the approval by the Chairman of Respiratory Therapy, allowing us to include the 3rd Year Respiratory Therapy students for our study and the informed consent to be given to the students.

We are hoping for your kind consideration.

Respectfully yours,

Shyde B. Capuras
Researcher

May Valerie R. Engada
Researcher

Homer Joseph T. Inoferio
Researcher

Iris Elline M. Querubin
Researcher

Approved by:

Kimberly Rose D. Tero, RT
3rd Year Level Adviser, Respiratory Therapy

Julius Zesar Yap, RT
3rd Year Level Adviser, Respiratory Therapy

Appendix A-5

TRANSMITTAL LETTER

CEBU DOCTORS' UNIVERSITY
College of Rehabilitative Sciences
Department of Occupational Therapy
#1 Dr. P.V. Larrazabal, Jr. Ave., North Reclamation, 6014
Mandaue City, Cebu City, Philippines

February 1, 2016

Viannery Dy Mabag, CSP-PASP
Acting 4th Year Level Adviser, Speech and Language Pathology

Ms. Mabag:

Greetings!

We, Shyde Capuras, May Valerie Engada, Homer Joseph Inoferio, and Iris Elline Querubin, students of Cebu Doctor's University - College of Rehabilitative Sciences, Department of Occupational Therapy, are conducting a study entitled, *"Adversity Quotient and Perceived Academic Stress as Predictors of Academic Performance of CDU-CRS Internship Candidates"*. The variables of the study are the student's adversity quotient, their perceived academic stress and their academic performance.

The Adversity Quotient (AQ), developed by Dr. Paul G. Stoltz, is a new variable that measures an individual's resiliency or response to adversity. This variable can help predict if one will succeed or fail in their chosen endeavors. The results of this study will be used as a basis for an adversity response enhancement program to help students' academic performance.

We have chosen all the regular 4th year Speech and Language Pathology students as respondents for our study and to make this research a success, we are humbly asking for the following:

1. We would like to request that we be granted 30-45 minutes of the students' time for the administration of our research instruments:
    a. ***Perceived Academic Stress Scale (PASS)***, developed by Phoebe Marie B. Amit, OTRP and Maria Fe F. Abejar, RPsyc, to measure the students' level of perceived academic stress.
    b. ***Adversity Quotient Profile (AQ®)***, developed by Dr. Paul G. Stoltz, an online tool used measure the students' level of Adversity Quotient.
2. Since our study also considers the students' academic performance as a variable in the study, we would like to request that we be allowed to obtain a copy of the students' midterm grade for each of their subjects taken.

Because the ***Adversity Quotient Profile (AQ®)*** is an online tool given to us by the author through a special online link that expires by March 1, 2016, we will be holding our data gathering in the computer laboratory. Currently, we are still in the process of finalizing a schedule with the computer laboratory and no date has been set but we are willing to coordinate with you and inform you ahead of time when we could conduct our data gathering with your students.

Attached in this letter is the approval by the Chairman of Speech and Language Pathology, allowing us to include the 4th Year Speech and Language Pathology students for our study and the informed consent to be given to the students.

We are hoping for your kind consideration.

Respectfully yours,

Shyde B. Capuras
Researcher

May Valerie B. Engada
Researcher

Homer Joseph T. Inoferio
Researcher

Iris Elline M. Querubin
Researcher

Approved by:

Viannery By Mabag, CSP-PASP
Acting 4th Year Level Adviser, Speech and Language Pathology

Appendix A-6

TRANSMITTAL LETTER

CEBU DOCTORS' UNIVERSITY
College of Rehabilitative Sciences
Department of Occupational Therapy
#1 Dr. P.V. Larrazabal, Jr. Ave., North Reclamation, 6014
Mandaue City, Cebu City, Philippines

Phoebe Marie B. Amit
Cebu Doctor's University
Mandaue City, Cebu

Ms. Amit:

Greetings!

We, the students of Cebu Doctor's University - College of Rehabilitative Sciences, Department of Occupational Therapy, are planning to conduct a study entitled, "A Study on the Adversity Quotient of CDU-CRS Candidates for Internship in Relation to Students' Stress as Predictors of Academic Performance: A Basis for Adversity Response Enhancement Program for Students." This is in partial fulfilment of the requirements for the Degree of Bachelor of Science in Occupational Therapy.

In line with this, we have chosen your modified version of the Perceived Stress Scale, the Perceived Academic Stress Scale, to help us identify the level of perceived academic stress of students. We have found your version in a copy of your thesis in the Cebu Doctor's University - Main Library.

Regarding this matter, we would like to ask for your permission to allow us to use your instrument for our research. If an agreement is needed, we are willing to comply to the necessary processes to use the tool. We would also appreciate additional guidelines and information on how to go about it.

We are hoping for your kind consideration and approval.

Respectfully yours,

Homer Joseph T. Inoferio
Research Group Leader

Approved by:

Phoebe Marie B. Amit, OTRP
Author, Perceived Academic Stress Scale

Maria Fe F. Abejar, RPsych
Head, CDU Research office

Appendix A-7

TRANSMITTAL LETTER

October 21, 2015

AQ Profile® Official Research Agreement

By signing this document, I agree to

1. Use the AQ Profile® for only the research project I have proposed to, and which has been approved by Dr. Paul Stoltz, CEO of PEAK Learning, Inc.
2. Not use the AQ Profile® for any monetary gain
3. Not to duplicate the AQ Profile® for any purpose except for the approved research
4. Not to allow anyone else to duplicate the AQ Profile®
5. Return or destroy the original AQ Profile® to PEAK Learning, Inc. once my research is complete
6. Share all AQ® data and a copy of my study with PEAK Learning, Inc.
7. Have my name and paper posted on the Global Resilience Institute/PEAK Learning web page
8. Not to include the AQ Profile® in research paper or appendix
9. Use the symbol ® whenever I mention AQ®, Adversity Quotient®, and AQ Profile® in any written form
10. Protect PEAK Learning's intellectual property to the best of my ability

Shyde Capuras — October 26, 2015 (DATE) — May Valerie Engada

Homer Joseph Inoferio — Iris Elline Querubin

Please sign and fax back to the attention of Katie Martin, 805-595-7771, OR scan and email the pdf to katie@peaklearning.com.