Predictive power of grit and emotional intelligence on research anxiety experience of students

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ABSTRACT

Research anxiety is one critical factor that may hinder the research activities of students, and variables like grit and emotional intelligence are factors that may exert influences on anxiety levels as well as the research performance of students in the tertiary institution. Thus the study looked into the predictive power of grit and emotional intelligence on the research anxiety experience of tertiary education students. It adopted the correlational research design. To direct the study, three null hypotheses and three research questions were developed. The study's population included all 5,765 undergraduate students at the University of Port Harcourt. A sample of 294 was drawn using stratified random sampling. The Research Anxiety Questionnaire, Emotional Intelligence Appraisal, and the Grit Scale were the instruments used. The validity of these tools was guaranteed. The Cronbach alpha method obtained high-reliability coefficients for the three instruments. Data were analyzed using simple and multiple regressions. The result revealed that grit and emotional intelligence independently and jointly significantly predict the research anxiety experience of students in tertiary education. Considering findings, it was suggested that students in tertiary education receive training that focuses on developing both their grit and emotional intelligence. This essential training could help students to become more resilient in the face of challenges and setbacks, as well as better equipped to manage their emotions in high-pressure academic situations.

Keywords: *Emotional intelligence, Grit, Research anxiety, Research, Students, Tertiary education.*

Highlights of this paper

- The paper highlights the anxiety students experience when undertaking research in tertiary institutions despite the benefits research provides.
- It identifies grit and emotional intelligence as variables that can impact anxiety levels and research performance.
- Training students to be gritty and emotionally intelligent can significantly reduce research anxiety in tertiary education.

1. INTRODUCTION

Research is an indispensable tool in the lives of man. It focuses on the logical, systematic, and objective gathering, analysis, synthesis, evaluation, and recording of events, observations, and principles to address man's challenges (Kpolovie, 2010). Adopting a similar approach, Adebola (2018) stated that research is a critical, purposeful and organized inquiry into a phenomenon in order to solve human problems. The central role of research according to Nwana (2010) is to develop framework for addressing human problems and challenges.

Research is the bedrock of human development. Beyond the development of knowledge, research also has the capacity to empower individuals to become critical thinkers as well as provide practical solutions to problems confronting humanity. The significance of research competencies in the life of any student cannot be over-emphasized. Students are expected to not only show a long-term commitment towards academic activities, but also to exhibit research-based competence for life-long learning. It is based on this that students in tertiary education at any level are required to conduct independent research which not only has the capacity to improve their academic success in school, but also provide them which essential skills and competencies that can enable them think critically and undertake practical inquiry to solve problems; that is, the demands of presenting research papers and participating in various types of research are essential for achieving any successful tertiary education. However, this has been significantly limited by the level of anxiety students experience as it relates to research, especially undergraduate students. That is, despite these benefits, there seem to be considerable anxiety among students to undertake independent research among students in tertiary education in many parts of the world.

This is so as many tertiary students occasionally find themselves confronted with novel and difficult material as they are suddenly introduced to entirely new concepts, frequently accompanied by mathematically based ideas, having higher amount of work to complete, this is in additional to working on individual research projects; all these are likely to cause stress, uncertainty, and anxiety (Murtonen & Lehtinen, 2003; Papanastasiou & Zembylas, 2008; Wilson, 2001). Therefore, it is not surprising that some students experience anxiety before starting their research projects and research methods classes. Most students do not really understand what research methods and research projects are about, this is further exacerbated by the fact that some students find research methods courses to be overwhelming and have trouble grasping the concepts that are covered. In addition, many students are unsure of why they are required to take these courses and what value they will actually have in professional careers (Lodico, Spaulding, & Voegtlee, 2004; Murtonen & Lehtinen, 2003; Pan & Tang, 2004; Papanastasiou & Zembylas, 2008; Wilson, 2001; Wilson & Onwuegbuzie, 2001).

Research anxiety, as defined by Erfanmanesh and Didegah (2012) is the experience of fear and uncertainty related to the conduct and production of genuine scientific research. It is any emotion of anxiety and distress experienced during the process of producing new scientific knowledge, choosing a topic for publication in a scientific journal, or receiving feedback from the scientific community afterward (Ashrafi-Rizi et al., 2014). It also refers to the aspects or activities of research work that a student finds uncomfortable and which negatively affect him or her to the point where their efficiency may be reduced (Higgins & Kotrlik, 2006). Research anxiety simply refers to feeling of dread and tension when dealing with research related activities. Onwuegbuzie (1997) described

research anxiety as a multidimensional mechanism that includes library anxiety, statistical anxiety, composition anxiety, and research process anxiety in his pivotal study on the topic.

Only recently has it been discovered that enormous number of learners and some faculty members experience research anxiety within the tertiary education system according to research (Ashrafi-Rizi et al., 2014; Bayar, Bayar, Eğmir, Ödemiş, & Kayir, 2013; Einbinder, 2014; Merç, 2016; Onwuegbuzie, 1997; Rezaei & Zamani-Miandashti, 2013; Saracaloğlu, 2008; Wajid & Jami, 2020). As such the concept of research anxiety is only beginning to take relevance in undergraduate and post graduate research. Research activities as earlier mentioned, remains one endeavour that sadly, most students especially at the undergraduate level approach with so much anxiety. Some of the consequences of research anxiety include the following; feeling of despair for those who see it as a challenge which can never be overcome, avoidance of research related activities, lack of critical reading skills or inability to understand research findings in their professional careers, contracting of research work to other individuals to write, difficulty pursuing further studies, underachievement in both classroom and field-based research course, inferior quality and quantity of scientific literature and production, poor job performance, poor physical and emotional health, burnout, heightened anxiety, feeling of dread and apprehension, long-term bodily and behavioural issues, inability to master research concepts, delay or inability to obtain desired degree, abandonment of thesis/dissertation, inability to enjoy the benefits that research and its related activities have to offer, prevention of fresh graduates from entering into research related jobs, procrastination, feeling of insufficiency and uneasiness and the likes (Ashrafi-Rizi et al., 2014; Davis-Roberts, 2006; Merç, 2016; Obaseki & Agu, 2019; Onwuegbuzie & Jiao, 1998; Papanastasiou & Zembylas, 2008; Rezaei & Zamani-Miandashti, 2013; Sevidy-Benton & O'Kelly, 2015).

Students in tertiary education going through this kind of experience is worrisome, this is due to the crucial role of research and critical thinking for significant academic success, professional development, day-to-day success, and success in general. Thus Mansourian (2012) opined that consideration should be given to research anxiety, which hinders researchers during the research process, and efforts should be made to identify, prevent, and treat it. It is therefore very crucial that considerable attention be given to this field that has not enjoyed the much attention that it deserves. This is becoming very paramount as although the problem of research anxiety has been on the research agenda of scholars and practitioners, it has seen comparatively little published research especially as it relates to the factors that influences or predicts it. Some of the factors that have been introduced in literature from research as influencing and contributing to research anxiety include; the research process, the affective and cognitive aspects of study (Kracker, 2002) factors from the individual, organisational, and research skills (Higgins & Kotrlik, 2006) the challenge of conducting individual research projects and mastering the research material taught in class (Wilson & Onwuegbuzie, 2001) gender, level of learning, experience with publications, and research self-efficacy (Merç, 2016) views about research (Papanastasiou & Zembylas, 2008) the chance to work with librarians one-on-one (Brinkman & Hartsell-Gundy, 2012) using reading strategies while gathering information from various sources, and disapprovals from supervisor (Wajid & Jami, 2020) hybrid online class (Einbinder, 2014) faculty members educational background, number of years spent teaching in higher education, and work setting (Ashrafi-Rizi et al., 2014) research prowess, knowledge of research techniques, mathematics, and statistics; computer, Internet, and library literacy; financial and institutional support; stress and time management skill sets (Erfanmanesh & Didegah, 2012). Other studies on research anxiety include those that dealt with attitude and research anxiety, Butt and Shams (2013); Saracaloğlu (2008) time management skills and research anxiety (Akcoltekin, 2015) research-related attitude as well as research self-efficacy and achievement scores (Maschi, Wells, Yoder Slater, MacMillan, & Ristow, 2013; Obaseki & Agu, 2019; Razavi, Shahrabi, & Siamian, 2017; Rezaei & Zamani-Miandashti, 2013).

From the analysis of the researches carried so far on in the field of research anxiety in tertiary institution, there seems to be very much study on non-psychological factors, few study on psychological factors and almost non on psychological factors like emotional intelligence and grit. That is research on variables like grit and emotional intelligence as it relates to research anxiety of university is almost non-existent, this therefore created a significant gap that needed to be filled.

The concept of grit has only recently begun to take the centre stage in educational research. According to the concept developed by Duckworth and colleagues, interest in grit came from the realization that beyond cognitive capacities, the impact of non-cognitive factors on students' learning experience cannot be overlooked. The relatively new introduction of the concept of grit has made it a fertile area of interest for researchers seeking to develop a better understanding of what influences or increases students' school achievement as well as performance in the area of research activities. As a comparatively new concept, grit articulates the theorem that a person combines passion and perseverance to achieve long-term goals. Grit is defined as perseverance and passion for long-term goals (Duckworth, Peterson, Matthews, & Kelly, 2007). It places a focus on long-term tenacity, where effort and interest are sustained over a long period of time (Duckworth, Kirby, Tsukayama, Berstein, & Ericsson, 2011; Duckworth et al., 2007; Soutter & Seider, 2013). According to Duckworth et al. (2007) grit involves putting forth a lot of effort while facing obstacles, and continuing to put forth effort and interest over time despite obstacles, setbacks, and progress plateaus. The trait of grit is possible to be produced as a characteristic (Duckworth, 2016).The gritty individual not only completes the task at hand but also works diligently towards a specific goal over a period of time. They think about the aspects of their lives that they can change rather than those they cannot. They also prefer to deal effectively with on-going stressful situations and work to address these situations directly and proactively. In difficult times and situations, they make great efforts towards their long-term goals (Duckworth et al., 2011; Maddi et al., 2013; Özer, 2021).

This trait of grit is highly essential for any research endeavour. Grit might be related to the completion of research activities and might even be responsible for the success of academic programmes. This could be so given that academic success is a long-term goal that requires students to devote time and regulate themselves to overcome challenges, grit motivates students to engage in academic tasks, which leads to increased academic achievement and overall academic success. Few studies have been able to establish that grit Grit is strongly associated with depression, anxiety, and stress, as well as academic success (Beyhan, 2016; Özhan & Boyacı, 2018; Reraki, Celik, & Saricam, 2015) but not research anxiety.

Research as an endeavour carried out in tertiary institutions often requires perseverance and dedication to long term activities. It is complicated by the presence of extraneous factors such as limited finance, lack of supportive peers and supervisors, inadequate materials for review and difficult data collection procedures amongst others. It is the concern among students regarding such challenges that often results in research anxiety. From the foregoing, it is clear that the quality of grit is very likely to influence research-based activities.

Another non-cognitive factor that can be related to research anxiety is emotional intelligence. The term "emotional intelligence" refers to a set of abilities that enable a person to use emotion to adapt, perceive, understand, and control their moods, as well as to use emotional data to sharpen their cognitive and logical reasoning. Goleman (2004) defined emotional intelligence as "the ability to be aware of and to handle one's emotions in varying situations. He stated that emotional intelligence is influenced by a variety of factors or skills. These elements are derived from his Emotional Competence Theory. This theory includes four competencies that are further segmented into twenty competencies, which include: Self-Awareness (the ability to recognise one's own internal states, preferences, resources, and intuition), Self-Management (the ability to manage one's internal states,

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impulses, and resources), Social Awareness (the ability to effectively handle relationships), and Relationship Management (the ability to manage and regulate one's emotions).

Goleman (2005) argued that success in academic tasks does not only involve the mental aspects of human capabilities, but also integrates the effective utilization of personal and social capabilities. These capabilities are also very likely to play a key role in research activities that university students undertake (Goleman, 2004). Individuals are thought to differ in their capacity to perceive, process, and manage information that is not emotional in nature. Therefore, understanding current emotional aspects of one's life is probably more crucial than previously believed. Literature review has not been able to yield any studies on emotional intelligence and research anxiety. Literature available related to this has been on studies on emotional intelligence and its association between stress and coping styles (Deniz & Yilmaz, 2006) managing stress and anxiety (Al Demerdash, 2012) emotional intelligence and academic success (Barchard, 2003; O'Connor Jr & Little, 2003; Parker, Creque Sr, et al., 2004; Parker, Hogan, Eastabrook, Oke, & Wood, 2006; Parker, Saklofske, Wood, Eastabrook, & Taylor, 2005; Parker, Summerfeldt, Hogan, & Majeski, 2004; Suleman et al., 2019). Although it is believed that students with high emotional intelligence ought to be more capable of handling research based activities and not have anxiety concerning research

People with high emotional intelligence exhibit characteristics similar to gritty people, such as making every effort to be efficient and effective, not being afraid to take on more difficult tasks, and dealing with difficulties more easily. Studies on grit and emotional intelligence has been able to establish a connection between these two factors (Ain, Munir, & Suneel, 2021; Browne, 2017; Hamilton, 2020; Özer, 2021; Resnik, Moskowitz, & Panicacci, 2021) however not in relation to research anxiety, an angle and a gap this study intends to fill.

From the foregoing, the centrality of these two non-cognitive factors in the initiating and sustaining behaviour cannot be overemphasized especially as it relates to its influence and predictive power on research activities that might lead to anxiety. As previously stated, no study has been found in the literature to establish that the two factors of grit and emotional intelligence have been examined together in relation to research anxiety. As a result, the current study is being conducted to investigate the predictive power of grit and emotional intelligence on the research anxiety experience of students in tertiary education.

To direct this research, the following research questions were developed:

1. To what extent does grit predict research anxiety among students in tertiary education?
2. To what extent does emotional intelligence dimension (self-awareness, self-management, social awareness, relationship management) independently predict research anxiety among students in tertiary education?
3. To what extent does grit and emotional intelligence jointly predict research anxiety students in tertiary education?

The following null hypotheses were tested at 0.05 level of significance:

1. Grit does not have any significant prediction on research anxiety experience of students in tertiary education.
2. Emotional intelligence dimensions (self-awareness, self-management, social awareness, relationship management) independently does not have any significant prediction on research anxiety experience of students in tertiary education.
3. Grit and emotional intelligence jointly does not have any significant prediction on research anxiety experience of students in tertiary education.

2. METHODOLOGY

2.1. Research Design

The correlation design by multiple prediction was used as the research design for the study. According to Kpolovie (2010) correlation research is a method used to determine the strength and direction (positive or negative) of a relationship between a dependent variable (also known as a criterion variable) and one or more independent variables (predictor variable). The multiple prediction design was used in this one. This high order correlational research design examines the relationship between one dependent variable and two or more independent variables using the least-squares associate principle (Kpolovie, 2010).

2.2. Population of the Study and Sampling Technique

The population of the study was all 5,765 undergraduate students in University of Port Harcourt in the 2020/2021 academic session. A sample of 294 was drawn using disproportionate stratified random sampling based on gender.

2.3. Instrument for Data Collection

An instrument package containing three instruments was used for data collection. There were two sections labelled A and B in the instrument package. The purpose of the instrument's section A was to gather demographic data from the respondents, such as their gender, age, level of education, and so on. There were three parts in Section B. Part A was focused on ascertaining the research anxiety of undergraduate students using the Research Anxiety Questionnaire. (RAQ). This questionnaire was adapted from Research Anxiety Rating Scale by Onwuegbuzie (2013). This section had items that were modified to suit the sample of the current study. Respondents are asked to rate items on the scale from 1 to 4 for each of the scale's subcategories. High score on this instrument indicated high level of research anxiety and low scores otherwise. The second instrument was an adapted Emotional Intelligence Appraisal that was based on Goleman's model of Intelligence. This instrument was designed to assess students' emotional intelligence. The items assessed the four key elements of Daniel Goleman's model of emotional intelligence (self-awareness, social awareness, self-management, and relationship management). High scores show that an individual has high emotional intelligence and low scores shows low emotional intelligence. The third instrument was the adapted 12 item Grit scale by Duckworth and Quinn (2009). This section assessed the grit of the respondents. This section's design was based on a five-point scale of Very much like me, Mostly like me, Somewhat like me, Not much like and me Not like me at all. The responses are assigned 5,4,3,2 and 1 as scoring for positively stated items and the reverse for negative items. High scores show that an individual is gritty while low scores shows otherwise.

2.4. Validity and Reliability of the Instruments

Although, the instruments have been validated by the developers of the instruments from whom they were adapted from, validity and reliability were re-established to suit the current study. To ascertain the face and content validity of the instrument, draft copies of the instruments were given to experts in measurement and evaluation and educational psychology alongside with the research questions and hypothesis of the study to assess the instrument's content, usefulness, thoroughness, clarity, and literacy requirements. Their comments and corrections were incorporated into the instrument's final version. The Cronbach alpha method of internal consistency was used to estimate the instruments' reliability and construct validity. On a sample of 30 respondents, these instruments were pilot tested. Each item on the test was evaluated for quality and selection in accordance with the Cronbach alpha

method. Based on the inter-item analysis and item total statistics, items were included in the final instrument. For Research Anxiety Questionnaire, Cronbach Alpha reliability of .62 was obtained, for Emotional intelligence, 0.70, was obtained, for Grit Scale, a Cronbach Alpha reliability of .76 was obtained for the current study.

2.5. Method of Data Analysis

Beta values, simple and multiple regressions Analysis of Variance, ANOVA associated with multiple regression, and t-test associated with simple regression were used to analyse the data. At 0.05 level of significance, each hypothesis was tested.

3. RESULTS

Research Question One: To what extent does grit predict research anxiety among students in tertiary education?

Table 1. Simple regression analysis of the prediction of grit on research anxiety.

R	R square	Adjusted R square
0.246	0.061	0.058

According to the result shown in Table 1, a simple linear regression R-value 0.246 was obtained with a R^2 value of 0.061 and an adjusted R^2 of 0.058 gotten when grit was used to predict the research anxiety of students. This table shows an R of .246 which shows that there is a relationship between grit and research anxiety, an R^2 change of 0.061 which means that 6.1% of the proportion of variation in research anxiety can be explained, accounted or attributed to grit.

Hypothesis one: Grit does not have any significant prediction on research anxiety experience of students in tertiary education.

Table 2. T- test associated with simple regression analysis of the prediction of grit on research anxiety.

Model	Unstandardized coefficients		Standardized coefficients	T	Sig.
	B	Std. error	Beta		
(Constant)	1.575	0.144	0.246	10.934	0.000
Grit	0.288	0.066		4.361	0.000

The Table 2, shows a beta of 0.246, t-value of 4.381 and a sig of. 000. B = 0.246, t = 10.93 which was significant at 0.05 alpha level, t= 4.361, p=0.000(p < 0.005). The null hypothesis of grit not having any significant prediction on research anxiety experience on students in tertiary education is therefore rejected and the alternate accepted. This result indicates that grit has a significant prediction on the research anxiety experience of students in tertiary education.

Research Question Two: To what extent does emotional intelligence dimension (self-awareness, self-management, social awareness, relationship management) independently predict research anxiety among students in tertiary education?

Hypothesis two: Emotional intelligence dimensions (self-awareness, self-management, social awareness, relationship management) independently does not have any significant prediction on research anxiety experience on students in tertiary education.

Table 3. Regression analysis of the independent predictions of emotional intelligence dimension (self-awareness, self-management, social awareness, relationship management) on research anxiety of students in tertiary education.

Model	R	R square	B	T	Sig
Self-awareness	0.278	0.077	0.278	4.954	0.000
Self-management	0.033	0.001	0.033	0.569	0.570
Social-awareness	0.218	0.048	0.218	3.838	0.000
Relationship-management	0.097	0.009	0.097	1.679	0.094

According to the results in Table 3, self-awareness has an R-value of.278 indicating that there is a relationship between self-awareness and research anxiety, and an R2 change of.077 indicating that self-awareness accounts for 7.7% of the proportion of variation in research anxiety. It shows that self-management has an R-value of.033, indicating that there is a relationship between self-management and research anxiety, and an R2 change of.001, indicating that self-management accounts for only 0.1% of the proportion of variation in research anxiety. It shows an R-value of.218 for Social-awareness, indicating a relationship between Social-awareness and research anxiety, and an R2 change of 0.48, indicating that Social-awareness accounts for 4.8% of the proportion of variation in research anxiety. Relationship-management has an R-value of.097, indicating that there is a relationship between Relationship-management and research anxiety, and an R2 change of.009, indicating that Relationship-management accounts for only 0.9% of the proportion of variation in research anxiety. The table also shows the relative prediction of each dimension of emotional intelligence on research anxiety. It shows that self-awareness had the highest contribution with a beta value of.278, which was followed by social-awareness with a beta value of.218, relationship management with a beta value of 009, and self-management with a beta value of.033.

Again the table revealed the computed t-test value associated with regression of the independent contribution of the emotional intelligence dimensions on research anxiety. It shows that self-awareness has B = 0.278, t= 4.954, p=0.000(p < 0.005), which is significant. It shows that social-awareness has B= 0.218, t= 3.838, p=0.000(p < 0.005), which is significant, relationship management has B = 0.097, t= 1.679, p=0.094(p > 0.005) which is not significant and then self-management which has B = 0.033, t= 0.569 p=0.570(p > 0.005) which is not significant. This result shows that both self-awareness and social-awareness independently significantly predicts research anxiety while relationship-management and self-management do not independently significantly predicts research anxiety.

Research Question Three: To what extent does grit and emotional intelligence jointly predict research anxiety experience of students in tertiary education?

Table 4. Multiple regression analysis of the joint prediction of grit and emotional intelligence of research anxiety experience of students in tertiary education.

R	R square	Adjusted R square
0.272	0.074	0.067

Table 4 shows that the multiple regression coefficient was 0.272, with a coefficient of determination (R2) of 0.074 and an adjusted R2 of 0.067. This table shows an R of.272 indicating a relationship between grit, emotional intelligence, and research anxiety, as well as an R2 change of.074 indicating that 7.4% of the proportion of variation in research anxiety can be attributed jointly to grit and emotional intelligence.

Hypothesis three: Grit and emotional intelligence do not have any significant prediction on research anxiety experience on students in tertiary education

Model		+Sum of squares	Df	Mean square	F	Sig.
1	Regression	2.244	2	1.122	11.672	0.000
	Residual	28.164	293	0.096	S	
	Total	30.408	295			

ANOVA associated with multiple regression as shown in Table 5 reveals that F − value of 11.672 df = (293) P. 000 <.05. Therefore the null hypothesis that grit and emotional intelligence jointly does not have any significant prediction on research anxiety experience on students in tertiary education is rejected and the alternate accepted. This implies that grit and emotional intelligence jointly significantly predicts research anxiety experience of students in tertiary education.

4. DISCUSSION OF FINDINGS

Result shows that grit significantly predicts the research anxiety experience of students in tertiary education. This is not surprising considering that research as an endeavour carried out in tertiary institutions by students often requires time, interest, perseverance and dedication to conquer the various challenges associated with this long term activity. Grit which encompasses the afore mentioned qualities triggers students to engage in these research tasks despite its difficulties, which leads to dealing with the anxiety experiences linked with research activities. As earlier stated research work on grit and research anxiety is somewhat scarce. Though somewhat related to this finding is the study of Özhan and Boyacı (2018) which shows that grit is significantly related to depression, anxiety and stress.

The result further shows that although all the dimensions of emotional intelligence were able to predict research anxiety, both self-awareness and social-awareness independently significantly predicts research anxiety while relationship-management and self-management did not independently significantly predicts research anxiety. These predictions can be understood as success in research activities does not only involve the mental aspects of human capabilities, but also the effective utilization of personal and social capabilities which is what emotional intelligence entails. As such emotional intelligence which is not just about emotions, but more about information and integrating it with thoughts and actions plays a role in enabling tertiary education students better able to handle research based activities and not have anxiety concerning research. Literature available closely related to this finding are those of Parker, Duffy, Wood, Bond, and Hogan (2005); Parker, Creque Sr, et al. (2004), and Parker, Austin, Hogan, Wood, and Bond (2005) who found that various emotional intelligence dimensions were significant predictors of academic success. Also a bit related was the study by Deniz and Yilmaz (2006) who discovered a significant link between emotional intelligence and coping styles and that by Al Demerdash (2012) who found a significant relationship between Emotional Intelligence and the variables of stress and anxiety.

Findings indicate that grit and emotional intelligence jointly significantly predicts research anxiety experience of students in tertiary education. This is not surprising given that the characteristics of people with high emotional intelligence, such as making every effort to be efficient and effective, not being afraid to take on more difficult tasks, dealing with difficulties, and so on, are very similar to those of gritty people, and both traits are essential for successful research-related activities as well as dealing with the anxieties that come with it. Divergent or convergent results on grit and emotional intelligence jointly predicting research anxiety of students has not been identified in literature only result from studies on grit and emotional intelligence has been identified. Studies like that of Hamilton (2020) which shows that that there is a connection between emotional intelligence and grit is one of such. Another is the study by Özer (2021) which revealed that a moderately strong association is found between

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emotional intelligence and grit. Also somewhat in agreement with the outcome of this study are findings on the influence of non-cognitive factors like attitude, attitude towards research, achievement scores time management skills, research self-efficacy, professional experience and educational preparations, supervisor's dissatisfaction, metacognitive awareness of reading strategies and research self-efficacy, on research anxiety (Akcoltekin, 2015; Ashrafi-Rizi et al., 2014; Butt & Shams, 2013; Maschi et al., 2013; Merç, 2016; Obaseki & Agu, 2019; Razavi et al., 2017; Rezaei & Zamani-Miandashti, 2013; Saracaloğlu, 2008; Wajid & Jami, 2020).

5. CONCLUSION

It is concluded that grit significantly predicts research anxiety, the dimensions of emotional intelligence were able to predict research anxiety with two of the dimensions significantly predicting research anxiety and the other two not. Jointly grit and emotional intelligence were able to predict significantly research anxiety experience of students in tertiary education. The outcome of this research finding that can be extended theoretically, empirically and functionally to literature as it fills a missing gap since there is no literature on predictions of grit and emotional intelligence on research anxiety.

Based on findings, interventions can be carried out in order to deal with research anxiety experience both in prevention and managing. Students in tertiary education can be trained to be gritty as already suggested by literature and also to be emotionally intelligent. This can be achieved via counselling, seminars, workshops and the likes. These trainings could help students become more resilient in the face of challenges and setbacks, as well as better equipped to manage their emotions in high-pressure academic situations. By improving their ability to persevere and manage their emotions, students may be able to reduce their levels of research anxiety and achieve greater academic success. This is paramount as research related activities are indispensable in the lives of students in tertiary education and no student can escape from it.

Although, the research was able to achieve its aim, the research is limited by not using a very large sample size as well the sample characteristics limited to male and female undergraduate students from a federal government owned tertiary institution. Although the following limitations notwithstanding, a representative sample was obtained and the findings were not affected and thus valid generalization is enabled.

It is suggested that similar study be carried out using a larger sample size, a more heterogeneous demographics and the influence of other non-cognitive factors on the dependent variable.

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