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ORIGINAL PAPER

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The Relationship Between Research Anxiety and Self-Efficacy

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ABSTRACT

Aim of the study: The aim of this research was to study of the relationship between research anxiety and self-efficacy from viewpoints of students at the Islamic Azad University (Babol Branch). **Methods:** The present study is applied research which using a survey and has done by descriptive approach. The study sample included of MA and PhD Students of which 312 were selected Stratified randomness at Islamic Azad University (Babol Branch). The instrument used for data collection, including two standard questionnaires, General Self-Efficacy Questionnaire and research anxiety Inventory. For data analyzing used, Linear regression test and analysis of variance. **Findings:** Multiple correlation coefficient between the variables is equal to $R=0.385$, which represents the correlation between variables (self-efficacy and research anxiety). The significance level for research anxiety was calculated less than the error rate is calculated, therefore, it can be considered a good predictor for efficacy. Gender and education variables due to the attention of higher levels of predictive cannot be considered so significant for efficacy **Conclusion:** There is a significant negative relationship between research anxiety and self-efficacy. There is no relationship between demographic characteristics and self-efficiency. **Keywords:** research anxiety, self-efficacy, students.

correct research in different aspects of community as well as medical sciences can be a way to resolve many problems (5). One of the most common anxieties in higher education is research anxiety (6). Attrition from doctoral programs in education is assessed at nearly 50%, as compared to 10% for business and law programs. Such a high rate would not be acceptable at the secondary level and would prove economically and otherwise unsustainable in professional schools. This rate should be of no less apprehension for doctoral degree granting programs in education. Moreover, of the 50% who drop out of educational doctoral programs, about 20% relinquish at the dissertation stage (7, 8). At present, doctoral students should have the ability to understand and produce research, but for at all reasons, many surrender after several years of struggle and a substantial savings of time and money. Failure at this point is not only painful and exclusive for the student, but also disheartening for the faculty involved, and harmful to the institution's status (9). Mabvuure (2012) stated that, in many conversations I have had with doctors who are confined in the blockage between basic medical or surgical and specialty training, many wished they had boarded on research earlier in their careers. Such is the importance of research that entry into a competitive specialty is almost impossible without evidence of prior participation. Research participation can, therefore, be a good way of proving one's interest in a specialty and standing out at interviews and selection centers (10). Mabvuure (2012) in an article entitled: "Twelve tips for introducing students to research and publishing: a medical student's perspective" gives educators 12 tips on guidance that might help encouraged medical students when starting their research careers. These tips are based on answers to the questions I had when I started out in research. The 12 tips are: a) Educate students on the benefits of research; b) Encourage students to take the initiative to create opportunities for themselves; c) Encourage students to

1. INTRODUCTION

Universities have the responsibility towards production, transmission of knowledge and the delivery services to society. In order to perform these three duties, must conduct scientific research. Staffs working in research centers have the most important role in this field, and without their detailed assessment, review of research in this respect is not possible (1). The research is considered the most important and the most keys of development of any country (2-4). Performing

undertake extracurricular research; d) Encourage students to network with other researchers; e) Encourage students to engage with student-selected components of their courses; f) Encourage students to apply for summer research programs; g) Encourage students to attend scientific conferences; h) Advise students to consider intercalated degrees; i) Encourage students to do research during elective placements; j) Make students aware of the MBPhD courses; k) Emphasize research as a learning process and reduce focus on output; l) Advise students to balance their academic and research interests (10). Reviewing and identifying the barriers to research activities including research anxiety may help researchers to improve their researches quantitatively and qualitatively (11).

Anxiety and doubt can greatly interfere with students' ability to learn and master research concepts. Research has shown that low research self-efficacy can interfere with students' research training and practitioners' willingness to conduct research and add scholarly contributions to their field of study (12).

Bandura (1997) hypothesized that most human behavior is learned through reciprocal interactions with others. Bandura (1997) noted that although misjudgment of self-efficacy is rarely studied, it is believed that misjudgment of one's self-efficacy for a specific task produces dysfunction. Miscalculation of one's self-efficacy can result in either (1) overestimating one's ability to complete a task and lead to failure or (2) underestimating one's ability and passing up opportunities that shape one's life course. Similarly, although research on mentoring typically focuses on benefits, incompatible expectations for a mentor relationship may lead to problems (13).

Erfanmanesh and Didegah (2012) in their article entitled: "Researchers' and Faculty Members' Research Anxiety and its Causes: Literature Review" showed that: factors like personal characteristics of researchers and faculty members, their research skills and the atmosphere of their scientific and academic environments can be influential in the amount of research anxiety experienced. On the other hand, factors such as proficiency in research methods, mathematics and statistics; computer, Internet and library literacy; financial and organizational support; and skills in stress management and time management can reduce the amount of anxiety and increase the quantity and quality of scientific research (11). On the other hand, in several studies has been considered to examine the relationship between research anxiety and scientific production of faculty members. In general, faculty members have lower levels of anxiety in various stages of research experience, have more chances to do more researches with much quality levels (14, 15).

Serap Kurbanoglu et.al in a research entitled: developing the information literacy self-efficacy scale showed that further refinement based on principal component analysis indicated three major components, which allow approaching information literacy skills regarding to their complexity levels. The information literacy self-efficacy scale is recommended to identify individuals with low self-efficacy beliefs, which may be a significantly limiting factor for them to explore their information literacy skills (16). Zhao, McCormick, and Hoekman (2008) in a research: "that Gender and discipline are identified as predictors of self-efficacy. Specifically, female academics reported lower levels of self-efficacy for research

than males. Academics in the social sciences reported lower levels of self-efficacy for research than those in the natural sciences. Moreover, relationships are also found between self-efficacy for research and idiocentrism-allocentrism, which should draw policy makers' attention to the generally lower self-efficacy for research among female academics. Enhancing female academics' self-efficacy for research is likely to be important for the overall quality of research activity since many females are employed in academic positions in Chinese universities.

Skinner and Croft (2009) in a research: "Neuro-linguistic programming techniques to improve the self-efficacy of undergraduate dissertation students" concludes with a comparison of the results of those students who took part in the workshop sessions with those that did not. There was no discernable difference between the answers given by focus group respondents and by those interviewed in more depth (17). Zhao, McCormick, and Hoekman 2008 in a research: "Idiocentrism-allocentrism and academics' self-efficacy for research in Beijing universities" showed that there was no discernable difference between the answers given by focus group respondents and by those interviewed in more depth. It concludes with a comparison of the results of those students who took part in the workshop sessions with those that did not (18). Given the importance of Research and self-Efficacy.

2. MATERIALS AND METHODS

The present study is applied research which Using a survey and has done by descriptive approach.

The population of all graduate (MA and PhD) students in master's and doctorate at Islamic Azad University (Babol Branch) (1662 N =), among which, according to the Morgan 312 subjects stratified random sampling with a view gender, and in study groups. Before beginning the research, at first, obtained the approval of the relevant authorities and the participants in the research, About the purpose of research, ensure privacy and the right to participate or not participate in the research were explained and informed consent was obtained from them.

The instrument used for data collection, including two standard questionnaires, General Self-Efficacy Questionnaire with 17 questions and Research Anxiety of Gholami Borang has 40 questions, including 4 range from very low to very high scale (19). To determine the validity of research anxiety of Gholami Borang. To determine the validity of research anxiety of Gholami Borang, the validity of the scale of refereeing experts, divergent, convergent were obtained validity and factor analysis. For data analyzing used, Linear regression test and analysis of variance. Each question based on the Likert scale is set from strongly disagree to strongly agree range, the translation and validation of the scale has done by Barati (20). For data analysis was used SPSS version 17 and Fisher tests and regression tests with significance level of 0.05 was used. for investigating the relationship between Research anxiety and self-efficacy of the students of Islamic Azad University Babol, the dependent variable (organizational trust) and for determining the predictive variables research anxiety, gender and education of regression testing by Enter is used.

3. RESULTS

Multiple correlation coefficient between the variables is equal to $R=0.385$, which represents the correlation between variables (self-efficacy and research anxiety). The significance level for research anxiety was calculated less than the error rate is calculated, therefore, it can be considered a good predictor for efficacy. Gender and education variables due to the attention of higher levels of predictive cannot be considered so significant for efficacy. There is a significant negative relationship between research anxiety and self-efficacy. There is no relationship between demographic characteristics and self-efficacy. Multiple correlation coefficient between the variables equal to $R=0.385$, which represents the correlation between variables (self-efficacy and research anxiety) (Table 1), It is concluded that: There is significant relationship between self-efficacy and research anxiety. Since the 95% confidence level and measurement errors is calculated with ± 0.05 , the significance level $Sig = 0.001$, The assumption of a linear model (Linear relationship between variables is considered as one of the requirements for entry into regression) is confirmed (Table 2). Since the 95% confidence level and ± 0.05 measurement errors, Significant level for research anxiety variable is calculated less than the calculated error rate (Table 3), Therefore, it can be considered a good predictor for self-efficacy and variables of gender and education, due to attention of higher levels of significance of ± 0.05 measurement errors, therefore, cannot be considered appropriate predictor for self-efficacy. For comparing the effects of variables in the regression model on the dependent variable self-efficacy is used beta coefficient. Accordingly, the most relationship was due to the research anxiety (negative relationship) and the lowest was gender relationships. Also, based on the output column B regression equation is: $\text{self-efficacy} = 4.553 - 0.348(\text{research anxiety}) + 0.009(\text{gender}) + 0.079(\text{education})$.

In general, there is a significant negative relationship between research anxiety and self-efficacy. There is no relationship between gender and education and self-efficacy.

Multiple correlation coefficient	The square of the Correlation	Adjusted coefficient of determination	Estimation of the standard error
0.385	0.148	0.140	0.765

Table 1. Summary of the Equation

Variable	Test	Sources of changes	Sum of squares	DF	Mean Square		Significant level
Research anxiety and self-efficacy	Regression ANOVA	Regression	31.342	3	10.448	17.830	0.000
		Remaining	180.472	308	0.586		
		Total	211.815	311			

Table 2. Regression ANOVA of the main questions of the study

Coefficients	Non-standard Coefficients		Standardized coefficients	t	Sig
	B	رای عمی اطاخ	Beta		
Fixed	4.553	0.312		14.607	0.000
Research anxiety	-0.348	0.042	-0.374	7.097	0.000
Gender	0.017	0.106	0.009	0.161	0.872
Education	0.152	0.106	0.079	1.434	0.153

Table 3. Estimation in the provided regression model coefficients

4. DISCUSSION

In this study, researchers referenced texts related to research anxiety, students and self-efficacy in Persian and Latin Databases. Thus, the aim of this study, was to study of the relationship between research anxiety and self-efficacy from viewpoints of students at Islamic Azad University (Babol Branch). Research anxiety among graduate students can have a negative impact from different directions on their performance. Research anxiety may reduce the quantity and quality of scientific productivity of students and make suffering them, research anxiety causes education burnout and dissatisfaction of students in schools, anxiety research also affects the personal life or even impend their physical and mental health. This article examines the demographic characteristics of the study was the emergence of anxiety, characteristics such as age, gender, occupation and marital, cannot afford the turmoil of the formulation research and impressive thinking on new ideas. It also features in the development of mental confusion, bewilderment and even an apprehension of Research of persons in their related works.

Results showed concern for people in the pursuit of research, particularly about research these are one of the main concerns of graduate students. As well as individuals in the turmoil troubling searches on topics and not new or pristine - can be fitted with the relationship of the features such as high and low age or job type and fitted or warm female or male and single or married also cuddly. The results of this study was inconsistent with studies of Gmelch et al (1983), Perlberg & Kremer-Hayon (1988), Dua (1994), Bentley & Blackburn (1990) which showed research anxiety associated with age was inconsistent, also with studies of Dua (1994), Smith et al. (1995) and Ashley (2005) which showed women has more research anxiety was inconsistent and this study was consistent with the results of Richard & Krieschok (1989) which showed there is significant between gender and research anxiety (14, 15, 21-24).

As a result, graduate students encounter with the burden of multiple roles in personal life and scientific and each of these roles may cause anxiety in them. Since the research is one of the main tasks of the graduate students in addition to education, research anxiety is considered also as one of the most common types of anxiety is in training of graduate students, so that a sense of fear and uncertainty in relation to research, the creation of scientific and effective production, fear and distress during the process of science production, from selecting a subject to publish in scientific societies and even then, receiving feedback from the scientific societies and even easier than dealing with the supervisor and presentation of subject and fear and confusion of searching and its writing and stating which can always be accompanied by a student graduate which these can cause these individuals to reduce the amount of their success in achieving success or to lose it. This causes the self-efficacy among students that is one

of the most important components of success and adjustment will decrease or eliminate.

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- Author's contribution's: Seyed Aliasghar Razavi, Afsaneh Shahrabi and Hasan Siamian made substantial contribution to conception and design (acquisition of data, analysis and interpretation of data). Hasan Siamian Translated from Persian Language to English language, Afsaneh Shahrabi, Hasan Siamian revised it critically. Hasan Siamian made Endnote and final edition. All the authors approved the final version to be published.

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