

Emotional Intelligence: A Gender based Study of Radiography Students in South-East Nigeria

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Abstract

Objective of study: This study aims to determine the emotional intelligence level of Radiography and Radiological Science students of Nnamdi Azikiwe University, (Nnewi campus), Anambra State and the University of Nigeria, (Enugu campus), Enugu State both in South-East of Nigeria.

Materials and method: A prospective cross-sectional study design was adopted for this study, which was conducted from 14th of April to 18th August 2016. A Trait emotional intelligence questionnaire (TEIQue-SF) was used for this study after informed consent was obtained. Data was analyzed using mean, standard deviation, ANOVA, Bonferonis test and independent sample t-test.

Results: A total of 299 students comprising of 166 males (55.5%) and 133 females (44.5%) participated in the study. The students had average emotional intelligence level (125.89 ± 11.48). No significant difference was noted between total emotional intelligence and gender ($P=0.590$) except for well-being a sub-factor of emotional intelligence which had statistically significant difference in gender ($p=0.011$).

Conclusion: Although well-being was noted to have a significant difference in gender, this situation could have an impact on emotional intelligence and open up new avenues of research.

Keywords: Emotional intelligence • Gender • Radiography students

Introduction

Emotions influence all aspects of human interactions [1]. The human, a rational being, possesses these emotions in life which control activities and determine the path of success. It was earlier convention that only being cognitively intelligent is sufficient to live a healthy life and to get progress in life, but it is now well accepted that emotions are an essential tool for a successful and fulfilling life [1]. Emotional intelligence (EI) is the ability to recognize one's own and other people's emotions, to discriminate between different feelings and label them appropriately, and to use emotional information to guide thinking and behavior [2]. Goleman also viewed emotional intelligence as the ability to know and manage one's own emotions, recognize them in others and to handle relationships [3]. It includes abilities such as being able to motivate one and to persist in the face of frustrations, to control impulses and delay gratifications, to regulate one's mood and keep distress from swamping the ability to think, to empathize and to hope. It is a combination of both intrapersonal intelligence (introvert intelligence) and interpersonal skill [4].

The effect of emotional intelligence on an individual's characteristics and environment have determinative role on emotional intelligence. One factor that affects emotional intelligence is gender, which may be due to social or biological factors or both. Some researches reveal that there are relationships or that there are differences between gender, social, economic and demographic conditions and emotional intelligence of students [5,6]. Emotional intelligence is not a one day deal. One's families, gender, economic condition all contribute a lot in the way the one thinks, handles situation or relationship, how the one empathizes and most importantly how the one deals with stress [7]. Male and female are not only different biologically, but may also be emotionally, which may have a great impact on their emotional intelligence. Daniel Goleman argues that men particularly need to develop emotional skills and he gives many examples of men with high intelligence that was not successful because they have problem with their people skills [3]. He found from his research that people with EI generally have successful relationships with family, friends and fellow workers. They are also successful because they persist in the face of setbacks and channel their emotional energies towards achieving their goals. Emotional intelligence helps individuals to achieve the life quality that will make them successful and content by guiding the actions of individuals.

Socially, females are known to have greater EI than males [8,9]. Even though everyone is emotionally intelligent, studies have shown that females demonstrate a higher degree of EI than males do [10,11]. Emotional intelligence can be conceptualized in different ways and there are three models of emotional intelligence. These models are the ability model, the trait model and the mixed models of emotional intelligence [12-14]. The ability model focuses on the individual's ability to process emotional information and use it to navigate the social environment. The trait model encompasses behavioral dispositions and self-perceived abilities (emotionality, sociability, well-being and self-control) on which the study is focused, while the mixed model is a combination of both ability and trait emotional intelligence models. The trait is a constellation of emotion-related self-perceptions located at the lower levels of personality [15]. The model shows how these traits predict numerous outcomes such as life satisfaction, coping strategies and rumination much better than a host of other variables. This definition comprises behavioral dispositions and self-perceived abilities which are measured by self-report.

Emotional intelligence is related to interpersonal and communication skills and is important in the assessment and training of medical undergraduates [16]. Emotional intelligence scores as predictor of work performance is a growing field in medicine, sub-specialties and medical education.

Hence, it is important to note whether or not there is a difference in the EI of the students and how much gender affects EI, which will play a role for predictive and prescriptive purposes in radiography training.

A number of researches have revealed mixed results on the EI of males and female. Ahmad, et al. studied Emotional intelligence and gender differences in 160 (80 male and 80 female) subjects using emotional quotient inventory and result revealed that males have higher emotional intelligence as compared to females [17]. Also, a study by Arun on gender based study of emotional intelligence on selected 400 students from various colleges of Kanpur city showed that the male students had slightly higher mean score of emotional intelligence than female students with no significant difference between the groups [18].

Harrod and Scheer measured emotional intelligence of 200 youngsters between the ages of 16 to 19 [19]. The emotional scores were compared with demographic qualities (age, sex, household income, educational level of parents, and place of residence) of the individuals. The findings revealed that there was a positive relationship between levels of emotional intelligence and sex, education level of parents and household income. There was no significant relationship between emotional intelligence and place of residence during adolescence. There were significant difference between emotional intelligence scores of women and men. Women had higher levels of emotional intelligence. There was no significant difference between emotional intelligence score and age, place of residence and household income. The important difference is confirmed to be based on emotional intelligence for educational status of the family. In other words, the level of emotional intelligence improves with the increased level of education. In conclusion, the studies revealed that demographic qualities were also associated with emotional intelligence. Above and beyond all these, emotional intelligence is linked with success in life and daily social activities. That is to say, it is crucial to take into consideration the environmental variables or factors having an impact on formation of emotional intelligence for personal or individual development.

Mishra and Ranjan studied the EI of adolescents (40males, and 40 females) to know whether there is gender difference, and result showed that adolescent boys and girls differ significantly on emotional intelligence and boys were found to be significantly higher on EI than the girls [20]. The higher scores of the boys indicate that they are better on interpersonal, intrapersonal, adaptability and stress management skills and their overall general mood (happiness and optimism) are of higher order than the adolescent girls.

Patil and Kumar carried out a study on EI among student's teachers in relation to gender, faculty and academic achievement and result showed that there is no significant difference between EI females and females, science and arts students teachers. No significant relationship was found between EI and academic achievement of the students teachers [21].

Vallabhaneni and Jasti in their study noted that EI of men and women differ only in certain dimensions like self-awareness and empathy whereas equal scores were observed in other dimensions like self-confidence, self-control, motivation and social competence [22].

Kaneez in a study on the gender differences on emotional intelligence showed that there is a significant difference between men and women on some subscales of EI that is assertiveness, independence, stress tolerance and impulse control [23].

Consequently, several other researchers have come up with variations in results on gender differences on EI. Thus, there is need for further studies on emotional intelligence at different levels as this present work studies Radiography students at Nnamdi Azikiwe University, Awka and University of Nigeria, Enugu.

Methodology

To find out the emotional intelligence level of male and female students of Radiography and Radiological science of Nnamdi Azikiwe University, Nnewi (campus), Anambra State and University of Nigeria, Enugu (campus), Enugu State both in South-East of Nigeria.

Hypothesis: There is no significant difference in the emotional intelligence level of male and female students.

Sample: The sample consisted of 299 students of radiography and radiological sciences from second (2nd) year to final year of study.

Instrument: A Trait emotional intelligence questionnaire (TEIQue-SF) was used for this study.

Statistical analysis: Data was analyzed using mean, standard deviation, ANOVA, Bonferonis test and independent sample t-test.

Results

Table 1 shows gender distribution of the students. Table 2 shows the mean score of emotional intelligence level of the students with majority (89.3%) of the students having average EI scores.

Table 1. Demographic and socio-economic characteristics of respondents.

Gender	Frequency	Percentage
Male	133	44.5
Female	166	55.5

Table 2. The assessment of the level of emotional intelligence of respondents and percentage distribution according to level of emotional intelligence.

Level of Emotional Intelligence	Range of emotional intelligence score	Mean Intelligence Score \pm SD	Frequency	Percentage
Low	50-99	93.0 \pm 6.05	7	2.3
Average	100-149	125.89 \pm 11.48	267	89.3
High	150-199	163.0 \pm 10.90	25	8.4

Table 3 shows the mean emotional intelligence scores of respondents according to trait models and gender. Independent sample t-test indicated lack of gender differences: self-control ($p=0.189$), emotionality ($p=0.712$), sociability ($p=0.886$) global ($p=0.617$) and total emotional intelligence ($p=0.590$). Hence, the hypothesis stating that there is no significant difference in the emotional intelligence level of male and female students is accepted. In contrast, significant gender difference was observed in well-being trait ($p=0.011$). Data indicated that males had significantly ($p<0.05$) higher emotional well-being compared to females.

Table 3. Effect of Gender on Emotional Intelligence.

EI traits models	Mean Score \pm Standard Deviation		F-Stat	P
	Male	Female		
Well Being	30.19 \pm 5.12	28.54 \pm 6.05	2.55	0.011*
Self-Control	26.30 \pm 5.55	27.11 \pm 4.85	-1.31	0.189
Emotionality	30.80 \pm 6.94	30.50 \pm 7.17	0.37	0.712
Sociality	14.48 \pm 7.45	34.37 \pm 4.51	0.14	0.886
Global Trait	17.07 \pm 4.32	16.83 \pm 4.01	0.5	0.617
Total EI	128.68 \pm 17.14	127.66 \pm 4.01	0.54	0.59

*Significant difference

Discussion

In this study, a total of 133 females and 166 males ($n=299$) students participated in this study. This shows a satisfactory representation of students of both gender, with 44.5% female and 55.5% male participant ratio. This eliminates any form of bias due to insufficient or skewed representation of a particular gender group. 106 (35.5%) of the students are from Nnamdi Azikiwe University, while 193 (64.5%) of the students are from University of Nigeria.

Findings from this study revealed that majority of the students (89.3%) have average emotional intelligence, (2.3%) of the students have low emotional intelligence level, while 8.4% of the students have high emotional intelligence. The overall emotional intelligence level of the students is on the average. This finding is in line with the work Kumar and Muniandy who found the emotional intelligence level of their students to be average [24]. On the contrary, other researches revealed high emotional intelligence level amongst the student [25,26]. However, the students had high well-being scores as they agreed that they are pleased with their lives, find life enjoyable and believe that things will work out fine in their lives. This could be because students on entry or before entry into the discipline had been told or heard that there are few Radiographers in the country and after graduation, Radiographers earn good salaries and thus live a comfortable life.

Regarding gender, several studies have opined that significant differences exist between emotional intelligence level and gender. Some found men to have higher emotional intelligence level, while some conclude that women have higher emotional intelligence than the males [19,26-30]. This present study did not find significant difference between the total emotional intelligence level of male (128.68 \pm 17.14) and female (127.66 \pm 4.01). This is in line with the work of Bar-on, Goleman, Mabekoye and Oguneme, Bhuvanewari, Sanchez-Ruiz, et al. in their study

which asserted that there are no gender differences in terms of emotional intelligence of males and females [31-35].

However, on the sub-factors of emotional intelligence, no significant difference was noted between self-control ($p=0.189$), emotionality ($p=0.712$), sociability ($p=0.886$) global ($p=0.617$) and total emotional intelligence ($p=0.590$) except for well-being trait ($p=0.011$) which indicated a significant difference with males having a higher well-being compared to their female counterparts. This finding can be culturally explained as males generally are made to believe through cultural role expectations that they should adapt to their environments more easily than the females. The school cannot be totally divorced from the society to which it forms part [36]. Again, the prospects in the Radiography profession could be another factor that could offer a higher well-being to the males.

Conclusion

This research studied the emotional intelligence level of Nnamdi Azikiwe University and University of Nigeria students based on gender and found no significant difference in the emotional intelligence of male and female students. Emotional intelligence accounts for higher percentage of job performance and research has it that most top performers have average to high emotional intelligence. This could mean that the students upon graduation will be able to carry out their duties as Radiographers effectively and deliver quality care to the patients. Although the students had average total emotional intelligence, the male students had higher mean well-being and this situation could have an impact on emotional intelligence and open up new avenues of research.

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