



PERSONAL AND DEMOGRAPHIC CHARACTERISTICS INFLUENCING GLOBAL SELF-ESTEEM OF MEDICAL STUDENTS IN A NIGERIAN UNIVERSITY

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ABSTRACT

The study investigates the role of personal and demographic characteristics in global self-esteem among 262 (183 male and 79 female) final year medical students of 2010/2011 and 2011/2012 sessions of University of Benin. The study utilised a cross-sectional survey design and adopted the convenience sampling technique. to collect data on the Big Five personality traits, self-esteem, and locus of control. All the personality traits jointly accounted for a significant variance in global self-esteem, $F(5, 256) = 14.61$; $p < .001$, with $R^2 = 22.2$. Relatively, conscientiousness ($\beta = .16$; $t = 2.53$; $p < .012$), neuroticism ($\beta = -.33$; $t = -5.07$; $p < .000$), and openness to experience ($\beta = .14$; $t = 2.33$; $p < .021$) contributed significantly to the variance in global self-esteem. Also, the subscales of locus of control (internality, chance, and powerful others) jointly accounted for the variance in global self-esteem, $F(3, 258) = 3.87$; $p < .05$ with $R^2 = 4.3$. However, there were no significant differences in global self-esteem based on age groups, gender, ethnicity and marital status. The findings revealed that personal characteristics are likely predictors of the global self-esteem of medical students. Therefore, as part of clinical education, personal characteristics should be considered as an important tool for increasing the sense of self-esteem of medical students.

Keywords: Personal characteristics, locus of control, global self-esteem, medical students, Nigeria

INTRODUCTION

Life in a medical school is very demanding in terms of physical and mental health (Aarif & Mishra, 2009). Studies have shown that particular stress features associated with the medical school may stimulate mental health problems, and a decline in life satisfaction among students (Bramness, Fiedal & Vaglum, 1991; Tyssen, Vaglum, Gronvold & Ekeberg, 2001; Kjeldstadli, et al., 2006). Distress may affect their functioning as students and, later, as caregivers for patients (Stewart, Lam, Betson, Wong & Wong, 1999; Shanafelt, Bradly, Wipt & Back, 2002). A study in a medical college revealed greater vulnerability of first-year and final-year students (Aarif & Mishra, 2009).

Self-esteem has been associated with a variety of mental health issues (Ali & Malik, 2014) and a greater intensity of psychiatric problem, including depression and anxiety, and it has been well thought out as a susceptibility factor in the growth of depression and psychosis (Wittkowski, 2006).

Moreover, the studies in the past fifteen years have indicated that self-esteem is a powerful and important psychological factor in health and the quality of life. It is recognised that the feelings of being worthy and empowered are associated with strong self-esteem, which can result in positive changes, such as achievements, more effort to gain success, and being hard working and tending to have a better health status (Mann, Hosman, Schaalma & de Vries, 2004).

Self-esteem is the individuals' favourable or unfavourable attitude towards the self, that is, favourable or unfavourable thoughts and feelings with reference to self as an object (Rosenberg 1965). Numerous theorists have associated self-esteem to a wide range of (mal)



adaptive processes (Trzeniewski, Donnellan & Robins, 2003). High self-esteem is related to global feelings of self-liking and self-worth, respect and acceptance (Kerniset al., 1993). Conversely, low self-esteem is associated with unhappiness and is assumed to have damaging effects (Roberts, Gotlib & Kassel, 1996).

Self-esteem has well-known effects not only on present physical and mental health and health-related behaviour, but also on future health and health-related behaviour during adulthood (Mann, Hosman, Schaalma, & de Vries, 2004). Self-esteem has been known to be a predictor of social problems in the modern investigation of psychological and social development (Mecca, Smelser, & Vasconcellos, 1989; Donahue & Benson, 1995; Mruk, 1995). Researchers who study suicide claim that, when the protective guard of self-esteem is low, depression is more probable to sneak in (Mruk, 1995). Extreme cases of low self-esteem can be fatal because depressed adolescents are particularly inclined to consider the preference of suicide and actually carry it out (Mruk, 1995; Nunley, 1996).

Self-esteem is an essential value and a characteristic that is regarded as a precise necessity for health care professionals during their interactions with patients, caregivers, other health care team members and even hospital management (Räty & Gustafsson, 2006). Self-esteem in health care professionals is considered as hidden capability in which, when combined with professionalism and accountability, will positively reinforce hospital customer satisfaction (Decker, 1999). A high self-esteem causes healthier performances and remarkable interpersonal success, leading to improved happiness and a healthier way of life (Baumeister, Campbell, Krueger, & Vohs, 2003). Health care professionals with high self-esteem have a tendency to stimulate, influence and induce a positive well-being both in the health care team and in patients with chronic or terminal illness (Chris, Pais, Kumar, & Sisodia, 2012).

Self-esteem and personality are likely to share common developmental roots (Robins, Tracy, & Trzesniewski, 2001). Examining the role personality plays in self-esteem across the life span might provide insights into the nature of self-esteem and its development. Like personality, self-esteem is moderately heritable, with about 30% of the variance due to genetic differences (Kendler, Gardner, & Prescott, 1998). Secondly, self-esteem and personality may directly influence each other. For example, people's consistent patterns of behaviour (that is, personality) influence how they perceive and evaluate themselves, thus, self-esteem may play a critical role in shaping personality processes. Individuals' beliefs about themselves influence how they act in particular situations, the goals they pursue in life, how they feel about life events and relationship partners, and the ways in which they cope with and adapt to new environments (Robins et al., 2001).

Researchers interested in individual differences in personality have largely relied on the five-factor model (FFM) as a basis for establishing the central construct (Robins, Tracy, Trzesniewski, Potter, & Gosling, 2001). Amazingly, less consideration has been given to the link between personality dimensions and self-esteem itself. It could be postulated that steady personality traits might influence the manner people recognize and appraise themselves (Robins et al., 2001). Global self-esteem has been positively correlated with extraversion and negatively correlated with neuroticism (Watson, Suls, & Haig, 2002); it is, therefore, crucial for experiences of personal well-being (Jonsson, 2006).

Most of the investigations made use of college student participants and found that self-esteem had a strong positive correlation with emotional stability, moderate positive correlations with extraversion and conscientiousness, and weak positive corrections with agreeableness and



openness (Goldberg & Rosolack, 1994; Jackson & Gerard, 1996; Kwan, Bond, & Singelis, 1997; Keller, 1999; Robins, Hendin, & Trzesniewski, 2001). Similarly, global self-esteem relates negatively to neuroticism and relates positively to extraversion (Judge, Erez, & Bono, 1998). In a recent study among the youth on the correlates of personality and self-esteem, extraversion and self-esteem were positively correlated, while there was no correlation between neuroticism and self-esteem (Kelyani, 2014).

Since self-esteem has been presented to be highly correlated with other measures such as resilience, it would be unproductive to leave out factors which appear to function in tandem with self-esteem. Particularly, locus of control (LOC) seems to have high positive correlation with self-esteem. Individuals who display an internal locus of control have the tendency to believe that their lives are under their own control and that they are ultimately the masters of their own destinies. Conversely, those who have an external locus of control may feel that their lives are determined by randomness and luck, other individuals who are characteristically seen as possessing great control and power over them or that their fates are totally unpredictable (Wallace, Christopher, Zeigler-Hill, & Green, 2012).

It has been shown that individuals who have a high self-esteem also tend to be associated with an internal locus of control and a negative correlation with depression and anxiety in adults, while those with low self-esteem have exhibited an external locus of control (Judge, Erez, Bono, & Thoresen, 2002; Simpson, Hillman, Crawford, & Overton, 2010; Wallace, Christopher, Zeigler-Hill, & Green, 2012).

There have been diverse theoretical debates about the origins, causes, and consequences of self-esteem (Baumeister, Campbell, Krueger, & Vohs, 2003; Leary, 2004; Gebauer et al., 2015), but now there is a more unified view of the life span development of global self-esteem in men and women. Specifically, a large number of cross-sectional, longitudinal, and cohort-sequential studies have provided evidence that, across cohorts, samples, and measures that men tend to have higher self-esteem than women. In fact, the effect of gender is now considered one of the most well-established findings in the self-esteem literature (Kling, Hyde, Showers, & Buswell, 1999; Robins & Trzesniewski, 2005; Huang, 2010; Trzesniewski, Donnellan, & Robins, 2013; Orth & Robins, 2014).

However, in some other studies, the gender differences were small (Kling et al., 1999; Quatman, Sampson, Robinson, & Watson, 2001) or not significant (Keltikangas-Järvinen, 1990). Similarly, quite a few studies reported higher self-esteem for men in young adulthood (Twenge & Campbell, 2001; Robins et al., 2002; McMullin & Cairney, 2004); in some studies the gender difference was small (Robins et al., 2002; Orth, Trzesniewski, & Robins, 2010) or not significant (Galambos, Barker, & Krahn, 2006; Donnellan, Trzesniewski, Conger, & Conger, 2007). However literature search revealed that limited studies have been conducted on the role of gender in the self-esteem with specific focus on medical students.

Many studies have examined the development of self-esteem, but they have been unable to develop a consensual picture of age differences in self-esteem through the whole life span (Robins et al., 2002). About thirty-five years ago, Wylie conducted an extensive review of the self-esteem literature and concluded that there were no systematic age differences in self-esteem (Wylie, 1979). However, some researchers have challenged the accuracy of Wylie's conclusion (McCarthy & Hoge, 1982; O'Malley & Bachman, 1983; Rosenberg, 1886).



The purpose of this study was to investigate the role of personal and demographic characteristics in global self-esteem among medical students in a Nigerian university. Our construct of personal characteristics was defined in terms of the Big Five personality traits and the Levenson Multidimensional locus of control. The demographic characteristics were defined in terms of gender, age, ethnicity and marital status. The sample was uniquely different from the samples of some earlier studies conducted in Nigeria. It will be interesting to find out which of these personal and demographic characteristics are important in determining the self-esteem of future medical doctors, since the health of a community rests on the level of services offered by physicians and paramedical professions (Farajpouret al., 2014). Ascertaining and resolving the obstacles of performance in medical practice is of paramount importance. Therefore, the research was carried on students at the final year level.

This study, therefore, would address the following hypotheses:

1. Personality traits (extraversion, agreeableness, conscientiousness, neuroticism and openness) would independently and jointly predict global self-esteem among medical students.
2. Locus of control (internal, chance and powerful others) would independently and jointly predict global self-esteem among medical students.
3. Male students will report significantly higher global self-esteem than female counterparts.
4. Married medical students will score higher on global self-esteem than the students who are single.
5. Students of Edo origin will report higher global self-esteem than students from other ethnic groups (Urhobo, Ibo and Yoruba).
6. Students who are older (above 31 years) will score significantly higher on global self-esteem than those students who are very young (21 - 25), and younger (26 - 30 years).

METHODS

Design

This is a survey research utilizing a cross-sectional design to examine personal and demographic characteristics affecting global self-esteem among medical students in a Nigerian university. Personal (extraversion, conscientiousness, agreeableness, neuroticism and openness to experience, internal, chance, and powerful others locus of control) and demographic characteristics (gender, age, marital status and ethnicity) are the independent variables while global self-esteem is the dependent variable.

Participants

The students who participated in this study were volunteer final year (600 level) medical students of the University of Benin, Benin City, Nigeria. The students were drawn from two successive academic sessions (2010/2011 and 2011/2012). In total, 262 students participated in the study. Their ages ranged from 21 to 40 with a mean age of 26.18 (SD=2.67). Majority (n = 193, 69.8%) of the students were males while 79 (30%) were females. In terms of age categories, 49.65% (130) were between 21 and 25 years, 43.5% (114) were between 26 – 30 years, while 6.9% (18) were 31 years and above. Participants were predominantly Christians (98.9%). Most of the students who participated were single (93.9%); 6.1% were married. Most of the participants were Edo (42.7%); 29.8% were Urhobo; 16.4% were Ibo; 7.6% were Yoruba; while 3.4% were from other ethnic backgrounds. (See Table 1).

Table 1. **Demographic Characteristics of Participants**

Sample demographics	Total (%)	n	
Gender	Male	69.8	183
	Female	30.2	79
Age categories	21 – 25 years	49.6	130
	26 – 30 years	43.5	114
	31 years and above	6.9	18
Religion	Christians	98.9	259
	Muslims	1.1	3
Marital status	Single	93.9	246
	Married	6.1	16
Ethnicity	Edo	42.7	112
	Urhobo	29.8	78
	Ibo	16.4	43
	Yoruba	7.6	20
	Other tribes	3.4	9

Measures

Big Five Inventory (BFI): This 44-item questionnaire (John & Srivastava, 1999) assessed the Big Five Personality factors, namely Extraversion, Conscientiousness, Agreeableness, Neuroticism and Openness to experience. The items involved questions about characteristics, behaviours or reactions, which are answered on a five-point Likert scale, ranging from 'strongly disagree' to 'strongly agree'. The coefficients of reliability provided by John et al. (1991) are Cronbach alpha .80 and 3-months test-retest of .85. Big Five Inventory has mean convergent validity coefficient of .75 and .85 with the Big Five Instrument authored by Costa and McCrea (1992) and Golberg (1992) respectively. The divergent validity coefficient obtained by Umeh (2004) with University Maladjusted Scale (Kleinmuntz, 1961) are Extraversion .05, Agreeableness .13, Conscientiousness .11, Neuroticism .39, Openness .24. In the current study, alpha reliabilities were .57 for extraversion, .77 for conscientiousness, .65 for agreeableness, .76 for neuroticism and .63 for openness to experience

Rosenberg's Self-Esteem Scale (RSE): This is a 10-item Likert type measure that assesses an individual's overall sense of self-esteem. Response options of the scale range from 'strongly disagree' to 'strongly agree'. The RSE has been used in many studies since its development, and Rosenberg initially found it to have strong internal consistency reliability (.93) and to negatively correlate with anxiety and depression (Rosenberg, 1965). In Nigeria, Okwaraji, Aguwa, & Shiweobi (2015) established a cronbach alpha of .84 and two week test –retest reliability coefficient of 0.76. For this study, the estimated internal consistency reliability was .78.



Multidimensional Locus of Control Scales: This scale independently measures three separate components of the control construct in order to provide a profile of causal beliefs. The Internality (I) subscale measures the extent to which people believe they have control over their own lives. The Powerful Others (P) subscale measures the extent to which people believe that powerful others control their outcomes. The Chance, Luck, or Fate (C) measures people's beliefs about chance control (Levenson, 1981). Each of the three subscales contains eight items presented in a single 24-item scale. The I, P, and C subscales measure with a seven-point Likert format ranging from -3 (strongly disagree) to +3 (strongly agree). Test retest reliabilities ranging from 0.60 and 0.79 has been reported (Levenson, 1981). For this study, alpha coefficient reliabilities of .65, .74 and .71 were found for Internality, Chance and Powerful Others, respectively.

Procedure

This investigations took place in two successive sessions (2010/2011 and 2011/2012) while the students were undergoing the mental health posting, during the regular class time at the lecture hall. The course that the students were taking was compulsory for all 600 level medical students who were on mental health posting. Prior to the administration of the questionnaire, the study was explained to them. A cover sheet explaining that the questions were related to the participants' own thoughts and feelings and that all responses would be confidentially treated was on the front page of each test booklet. An opportunity to ask questions was provided and clarifications were made. In this study, a total of 270 questionnaires was distributed, while 264 were returned, representing a return rate of 97.77%. Out of the 264 returned, 2 copies were discarded, leaving a total of 262 that were used for the data analysis. The participants took about 6 to 10 minutes to complete the questionnaire.

Data analysis

The data were analysed using the Statistical Package for Social Sciences (SPSS) version 16.0. Descriptive statistics (frequencies, percentages and means) were done, multiple regression analysis to assess the influences of personal characteristics on self-esteem; independent sample t-test, to establish the effects of demographic characteristics on self-esteem. Reliability assessment of the independent and dependent scales (Cronbach's alpha) was determined and statistical level significance set at $p < 0.05$.

Ethical consideration

All willing participants gave informed consent to participate in the study which commenced after the approval of the Ethics and Research Committee of University of Benin was obtained.

RESULTS

The first hypothesis states that personality traits (extraversion, agreeableness, conscientiousness, neuroticism and openness) would independently and jointly predict global self-esteem among medical students. It was tested with multiple regressions.

Table 2: Summary of Multiple Regressions Showing the Influence of Personality Characteristics on Self-Esteem

Dependent variable	Independent variables	R	R ²	F	P	β	t	Sig
Self-Esteem	Extraversion	.471	.222	14.606	< .01	.082	1.434	> .05
	Agreeableness					-.074	-1.165	> .05
	Conscientiousness					.165	2.530	< .05
	Neuroticism					-.330	-5.071	< .01
	Openness					.137	2.327	< .05

The results in Table 2 shows that personality traits (extraversion, agreeableness, conscientiousness, neuroticism and openness to experience) jointly predicted self-esteem, $F(5, 256) = 14.606$; $p < .01$, with $R^2 = 22.2$. This suggests that all the predictor variables together accounted for 22.2% of the proportion of variance in self-esteem, while the remaining 77.8% could be attributed to other alienated factors not considered in this study. It can also be deduced from the above that conscientiousness ($\beta = .16$; $t = 2.530$; $p < .05$), neuroticism ($\beta = -.330$; $t = -5.071$; $p < .01$) and openness to experience ($\beta = .137$; $t = 2.327$; $p < .05$) independently predicted self-esteem. Therefore, the result confirmed the stated hypotheses and it is accepted in this study.

The second hypothesis states that locus of control (internal, chance and powerful others) would independently and jointly predict global self-esteem among medical students. It was tested with the use of multiple regressions.

Table 3: Summary of Multiple Regressions Showing the Influence of Locus of Control on Self-Esteem

Dependent variable	Independent variables	R	R ²	F	P	β	t	Sig
Self-Esteem	Internal	.208	.043	3.870	< .01	.084	1.379	> .05
	Chance					-.129	-1.1690	> .05
	Powerful others					-.083	-1.093	> .05

Results show that all the subscales of locus of control as predictor variables jointly predicted self-esteem ($F [3, 258] = 3.870$; $p < .01$) with $R^2 = 4.3$. This indicates that all the predictor variables accounted for 4.3% of the proportion of variance in self-esteem, while the remaining 95.7% could be attributed to other alienated factors not so considered in this study. However, none of the subscales of locus of control (internal, chance, and powerful others) significantly independently predicted self-esteem. Therefore, the stated hypothesis is partially confirmed.

The third hypothesis which states that male students will report significantly higher global self-esteem than female counterparts was tested using the independent sample t – test. The result of the analysis is presented below in Table 4

Table 4: Summary of Table of Independent T-Test Results Showing the Significant Influence of Gender and Marital Status on Self-Esteem

Dependent variable	Independent variables	N	\bar{x}	S.D	df	t	P
Self-Esteem	Gender						
	Male	183	25.16	3.82	260	-1.36	.176
	Female	79	25.87	4.14			
	Marital Status						
	Single	246	25.30	3.93	26.0	-1.12	.264
Married	16	26.44	3.78				

Findings revealed that there was no significant effect of gender on self-esteem $t(260) = -1.36, p = .176$. The result implies that there is no significant difference between male and female medical student based on their level of global self-esteem. Hence, the result did not confirm the stated hypothesis and it is rejected in this study.

Hypothesis four states that married medical students will score higher on global self-esteem than the students who are single. It was tested with the use of independent sample t-test. Table 4 result shows that marital status did not significantly affect self-esteem, $t(260) = -1.12, p = .264$. This result implies that there is no significant different in levels of marital status based on global self-esteem among the medical students. Therefore, the stated hypothesis is rejected.

The fifth hypothesis states that students of Edo origin will report higher global self-esteem than students from other ethnic groups (Urhobo, Ibo and Yoruba). The hypothesis was tested using a One-Way ANOVA. A summary of the test is presented in Table 5.

Table 5: One-Way ANOVA for Self-Esteem among the Ethnic and Age Groups

Dependent variable	Sources	SS	df	MS	F	P
Self-Esteem	Between	91.25	4	22.81	1.49	> .05
	Within	3928.09	257	15.28		
	Total	4019.34	261			
	Between	51.99	2	25.91	1.70	> .05
	Within	3967.35	254	15.32		
	Total	4019.34	261			

As shown in Table 5 above, ethnicity (Edo, Urhobo, Ibo, Yoruba and Others) did not reveal statistically significant effect on self-esteem ($F[4, 257] = 1.49, p = .205$). This result indicates that these different tribes did not differ significantly on global self-esteem. Therefore, the stated hypothesis is rejected.

The last hypothesis states that students who are older (above 31 years) will score significantly higher on global self-esteem than those students who are very young (21 - 25), and younger (26 - 30 years). The result of the One-Way ANOVA used to test this hypothesis reveals that there was no significant effect of age group on self-esteem ($F[2, 259] = 1.69, p = .185$). This finding shows that the global self-esteem of the different age groups was not statistically different from each other. Hence, the result did not confirm the stated hypothesis and it is rejected in this study.

DISCUSSION

This study aimed to advance the understanding of the role of personal and demographic characteristics in self-esteem among the final-year medical students in a Nigerian university. It was hypothesized that personality traits and locus of control would predict global self-esteem; and that gender, age, ethnicity and marital status would influence global self-esteem. Based on previous propositions and findings, we expected that these personal and demographic characteristics would determine global self-esteem among the students.



The results indicate that personality traits was a significant predictor of global self-esteem. Conscientiousness, neuroticism, and openness to experience independently predicted global self-esteem. All personality traits jointly predicted self-esteem. Largely, our prediction was confirmed and was in line with previous research findings (Goldberg & Rosolack, 1994; Jackson & Gerard, 1996; Kwan et al., 1997; Keller, 1999; Robins et al., 2001) that examined global self-esteem with regard to personality dimensions.

This finding suggests that personality traits, most importantly conscientiousness, neuroticism and openness to experience, are important in determining self-esteem. It has been pointed out that self-esteem is a crucial value and a characteristic that is regarded as a precise necessity for health care professionals during their interactions with patients, caregivers, other health care team members and even hospital management (Räty & Gustafsson, 2006). Thus, measures that are aimed at increasing the global self-esteem of the medical students who are tomorrow's doctors must take cognizance of the role of these personality factors. Any attempt aimed at increasing the self-esteem without considering these dimensions may be endangered.

None of the subscales of locus of control did independently predict self-esteem. However, all the subscales of locus of control as predictor variables jointly predicted self-esteem. Result of the first part of this finding conflict with previous studies. Internals who were presented with a compelling message were less likely to change their attribute than were externals (Hjelle & Clouser, 1970). Besides, internals not only were resilient to external influences, but also really demonstrated psychological reactance (Biondo & MacDonald, 1971). These latter findings suggest a substantive overlap between measures of locus of control and self-esteem (Judge, Erez, Bono, & Thoresen, 2002).

Furthermore, it was observed that there was no significant difference between male and female students on self-esteem. This implies no gender differences in the manifestation of self-esteem. This result corroborates other studies which found no gender differences in self-esteem (Keltikangas-Järvinen, 1990; Galambos et al., 2006; Donnellan et al., 2007). Gender has been reported by some studies to have an influence on developing self-esteem during adolescence. Boys are more likely to have high self-esteem at this stage of life than girls (Kling et al., 1999; Robins et al., 2002; McMullin & Cairney, 2004).

In the same trend, it was observed that there was no significant difference between students who were single and their counterparts who were married. This indicates that marital status does not determine self-esteem. The sense of being a medical student seems to be more paramount than whether one is single or married. In contrast to this finding, Challenger's (2005) study on the relationship between self-esteem and demographic characteristics of black woman on welfare found a positive relationship between self-esteem and marital status. Single participants were found to have a higher self-esteem than their married, divorced or separated peers.

Lastly, ethnicity (Edo, Urhobo, Ibo, Yoruba and Others) did not reveal statistically significant effect on self-esteem. However, final-year medical students of Edo origin showed the highest level of self-esteem, followed by students who were Urhobo, Others, Ibo and Yoruba. Nevertheless, these different tribes did not differ significantly on self-esteem. It, therefore, means that ethnicity does not affect self-esteem. This finding may be due to the similar exposure the students might have had for close to six years in the same environment. A significant difference might be possible if students who were schooling in their ethnic locations were compared.



Conclusion

This study found that conscientiousness, neuroticism, and openness to experience independently predicted self-esteem. In addition, all personality factors (extraversion, agreeableness, conscientiousness, neuroticism and openness to experience) interacted together to affect self-esteem. Locus of control (internal, chance and powerful others) also interacted to predict self-esteem. However, there were no significant differences in global self-esteem based on age groups, gender, ethnicity and marital status of the students. This study has revealed that personal characteristics were pertinent to self-esteem among the medical students.

The findings of this study have profound implications for the psychological health of future doctors. One of the Minnesota Multiphasic Personality Inventory (MMPI) scales that were significantly correlated with higher burnout was low self-esteem measures (McCranie & Brandsma, 1988). The essence of medical education is to train knowledgeable, competent and professional physicians that will promote the nation's health advance the science of medicine and promote public health (Aminiet al., 2007). Without healthy self-esteem, attempt to achieve these qualities may be endangered. This is because the individuals with low self-esteem downplay the importance of appearing competent to others (Park, Crocher, & Kiefer, 2007). Therefore, confidence should be considered as an important variable, as it has been shown to be a subjective marker of competence and one component of the ability to function competently (Cohen & Cohen, 1990). Therefore, identifying and resolving the barriers of performance in clinical education should be considered in the training phase of medical students. By increasing the sense of self-esteem, universities should provide a suitable ground for the successful completion of the study and helping students to achieve their professional role.

This study has some limitations, which offer opportunities for future research. The findings are limited in external validity by the convenience sampling technique utilized. The findings were also limited to the specific measures used. However, some of the results were consistent with previous studies, therefore, confirming some confidence in their validity. Again, the research was limited to some personal and demographic characteristics affecting self-esteem. The effects of other factors, such as a person's thought and perception, how other people react to you, illness, disability or injury, religion, role and status in society and media messages, were not included as part of the variables of investigation.

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