Developing the Future Health Workforce: Understanding the Relationship between Interpersonal Skills and Academic Outcomes among Undergraduate Students

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Abstract

Research purpose: Due to the increasing need for effective teamwork and collaborations in health organisations, it has become crucial for health workers to have strong interpersonal skills. In the light of the above, this study aims at contributing to the future health workforce by investigating the impact of interpersonal skills on academic outcome among final year undergraduate medical students of the University of Benin, Benin city.

Methodology: To achieve its aim, the study employed a survey design that allowed the usage of a structured questionnaire to draw data from 100 final year undergraduate medical students of the University of Benin, Benin city. Using the 4-point Likert scale questionnaire ranging from strongly agreed to strongly disagreed, data. For analysis, the study employed linear regression to determine the effect of interpersonal skills on academic outcome.

Findings: With a p-value of .016 at a 5% significance level, the findings of the study indicate a positive significant relationship between interpersonal skills and academic outcome.

Recommendations: Based on the study findings, the recommendations are that medical students should engage in more informal academic and extra academic activities such as academic class discussion groups and sports so as to have more interactions with other students and potentially build strong interpersonal skills. University authorities are also advised to make and implement policies focused on

providing and improving campus securities, infrastructures and counselling services to medical students. This will provide a safe environment for more interactions among students.

Keywords: Interpersonal Relationship, Academic outcome, Work force, Future, University

Introduction

Despite the rising technical competence of health personnel, the delivery success in the health industry is largely negatively affected by poor interpersonal skills of health workers. Besides the overall aim of delivery excellent medical services, strong interpersonal skills have also been linked to other benefits such as increased job commitment among employees (e.g., Ferris et al., 2001), conscientiousness (e.g., Dudley et al., 2006); better resolving of individual differences (e.g., Morgeson et al., 2005); self-efficacy (Gist, Stevens, & Bavetta, 1991) and extroversion (e.g., Kantrowitz, 2005). Therefore, present and future workforce of organisations must endeavour to build strong interpersonal skills (Budhwar et al., 2022). Particularly, the increasing trend of work collaborations due to specialties among health organisations, whereby health care workers are now required to work more concurrently with other health care worker within the same organisation or across organisations (Yang et al., 2022; Schot, Tummers, & Noordegraaf, 2020). has heightened the need for each health worker to have strong interpersonal skills.

In the light of the meaning and relevance of interpersonal skills to organisational success, several research have been carried out. While some studies focused on understanding interpersonal skills among the present workforce, only a few have considered how future workforce can be equipped with interpersonal skill before becoming members of an organisation. For example, for interpersonal skills among present workforce, Ansari, (2021) and Tripathy, (2020), emphasied the reason employees should be equipped with interpersonal skills while Deshpande, and Munshi, (2020); and Vincent, (2020), extends to look at how organisations should assist in training to acquire interpersonal skills and what impact such trainings have on the employees. On the hands, for research on equipping future workforce with interpersonal skills, even though a few research like McNamara, (2009) and Bedwell,

et al (2014) identifies and emphasise the need for early equipping of potential workforce with interpersonal skills, a lot is yet to be done in this regard.

To contribute to research and extend knowledge that concerns building interpersonal skills in future workforce, this study just like Qizi, (2020), delves into understanding interpersonal skills among university undergraduate students. Specifically, the current study focuses on final year medical students. The focus on final year medical students is due to the fact that the health industry stands as one of the most relevant industries for the existence of man (see Amann et al, 2020), and therefore its effectiveness in delivery continuous health services should be supported. Also, the final students have over their long stay in the university evidence of several academic outcome and interaction experience, which produced data needed for this study.

This research, which questions the relationship that exists between interpersonal skills and academic outcome among final year undergraduate medical students is to show whether undergraduate students in an attempt to achieve their graduate degrees are influenced by any form of practice of interpersonal skills. The aim is that the nature of relationship between interpersonal skills and academic outcome would indicate whether or not undergraduate students can strengthened their interpersonal skills while acquiring a university degree.

Consequently, the current study seeks to test the hypothesis that there is no significant relationship between interpersonal skills and academic outcome of final year undergraduate medical students of the University of Benin, Benin city. The study presents literature review, which consists of conceptual review, theoretical review and empirical review. This is followed by the methods, which include population, study sample and sampling techniques, data instrument and collection. The data analysis and discussion follow the methods and the paper ends with conclusion and recommendations, contribution and references.

Literature Review

Conceptual review

Interpersonal skills: One definition that provides a rich understanding of interpersonal skills among several definitions (e.g Graziosi, & Yaden, 2021; Lathren, et al 2021) is by

Klein and colleagues (2006). Klein and colleagues (2006:81) describe interpersonal skills as an "umbrella term" that refers to "goal-directed behaviours, including communication and relationship-building competencies, employed in interpersonal interaction episodes characterized by complex perceptual and cognitive processes, dynamic verbal and nonverbal interaction exchanges, diverse roles, motivations, and expectancies". From the definition, we draw that interpersonal skills consist of the ability of a member of an institution to listen actively and engage in oral, written, assertive and non-verbal communication. It also means the practices of relationship skills that include cooperation and coordination, trust, intercultural sensitivity, service orientation, self-presentation, social influence, conflict resolution and negotiation. Furthermore, the idea that interpersonal skills are goal directed behaviours indicate a relationship between interpersonal skills and outcomes of performance. Accordingly, the understanding that interpersonal skills is a goal directed behaviour indicates a relationship between the ability to manage interactions with others and the achievement of one's goals.

The concept of Interpersonal skills focuses on how an individual manages communication and relationships with others both within a formal space (work organisation) and an informal space (social) However, research shows that within the formal space, informal interpersonal skills are still required (Berman, 2020). Hence workplace interpersonal skills can be defined as the social connection, association, or affiliation between two or more individuals in an organization. Implicatively, developing and practicing interpersonal skills is a useful skill for all members of an organisation and the society at large.

Interpersonal skills in the health industry:

Academic Outcome: Academic outcomes are goals that indicate students' desire to increase learning by putting in studying efforts since such efforts are fundamental to success or failure. The purpose of academic endeavours is to increase knowledge or insight and gain competence in areas of study; therefore, academic outcome signifies the extent to which knowledge or competence have been gained (Maatuk et al 2022). In universities, students' academic outcome is mostly known by the different grades achieved in different courses within the discipline of study. These grades, which are annually rated indicate the level of success or failure of efforts being put in by a

student. The yearly grade referred to as grade point average (GPA) for each year are measurements of level of competence achieved (Khanna, et al 2023). Although factors such as teaching methods of university lecturers and available learning facilities alongside students' efforts of studying greatly influences the academic outcome, research indicates that other environmental and social factors such as motivation and interpersonal skills also influences academic outcome (Kiuru et al 2020).

Interpersonal skills and Academic Outcome: Exploring and developing interpersonal skills has continued to be associated with achieving intended goals. According to Obakpolo, 2015, interpersonal skills is the path to getting desired outcome because it helps to align the purpose of individuals who are in the same environments in ways that create support towards getting better results. This means that when individuals who by virtue of similar purpose interact frequently and effectively, such interactions can become a means for both physical and psychological empowerment for each to be able to perform better. Interpersonal skills, which allow people to receive, share or exchange required resources such as skills and information, therefore have the potential of contributing to each person's ability and chance of actualizing desired outcome (Klein & colleagues, 2006)). Consequently, there is a suggested connection between the ways an individual uses interpersonal skill and the outcomes of that individual's efforts. This suggestion is applied in this research by investigating the possible relationship between interpersonal skills and academic outcome of undergraduate students. Accordingly, the practices of interpersonal skills can produce good academic outcomes and vice versa.

Theoretical underpinning

This study adopts the interpersonal theory, which was first propounded in the 1950s by Carl Rogers. As a human resource/ psychological theory, it seeks to provide explanations to the dynamism of human interactions and relationships. The theory proposes that people have varied requirements and expectations that serve as a guide to how they behave, interact and sustain relationships with others (McCrae & Costa, 2003; Gross & McIlveen, 2016). It supports the notion that humans have inborn needs for high self-performance and self-validation, and this influences their behaviour to other humans. Humans therefore want positive feedback and avoid negative feedback. This theory has been utilised by other researchers such as Singh and Rani (2017) and Itzchakov and DeMarree (2022) for study on interpersonal skills within various

disciplines such as counselling, education, therapy and organisational behaviours. However, the theory has been criticised for not having a comprehensive framework that indicates which of the needs or expectations is most relevant in determining what behaviours to have and interactions and relationships to have with others (see Ranganathan & Wadhwa, 2024).

In this study, interpersonal theory is harnessed to understand the interpersonal skills and goal outcome among students. The study respondents are students in the university, who are classified as the future workers in organisations. The study utilises the interpersonal theory to guide the explanation that there is a relationship between interpersonal skills of an individual and work outcome. It therefore enables this study to provide findings and knowledge to utilize for building future workforce.

Empirical review

There have been several empirical studies on interpersonal skills within the organisation as a formal setting and informally. One of such studies was Syahrudin (2018). The research titled, the effect of interpersonal skills on the performance of the Kapuas Hulu Regency Regional Secretariat Staff. The Kapuas Hulu Regency Regional Secretariat is one of the government agencies in the capital city of the province of West Kalimantan. and accordingly, the employees are public service workers. The study, which was a quantitative study, retrieved data from randomly selected 102 employees out of the total of 137 employees. The data retrieved was analysed using descriptive and inferential statistics and the study concluded that interpersonal skills have a positive direct effect on employee performance. The study therefore recommends that the agency should adopt strategies that will improve the interpersonal skills of employees, thereby creating the chance for more productive organisations.

Another study by Ayi (2022), also focused on determining the influence that interpersonal skills have on organizational performance. In this case, the research method used was qualitative and not quantitative. The study had three objectives which were; identification of the types of interpersonal skills in organisations, relevance of interpersonal skills to organizations and the effect of interpersonal skills on the performance of organizations. Drawing from the Social Exchange Theory as propounded by George Homans in 1958, the study utilized data from secondary

sources such as books, journal articles, and periodicals. Retrieved data was subjected to content analysis. The study findings revealed that interpersonal skills such as communication skills, conflict management skills, positive attitude, leadership skills, good and team work are significantly relevant for improving organizational performance. The study suggests that invariably, good interpersonal skills is a prerequisite for the reduction of conflict among employees and the increased chance of better organizational performance.

From the above two empirical reviews, it can be noted that more investigations on interpersonal skills have focused on present workforce in organisations while ignoring the preparation of future workforce to allow organisations to have employees who immediately when employed have the required interpersonal skills. Nevertheless, one of the very few studies which have examined interpersonal skills as it concerns future workforce was Bedwell, Fiore, and Salas, (2014). The research; developing the future workforce: an approach for integrating interpersonal skill into the MBA classroom, reviewed literature to recommend educational techniques that can be used by instructors to add interpersonal skills training for students while teaching. Although the study's aim was to prepare individuals for the work environment, its weakness of relying on secondary data (literature) can be critique. Consequently, the current research fills the identified gap by utilising primary data derived from the use of questionnaires. In addition, the current study also fills the gap of inadequate research on interpersonal skills that focuses on future workforce.

Methods

Population, Study Sample and Sampling Techniques.

This study utilised a quantitative research approach through hypothesis testing. The method employed is the survey method. As a causal study, the study investigated and analysed the relationships that exist between interpersonal skills as the independent variable and academic outcome as the dependent variable. The population in this research was the entire 130 final year undergraduate medical students of the university of Benin, Benin city, Edo state, Nigeria, as at 2019/2020 academic session. The population figure was obtained from the record of the Academic planning division of the University. Due to the large size of the population, it was necessary to determine

the study sample, and this was achieved using the Taro Yamane (1967) formula of sample determination as given below

$$n = \frac{N}{1+N(e)^2}$$

Where n = the required sample size

N = the population size

E = level of precision (usually 5% or 1%)

1 = constant

Using a precision level of 5 with the population size of 130 the sample size is calculated to be 98.67, which can then be rounded up to 100. Therefore, a total sample of 100 undergraduate final year medical students of the university of Benin was used for the study.

Data Instrument and Collection

The study data collection instrument was the questionnaire, which was subjected to the assessment of academics and professional human resource experts and had a Cronbach alpha coefficient of 0.721. The questionnaire had two sections, which were; Section A and Section B. Section A was to draw data on for respondents' demographic (See Table 1) and Section B to retrieve data for the impact of interpersonal skills on academic outcome (See Table 2,3,4 and 5). The questions were on a four Likert rating scale which were Strongly Disagree, Disagree, Strongly Agree, Agree. The data retrieved from the questionnaire was subjected to linear regression using Statistical Package for Social Sciences (SPSS) version 2022.

Data analysis and discussion of findings.

Tables 1, 2, 3, 4, and 5 below present the analysis of the study data. Table 1 shows the demographics of the 100 respondents and Table 2 presents the operationalisation of the relationship between interpersonal skills and performance. Table 3, 4 and 5 presents the model summary, ANOVA and coefficients of the relationship between interpersonal skills and performance. Discussion of the study findings is presented after the data analysis.

Data Analysis

Table1: Respondents Demographic factors

S/N	Demographics	Categories	Frequency	Percentage
1.	Gender	Male	55	55
		Female	45	45
		Total	100	100
2.	Age	20-25	83	83
		25-30	17	17
		Total	100	100

Source: Field Survey, 2022.

Table1 above presents gender, age, study level, and course duration of the respondents as the demographics of the study respondents. Out of the 100 respondents, 55 representing 55% of the respondents were male, while 45 representing 45% were female. The Table also shows that the majority of the respondents were within the ages of 20-25 years with a frequency of 83 representing 83% of the population of the study, followed by those within the ages of 25-30 years with a frequency of 17 which represents 17 percent of the population. The demographics of the respondents show that the study had more than females and more who were 20-25 years old, than those who were 25 to 30 years old.

Table 2: Interpersonal Skill Among Students

Statement	SA f (%)	A f (%)	D f (%)	SD f (%)	Total	Mean	Std. Dev	Remark
I surround myself with serious minded friends and this affects my performance	3 (3%)	91 (91%)	6 (6%)	- (-)	100 (100%)	2.75	0.435	Agreed
Those close to me often complain that I don't treat them right and this affects my performance	6 (6%)	93 (93%)	1 (1%)	- (-)	100 (100%)	1.65	0.479	Disagreed
I find it difficult to bond well even with those close to me and this affects my performance	15 (15%)	82 (82%)	2 (2%)	- (-)	100 (100%)	1.52	0.522	Disagreed

I'm usually able to influence the way other people feel and this affects my performance	17 (17%)	80 (80%)	3 (3%)	- (-)	(100%)	2.06	0.750	Agreed
Mean	10.5 (10.5%)	86.5 (86.5%)	3 (3%)	- (-)		1.99	0.550	**Agreed**

N=100; Key: 1.00 – 2.0 = Disagreed; 2.1 and above = Agreed

Source: Author's estimation from SPSS 22, 2023.

Table 2 shows the respondents' responses to the questionnaire administered. The data showed that the respondents agreed to the statement in item 1 which is "I surround myself with serious minded friends" with a mean of 2.75 and standard deviation of 0.435 which means that students tends to surround themselves with friends who take their academics seriously; the respondents disagreed with the statement in item 2 which is "Those close to me often complain that I don't treat them right" with a mean of 1.65 and standard deviation of 0.479 meaning that those around them do not complain of ill-treatment; similarly, the data showed a disagreement with statement in item 3 which states "I find it difficult to bond well even with those close to me" with a mean of 1.52 and standard deviation of 0.522 indicating that students do not have difficulty in bonding with those around them. Item 4 which is "I'm usually able to influence the way other people feel" had a mean of 2.06 and a standard deviation of 0.750 indicating an agreement to the statement; thus, meaning that students are able to exact considerable influence on the way other people feel. Conclusively, the Group mean of 1.99 indicates a low level of interpersonal skills among students.

Table 3: Model Summary of the Relationship between Interpersonal Skills and academic outcome
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.241[a]	.058	.048	.17837

Predictors: (Constant), Interpersonal Skill

The model summary result from the regression output is presented in the table above. The model summary result from the regression output is shown in the table above. The R Squared measures how well the independent variables (interpersonal relationship) explain changes (variations) in the dependent variable (implication on academic

outcome). The R Squared value of .058 shows that the explanatory variables account for about 5.8% of the variance in the dependent variable. This is a strong explanatory strength.

Table 4: ANOVA of the Relationship between Interpersonal Skills and academic outcome

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.192	1	.192	6.038	.016[b]
	Residual	3.118	98	.032		
	Total	3.310	99			

a. Dependent Variable: Student Academic Outcome

b. Predictors: (Constant), Interpersonal Relationship

Table 5: Coefficients of the Relationship between Interpersonal Skills and academic outcome

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.741	.135		20.289	.000
	Interpersonal Relationship	.152	.062	.241	2.457	.016

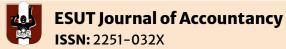a. Dependent Variable: Academic outcome

Source: Author's estimation from SPSS 22, 2023.

The table above displays the analysis of variance (ANOVA) result on impact of interpersonal skills on academic outcome of students in the University of Benin. The F statistics value of 6.038 is significant at .016 (5% significance level). Consequently, interpersonal skills as the explanatory variables are significant drivers of academic outcome as the dependent variable.

The study Hypothesis: H_o: interpersonal skills have no significant effect on performance of undergraduate students in the University of Benin.

The result from Table 5 indicates a positively significant relationship between the dependent (academic outcome) and the independent variable (interpersonal skills) given a p-value of 0.016. This implies that the extent to which students relate with their peers (and significant others) have significant bearing on their overall academic outcome. Since P-value is significant at less than 5%, therefore the null hypothesis which states that "there is no relationship between interpersonal skills and academic outcome" should be rejected.

Discussion of findings

Although the study on developing interpersonal skills in the future workforce may be scarce and particularly so in empirical research, there are similarities between the findings of this study and assertions of other authors. One of such findings is that while it may appear as though, individuals would only have the opportunities to develop their interpersonal skills when they become members of organisations, such interpersonal skills can also be developed while studying at the university to obtain the required academic qualification. This finding that interpersonal skills can be developed while in university correlates with the propositions of McNamara (2009) and Bedwell et al (2014). Another findings as extracted from the secondary data (existing literature) utilized for this study indicates that organisations' fundings on training employees towards developing interpersonal skills can be reduced if incoming members already developed strong interpersonal skills (American Management Association. 2012).

Furthermore, the study revealed that there is a significant relationship between interpersonal skills and academic outcome among undergraduate students in the university of Benin. This finding as reflected in Table 3,4 and 5 means that the strength of a student's interpersonal skill as evident in the level of student academic outcome is supported by Okwuduba, et al2021). Although some other studies (e.g. Tus, 2020) show a significant relationship between academic stress, academic motivation and academic outcome of students without mentioning interpersonal skills, there is no outright outcome that negates the findings of this study. In fact, Akour, & Alenezi, (2022). proposes just as intended by this study, that there is a need for universities to be aware that besides academics, students can be supported to develop strong interpersonal skills.

Conclusion and Recommendations

Drawing from the study, it is imperative to reach a conclusion that interpersonal skills, even though required from the present workforce of an organisation, should also be emphasized for future workforce. This emphasis can be tied to understanding how undergraduate students, who became the workforce of organisations in the future, are able to through their present activities build strong interpersonal skills. Since the study found out that there is a significant relationship between interpersonal skills

and academic outcome (see Table 5), while endeavouring to achieve excellent academic outcome, undergraduate students can begin to build strong interpersonal skills. Indicatively, therefore. To ensure that organisations do not suffer the consequences of employing individuals with poor interpersonal skills or go through the process of increased expenditure for training of new employees to have the required level of interpersonal skills, future workforce should engage in improving interpersonal skills. This is especially so, due to the increasing need for employees in organisations to constantly need strong interpersonal skills to be effective while working in teams within and across organisations.

Consequently, the study recommends that undergraduate medical students, who are usually expected to be engrossed in study, still take on activities with potential of improving on their personal skills. Some of these activities include engaging in more informal academic and extracurricular activities. Some of these activities are getting involved in group academic activities that allow for more communication and interactions with other students. Students should also get involved in extracurricular activities that would provide them the chances to socialize with other students and in the process learn to build on emotional intelligence for interpersonal skills. On the other hand, this study recommends that universities should enable conducive environments that empower students to feel safe and freely engage in interacting with other students. Conducive environments can be created by making and implementing policies that provide safe physical and psychological spaces that eases interactions between students. Some of the policies could center on providing adequate securities, basic infrastructures and counselling services.

Contribution of the study

This study increases the awareness that strong interpersonal skills are fast becoming a prerequisite for being able to work in today's organisations, especially the health industry. This is due to the increasing need for health workers to constantly work as teams within and across organisations in order to leverage different health specialties and meet the overwhelming increasing demands for good healthcare. This study therefore increases the emphasis that strong interpersonal skills can be learnt before becoming a member of organisation such that the organisation is spared the incessant spendings on training of new employees to develop their interpersonal skills. The

knowledge provided by this study goes beyond increasing knowledge to include practical implications for students as future workforce. Students can consciously involve improving interpersonal skills while studying to active high GPAs. University authorities can also make policies that affects students' lifestyle aimed at increasing the chances of undergraduate students being able improve

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