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Building a Performance Outline for Health Care Workers at Teaching Hospitals, Nigeria: The Role of Different Leadership Styles

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***Abstract*—**Investigating the effects of transformational and transactional leadership styles on the performance of healthcare employees at the University Teaching Hospital (UNTH) in Enugu, Nigeria, was the goal of the research. The respondents were asked to fill out a structured questionnaire. The respondents were chosen using a straightforward random sampling technique and consisted of 370 health workers at the hospital. The result of the analysis revealed that transactional and transformational leadership style has a positive while ambidextrous leadership has a negative effect on healthcare workers' performance in UNTH, Enugu. Therefore, the management of public hospitals that have the capacity to change their top management approach to leadership styles will gain substantial support from their employees' thereby increasing organizational commitment and performance among health workers. This will have remarkable social implications, one of which is a change in the work culture and attitude of medical personnel from the seemingly anti-community of patients to friendly engagement and treatment of patients leading to a harmonious coexistence among these individuals in society. Investigating ambidextrous leadership and the use of nonparametric analysis is unique and has brought knowledge to leadership literature.

***Keywords*—**Workers' performance, transformational leadership, transactional leadership, governance quality, ambidextrous leadership.

I. Introduction

SOUTHEAST Nigeria is a geo-political zone comprising of five states to include Anambra, Imo, Abia, Ebonyi and Enugu. These states can boast of at least one University teaching hospital usually situated in a location where residents could easily access healthcare facilities. In Nigeria, a university teaching hospital is a healthcare center, equipped with state-of-the-art facilities for the training of doctors in various fields and other health care practitioners. The hospital renders health services that may not be obtained in primary health care centers and private hospitals scattered in the nooks and crannies of most states in South east Nigeria. At the hospitals under review, individuals are appointed or elected to shoulder the role and responsibilities of leadership. This suggests that human resources for health are cornerstone in the delivery of health care but remain a crippling barrier in low-resource settings where human resources are in short supply or poorly managed [1]. The shortfall has significantly impeded Nigeria's progress of improving the quality of services within the health sector, hindering the country's ability to meet the Sustainable Development Goals (SDGs). The scenario in South East Nigeria (SEN) is less desirous compared to other regions. For instance, evidence from extant studies [2], [3] has shown South-East as the second worst hit region in health crisis such as strikes. In a review of national industrial action embarked by health workers in Nigeria between 2016 and 2017, South-East recorded three strikes, Southwest had about eight strikes, North-Central and South-South recorded two each [2]. These strikes have affected the performance of health care workers vis-a-vis health sector performance in Nigeria as reported by [4] including the South Ester region. Unfortunately, health workers in Nigeria's health care system often complain of low motivation, inadequate and outdated medical resources, limited career development opportunities, lack of promotion opportunities and overwhelming work overload as a source of frustration and demotivation among health workers [5]. This lack of motivation manifests in widespread absenteeism, high attrition rate among health workers and incessant strikes [6]. In terms of absenteeism, it has been reported that participation of health care workers in primary health care services is abysmal [7] and this could be interpreted to means that most of the workers do stay away from work. In latest occurrences, NARD in August 2022 said its members in Abia State have been on strike for almost a year over unpaid salaries the same time in which the Federal High Court in Enugu restrained the leadership and members of different associations for health worker from embarking on strike action in the State. The cause of these crisis may not be far from leadership problem. This is because the recurrent reason of selected health worker industrial action in Nigeria from 2010 to 2016 was found to be leadership, administration and governance [3]. With the rising crisis occasioned by the activities of Biafran nation agitators – the Indigenous People of Biafra (IPOB), the health care delivery in the region is greatly impaired and a different leadership approach is required to see how best to keep health workers in the region. It follows therefore that for health worker to improve their performance towards the attainment of Sustainable Development Goals (SDGs), countries need to create "real health care leaders" not just managers, to drive the agenda of SDGs [5]. As a result, a cross-cutting pillar within health system strengthening approaches includes improving leadership to create a health workforce that is responsive, fair, and efficient given the available resources and circumstances. This is because leadership styles have been associated with improved

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working environments and increased retention of excellent health professionals. In other words, strong leadership, like effective leadership style has been adjudged the most effective way of achieving high-quality health care delivery. Also, the strength of the leadership within an organization was linked to the type of leadership style adopted by the organization [8] as well as employee work behavior [9].

Leadership in health care is concerned with mobilizing, influencing and communicating the organizational vision to inspire, motivate and empower others to work towards achieving set vision [10]. Effective leadership requires some managerial skills, and vice versa. Two leadership styles widely discussed in the literature are transformational and transactional [8]. Transformational leadership can guide subordinates to feel intrinsically motivated to perceive their performance in terms of the interest of the general good, so they strive to promote organizational goals [8]. Elements of transformational leadership include intellectual stimulation by encouraging worker creativity and innovation, encouragement and support through mentorship, inspirational motivation through presenting a clear vision, meaning of task, empowering and giving subordinates challenging tasks. Leaders also have charisma and serve as role models who take initiatives [11], [8]. Transactional leadership is defined as leadership style that ensures that workers work according to the rules and regulations of the organization [8]. Transactional leadership style punishes those who do not work hard and rewards those who are hard working. It also includes leaders who would wait till things go wrong, then they come in to punish, correct and teach, it is a form of carrot—stick approach to leadership [12]. Reference [13] contends that transactional leadership is more feasible to organizations in modern times in getting their staff to perform tasks for a fee. However, this researcher argues that such an approach gives room to mediocrity, as it is ineffective and counterproductive, because staff might not take initiatives but will only wait for events to occur before they act.

The above arguments suggest that the adoption of the conventional leadership styles of transactional or transformational is less likely to be effective at eliciting desired work behavior at an organization including hospital where a lot of humane culture and attitude to work is needed for effective health care delivery. In support of this argument, [14] said that employees in the present era need humanistic care in much the same way organizations grave for high performance. Leaders would therefore have to face varied and often times, conflicting and mutually exclusive demands that could require a combination of transformational and transactional leadership tenets simultaneously. In this scenario, the authors argued that the previously used leadership styles will no longer help in meeting these diverse needs of contemporary organizations while poor health care delivery occasioned by the observed poor physician-patient interaction persisted [15]. Therefore, new paradigm in strategic management and leadership practices is the idea of ambidextrous leadership. Ambidextrous leadership combines two seemingly opposing leadership philosophies to produce a cohesive approach that successfully reduces conflict [16], [17]. This leadership style was found to be a pivotal antecedent to good follower behavior though not follower work outcome [18]. Except for some few studies [19]-[23], [16], none of which was done on health care worker performance, not much empirical work has been done on ambidextrous leadership which is a combination of leadership styles as inferred from the work of [14]. This has created a gap in the literature that needs to be filled to resolve the problems associated with the gap. Whether or not the deployment of the conventional (transactional and transformation) and the emerged (ambidextrous) leadership style could, to a significant extent, lead to better health care worker performance is a problem this study seeks to investigate in order to contribute to ways in which health care delivery in the region and Nigeria at large can be fostered while striving to meet the demand of the Universal Health Coverage (UHC). Therefore, it is paramount that research is conducted to assess the link between transactional, transformational land ambidextrous leadership style and the performance of health workers in UNTH, Enugu in Enugu State.

II. Literature Review and Hypotheses Development

A. Work Performance in Health Care

Performance is a complex phenomenon, and its meaning is often contextualized. This assertion is based on the explanation of the concept of performance found in many extant literature [24]-[27]. In many of these studies, the definition of performance within the context of health worker is rooted on two categories of outcome provided by the World Health Organization which are effect and output [1]. Under effect, performance comprises four elements namely availability, productivity, competences and responsiveness; under output, performance is defined in terms of retention, absence, accountability, skill and knowledge, motivation and satisfaction and working condition. This definition was adopted by [28] and defined worker performance as comprising four intervention results namely output, outcome, effect and impact. From this perspective, performance of health worker is defined using both quantitative and qualitative indicators including staff availability, competence, productivity and responsiveness [29].

In the words of [26], work performance by a health care personnel or health worker performance is about the way a health worker behaves at workplace in terms of their work effectiveness, quality and efficiency at task level and is typically measured against established best practice or standards of care. For [27], performance in the context of health care is measured in terms of client-related outcomes, like the use of health services, while also responding to client or other actor behavior. These interconnected features include motivation, self-esteem, competencies, attitudes, adherence to guidelines, and ability to facilitate community agency. Closer to this line of explanation is [25], who defined health worker performance by inference as the qualitative and quantitative results achieved by a health care worker in a designated workplace in line with the assigned duties. Reference [30] said performance is presence, quality and productivity, averring that once presence is low, quality and productivity will also be low.

Presence connotes availability of healthcare worker; quality connotes outcome while productivity is concerned with efficiency. Reference [31] defines the performance as the result or level of success of a person or overall, during a certain period in carrying out his duties compared with various possibilities, such as work results, targets or targets or criteria that have been determined in advance and agreed upon. Reference [32] states that performance is the result obtained by both profit- and nonprofit-oriented organizations over a defined time. Reference [33] suggests that the work quality, often known as the quality of work, refers to the level of achievement in terms of suitability and high preparedness. Excellence in work results in recognition, advancement, and growth of the company by consistently enhancing knowledge and skills to keep up with the ever-changing field of science and technology. The timing indicator refers to the degree to which established target timeframes for completing activities are followed, ensuring that work is completed according to the predetermined timetable. Initiative encompasses the ability to recognize one's own capabilities and the willingness to independently initiate and complete tasks and obligations without relying on external cues or urges. Subordinates or employees can carry out tasks without having to rely continuously on superiors. Capability that is among several factors that affect a person's performance, it turns out that which can be intervened or treated through education and training is an ability factor that can be developed.

Communication is the interaction carried out by the limitation to subordinates to express suggestions and opinions in solving problems encountered. Communication will lead to better cooperation and relationships that will be more harmonious between employees and superiors, which can also lead to a sense of unity in harmony. The health sector is labor intensive, where service quality and performance are directly influenced by health workers satisfaction and motivation. There are numerous publications recognizing effective leadership of health care as a core element for developing qualitative organizational culture and effective performance in health care provision. Significant positive associations between effective styles of leadership and high levels of patient satisfaction have been reported through providing a healthy work environment for the service providers [32]. In summary, this research considers health worker performance [33] as the ability to satisfactorily deliver desired health care services professionally, ethically and with due sense of accountability. Theoretically, the resource-based theory and ambidextrous leadership theory have supported the positive effect on leadership styles on performance.as applied in previous studies, it is interesting to know that the application of these theories in explaining health worker behavior in response to leadership styles could provide significant insight into health sector management and remarkable theoretical contribution to the literature.

B. Transformational Leadership and Work Performance

According to [34], followers of the transformational leadership style express their strong moral values through their efforts to increase their awareness of ethical issues and mobilize resources to reform institutions. According to [12], transformational leadership is defined as a leader who strengthens cooperation and team learning with his subordinates. Reference [12] further states that transformational leadership is defined as a leader who has the power to influence his subordinates in a certain way. In the meantime, transformational leadership, according to [35], is the leadership approach used by a manager if he wants a group to increase its authority, have performance outside of the status quo, or accomplish an entirely new set of organizational goals. By engaging in appropriate behavior at each stage of the transformation process, transformational leaders can successfully alter the status quo in their organizations.

Reference [12] claims that transformational leadership is based more on commitment and trust than it is on exchanging favors or praising followers solely for their performance [36]. By assisting their followers in seeing old problems in new ways, transformational leaders are able to motivate, inspire, and support each follower's growth. Reference [12] explains the characteristics of transformational leadership, including charisma, which is the capacity of leaders to inspire pride, trust, and respect in their subordinates as well as the ability to clearly convey the goals and objectives of the organization they lead, the degree to which leaders convey intriguing ideas, employ symbols to direct the efforts of followers, and clearly state important objectives. Intellectual stimulation is the behavior of leaders who support their team members' constant innovation and creativity in problem solving, providing fresh perspectives to inspire their team members to reevaluate conventional methods of operation and persuade them to approach issues from different angles. Individual consideration is how constantly concerned leaders act. Transformational leadership has been noted to be suitable for transforming individuals and the entire organization, which faces a dynamic evolving situation and requires learning to facilitate adoption, transformation of organizational culture and progress [37], [13].

H1. There is no significant relationship between Transactional leadership style and HealthCare workers performance at UTHE

C. Transactional Leadership and Work Performance

The definition of transactional leadership is indivisible from [38], that is leadership which deals with motivating supporters by calling on their personal interests [34]. Transactional leadership style can encompass values, but those values are appropriate to exchange processes such as honesty, responsibility, and reciprocity. Reference [12] shows that the association of transactional leaders with their workers is demonstrated in three things, the leader knows what the assistants want and will describe what the assistants will get if the job is in line with expectations. The leader exchanges the attempts made by assistants in return. Leaders are responsive to the individual interests of assistants if those interests are proportionate to the value of the work done by assistants. Reference [12] similarly maintains that the features of transactional leadership consist of two aspects: contingent rewards, where the leader notifies his or her assistants about what they must do to receive certain rewards, and promises that

the assistants will get what they want in exchange for their efforts. Exception management is the leader attempting to sustain the achievements and mechanisms of his assistants, if there is a fault the leader instantly acts to improve it. Studies suggest that transactional leadership can only be exercised when the leader has power to reward and to punish, which is lacking in most public sector organizations [13], [39]. Though, [11] argues that transactional leadership has proven to be effective for change and efficiency compared to other leadership styles. Reference [40] suggests that, at a simplistic level, the distinction between transactional and transformational leadership marks the difference between just managing vs. managing as well as leading. A study of nurses in Malaysia found that there was a strong connection between job satisfaction and transformational leadership compared to transactional leadership [11].

H2. There is no significant relationship between Transformational leadership style and HealthCare workers performance at UTHE.

D. Ambidextrous Leadership and Work Performance

Ambidextrous leadership promoted by academics as a distinct feature adopted by leaders to carry out exploration and exploitation activities [19]. In the opinion of [16], exploration comprises exploring, taking risks, experimenting, and innovation in organizations, while exploitation is related to improvement, efficiency, implementation, and execution of a target. Ambidextrous leaders have to achieve optimum balance in exploiting and exploring all activities within an organization to successfully achieve set targets [16]. Leadership is crucial to achieving superior performance in an organization [41]. Several studies on association models have revealed the inconsistent and complex relationship between leadership and performance [42]. Nonetheless, a study conducted by [42] described a new model of leadership for improve performance by covering a broad range of behaviors and approaches. Reference [42] stated that leaders need to increase exploration and exploitation behavior to achieve performance innovation [23].

Ambidextrous leadership is one of such new models of leadership which has not been sufficiently considered in empirical studies in the health care sector. In past studies, it is argued that the use of one specific leadership style such as servant leadership, ethical leadership, transformational and transactional leadership etc., has not sufficiently addressed leadership-related problems faced by organizations. Similarly, studies on ambidextrous leadership focus on power rather on effect on worker performance and it has been found to be a necessary part of management process [43]. Some past studies have supported a positive ambidextrous – performance effect in terms of follower (health worker) behavior [19], [41] [16]. Despite these, there is however, an argument that leaders in the present era face the paradox of being able to motivate followers or workers to explore opportunities and engage in innovative behaviors and, simultaneously, to make them adhere to standards and ensure high levels of performance. This may not be different within the health care sector. It is on this background that the hypothesis below is formulated.

H3. Ambidextrous leadership style has no significant effect on HealthCare workers performance at UTHE.

From the above review, the conceptual framework that is used in this study is presented in Fig. 1.

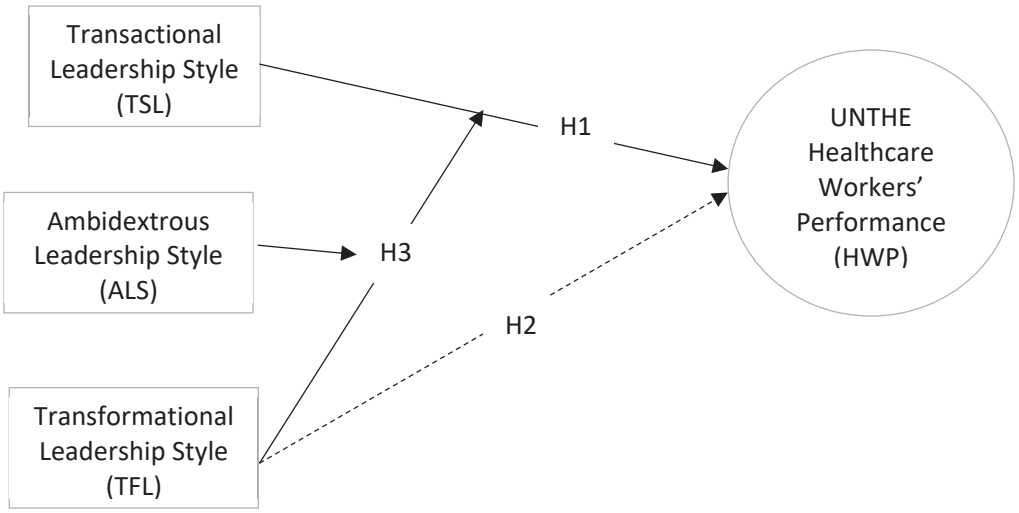

Fig. 1 Research model

III. Methods and Hypotheses

A survey-based approach was employed in this study to test the proposed research model. For this study, we used quantitative cross-sectional method with sets of survey questionnaire served to health workers at various departments at the hospital. The survey items used a 5-point Likert scale ranging from 1 "strongly disagree" to 5 "strongly agree. The sample size was determined based on the formula suggested by [44]. To select participants from the population of 395, which are a total number of staff employed in 16 departments or units at the University of Nigeria Teaching Hospital (UNTH), Enugu (UNTHE henceforth), a simple random sampling technique was employed. Of the 395 questionnaires distributed, 370 were

useful for statistical analysis in this study. The three variables used in this research are transformational leadership style (TFL), transactional leadership style (TSL) as independent variables and health worker performance (HWP) as the dependent variable. A Multifactor Leadership Questionnaire (MLQ) based on a five-point Likert scale was used to measure the transformational leadership style/transactional leadership and performance of health workers in UNTH, Enugu. The MLQ was designed and developed by [45] as cited in [46] and commonly used for leadership study.

IV. Data Analysis and Results

The results of this study begin with a preliminary assessment of the data collected from the respondents for analysis. From the data, no missing data were found in it. Thus, the data were used with no need for the application of the protocol for missing data replacement.

A. Analysis of Respondents' Demographic

From the questionnaire collected, the demographic information of the respondents was built to assess the quality of persons and opinions used in the analysis. The results of the demographic analysis of the respondents are presented in Table I.

TABLE I
Presentation of Demographic Data

Demographics	Options	Response	Percent
Gender	Male	181	48.9
	Female	189	51.1
Age	Below 20 years	69	18.6
	20 - 30 years	87	23.5
	31 - 40 years	99	26.8
	41 - 50 years	71	19.2
	Above 50 years	44	11.9
Education	SSCE	93	25.1
	OND	70	18.9
	HND/BSC	143	38.6
	MSC/MBA	53	14.3
	PhD	11	3
Work Experience	1 - 5 years	139	37.6
	6 - 10 years	131	35.4
	11 - 15 years	63	17
	16 - 20 years	28	7.6
	21 years and above	9	2.5

Table I shows that the numbers of male and female respondents are similar, with a percentage of 48.9% and 51.1%, respectively. Furthermore, the composition of respondents used for this study consisted mostly of those aged between 31-40 years with a percentage of 26.8%. We could also assume that over the half of respondents still have the basic education with a percentage of 25.1%, while the rest have higher education. In terms of work experience, we can say that only 37.6% respondents have less than 6 years while the rest have more 5 years of experience on the job. These demographics information points to the fact that the respondents used in this study were quite suitable and their opinions can be considered to represent the true practice of leadership in the studied organization.

B. Analysis of Prominent Leadership Style at UNTH

Concerning the most prominent leadership practice at UNTH, the results are presented in Table II and shown graphically in Fig. 1. From the results, we can say that leaders at UNTH exhibit a combination of different dimensions of leadership practices.

TABLE II
Leadership Styles Practices at UNTH, Enugu

Leadership Styles	Not experienced	Rarely experienced	Fairly experienced	Well experienced
Transformational				
Inspirational communication	147 (39.7%)	76 (20.5%)	93 (25.2%)	54 (14.6%)
Supportive leadership	139 (37.6%)	131 (35.4%)	71 (19.2%)	29 (7.8%)
Intellectual stimulation	93 (25.1%)	70 (18.9%)	154 (41.6%)	53 (14.3%)
Personal recognition	5 (1.4%)	29 (7.8%)	220 (59.5%)	116 (31.4%)
Transactional				
Short term goals Focused	16 (4.3%)	52 (14.1%)	194 (52.4%)	108 (29.2%)
Structured policies and procedures	4 (1.1%)	47 (12.7%)	189 (51.1%)	130 (35.2%)
Inflexibility	9 (2.4%)	35 (9.5%)	171 (46.2%)	155 (41.9%)
Change Resistance	21 (5.7%)	57 (15.4%)	160 (43.2%)	132 (35.7%)

For clarity, the above result is presented in graph form as shown in Fig. 2.

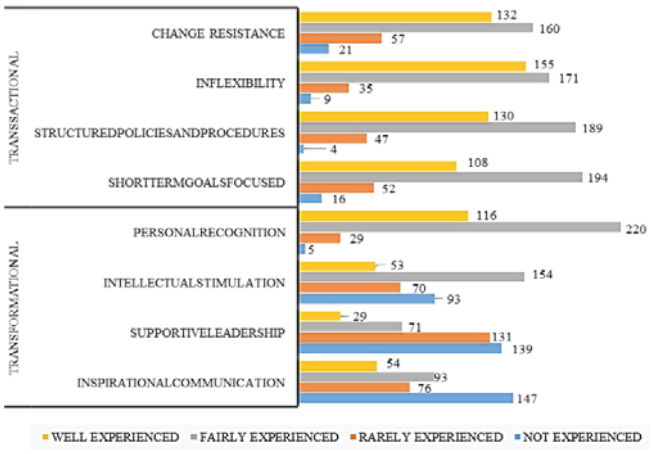

Fig. 2 Prominent leadership practice and style at UNTI

From Fig. 2, as extracted from Table II, many workers attested to the fact that they have had on average, a fair experience on the practice of transactional leadership than they do with transformational leadership with the highest dimension being the focus on short goal attainment given the highest number of 194 respondent. This was followed by structured policies and procedures with a total of 189 respondents and by inflexibility with a total of 171 respondents and finally by resistant to change with a total of 160 respondents. However, workers at UNTH have not experienced inspirational communication and support leadership but have had fair experience of personal recognition with a total of 220

respondents as well as intellectual stimulation with a total of 154 respondents. In all, personal recognition, which is a dimension of transformational leadership practice, is the most prominent leadership practice at UNTH followed by short-term focus which belong to the transactional leadership practice. These types of leadership practices can be termed ambidextrous.

C. Descriptive Analysis of Variable

Descriptive analysis results, presented in Table III, reveal that the knowledge of respondents on the research statements concerning the three key variables of the study is high. On average, the IQ level of the respondents on health worker performance, transformational leadership and transactional leadership style can be graded 83.68%, 78.9% and 75.12% respectively in that order.

TABLE III
DESCRIPTIVE STATISTICS OF ITEMS AND CONSTRUCT

Constructs	Items	Mean	SD
Health worker performance	**HWP**	**0.8368**	**0.0214**
	HWP1	0.827	0.019
	HWP2	0.826	0.023
	HWP3	0.829	0.027
	HWP4	0.862	0.018
	HWP5	0.84	0.02
Transformational Leadership	**TFL**	**0.789**	**0.02625**
	TFL1	0.79	0.027
	TFL2	0.785	0.025
	TFL3	0.776	0.03
	TFL4	0.805	0.023
Transactional Leadership	**TSL**	**0.7512**	**0.0298**
	TSL1	0.818	0.026
	TSL2	0.763	0.031
	TSL3	0.821	0.025
	TSL4	0.591	0.041
	TSL5	0.763	0.026

D. Measurement Model Analysis

Measurement model analysis was performed to provide a confirmatory assessment of the consistency and validity of the manifest variables. Consistency assessments are done by individual manifest and construct reliability tests. While validity of the variables is tested based on convergent and discriminant validity. Individual manifest reliability describes changes in that item or individual manifest relative to the latent variable by calculating standardized outer loadings of the item. This analysis was carried out in stages. The first stage was to assess the model was to investigate the value of loading factor of each individual manifest in the model. This was done performed by running the PLS algorithm function in SmartPLS. Conventionally, Manifest variables with outer loading 0.7 or higher are considered highly satisfactory. While loading value of 0.5 is regarded as acceptable, in this study, the manifest variables with loading value of less than 0.55 were eliminated to increase the composite reliability. After running the algorithm, we found that three of the individual manifests (TFL5, TFL6 and TSL) were below the threshold of 0.55 with the value of 0.517, -0.064 and 0.052, respectively. Based on this finding, we removed the variable and run the test once again and the final iteration result is presented as loading in Table IV.

TABLE IV
ITEM LOADING, RELIABILITY, VALIDITY AND VIF

Manifest variables	Loading	CA	CR	AVE	VIF
HCWP1	0.828	0.894	0.922	0.702	2.313
HCWP2	0.828				2.569
HCWP3	0.831				2.317
HCWP4	0.862				2.644
HCWP5	0.839				2.420
TFL1	0.792	0.800	.0869	0.624	1.622
TFL2	0.786				1.625
TFL3	0.777				1.583
TFL4	0.805				1.594
TSL1	0.820	0.811	0.869	0.573	2.117
TSL2	0.765				1.701
TSL3	0.823				2.025
TSL4	0.592				1.267
TSL5	0.763				1.520

The second parameter for consistency evaluations, as stated earlier, is construct reliability, which is evaluated by two measures namely Cronbach's alpha (CA) and Composite Reliability (CR). Both CA and CR show how well a set of manifest variables explains a single latent construct. But comparatively, CR is considered a better measure of internal consistency than CA since it applies the standardized loadings of the manifest variables, interpretively, the scores of each of CA and CR are similar with a threshold of 0.70 being modest for CR and a score higher than 0.70 is considered appropriate threshold for CA. From Table IV, the values of CA and CR are all above the threshold indicating that our construct are reliable. Concerning the validity of our constructs, convergent validity was carried out by Average Variance Extracted (AVE) test on variables. It defines the extent of variance netted by a latent variable from its relative manifest variables due to measurement errors and a minimum score of 50% is considered appropriate. This implies that the AVE value of the construct should be 0.5 and above. The score of the AVE is also presented in Table IV. Multicollinearity was also assessed, with the value of each indicator's Variance Inflation Factor (VIF) less than 5. This shows the absence of multicollinearity problem among our constructs. Discriminant validity was performed to confirm that the manifest variable in each construct is relevant to the designated latent variable, where its cross-loading values are higher than those in any other constructs. The result is presented in Table V.

From Table V, it is observed that all the factor loadings are greater than their cross-loadings, which is a sign of discriminant validity which was also tested using the criterion suggested by Fornell & Larcker and the Heterotrait-Monotrait Method (HTMT). The results of both tests are reported in Table V. Based on the above criteria, the measurement model was evaluated by iterative process to discard the weak manifest variables from the developed model. Therefore, a total of two iterations were involved in this study, where each iteration was assess based on the criteria and it resulted in discarding three

manifest variables.

TABLE V
DISCRIMINANT VALIDITY AND FORNELL-LARCKER CRITERION

CODE	HWP	TFL	TSL
Cross loading			
HCWP1	**0.828**	0.498	0.498
HCWP2	**0.828**	0.480	0.446
HCWP3	**0.831**	0.512	0.512
HCWP4	**0.862**	0.573	0.526
HCWP5	**0.839**	0.600	0.573
TFL1	0.477	**0.792**	0.519
TFL2	0.461	**0.786**	0.458
TFL3	0.461	**0.777**	0.398
TFL4	0.534	**0.805**	0.548
TSL1	0.476	0.494	**0.820**
TSL2	0.465	0.514	**0.765**
TSL3	0.518	0.467	**0.823**
TSL4	0.356	0.296	**0.592**
TSL5	0.571	0.508	**0.763**
Fornell-Larcker criterion			
HWP	0.838		
TFL	0.613	0.790	
TSL	0.640	0.611	0.757

E. Structural Model Analysis

The next step in our analysis was to assess the hypothesized relationships. In this study, we implemented partial least square (PLS) technique to help with our data analysis. PLS is one of structural equation modeling (SEM) technique that could be used to evaluate the relationship among variables in a model. For our relationship analysis, we tested both direct and interactive relationships. This is done by running the bootstrap resampling technique with 5000 iterations to ensure stability. This provides analyses on the hypotheses and constructs' relationship based on examination of standardized paths. Results from this analysis are displayed in detail in Table V and Fig. 2.

TABLE VI
DIRECT AND INTERACTION RELATIONSHIP (H1, H2 AND H3)

Hypothesized Paths	β	SD	T stat.	P values	Decision
TFL -> HCWP	0.338	0.055	6.169	0.000	Supported
TSL -> HCWP	0.362	0.059	6.155	0.000	Supported
TFL x TSL -> HCWP	-0.095	0.039	2.448	0.014	Supported

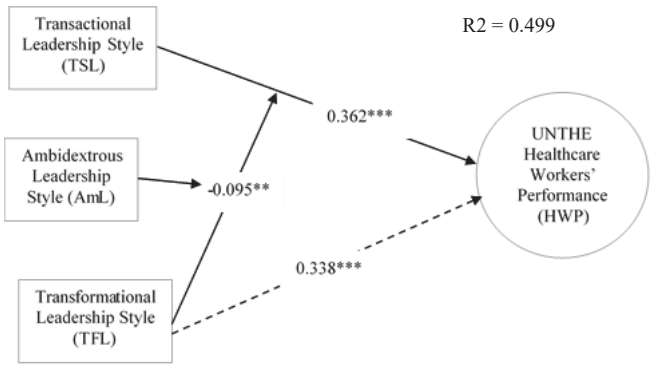

Fig. 3 Structural model results

As presented in Fig. 3, our research model explains 49.9% of variations in healthcare worker performance at UNTH. A path analysis was further conducted to test all the hypotheses that specified in this study. Table VI shows that all hypotheses are supported with t-value ranging from 2.448 to 6.169. Transactional leadership style (ß = 0.362; $p < 0.01$) was significant in explaining healthcare worker performance at UNTH. Transformational leadership style (ß = 0.338; $p < 0.01$) was also significant in explaining healthcare worker performance at UNTH. Ambidextrous (both transactional and transformational) leadership style (ß = -0.095; $p < 0.05$) was significant in explaining healthcare worker performance at UNTH.

V. FINDINGS AND DISCUSSIONS

Based on the results of the above analysis, leaders at UNTH exhibit a combination of attributes of leadership style belonging to the transactional and transformational leadership dictum. Prominent of such practice is the recognition of worker performance which is a key element of the transformational leadership followed by task-focus which is found in the transactional leadership dictum. We can say therefore that the style of leadership practiced at UNTH is that of ambidextrous leadership which is an emerging paradigm of research in leadership studies. While following authors like [14], who studied ambidextrous leadership by using servant leader and authoritarian leadership styles, our study focused on transformational and transactional leadership in a moderated research framework to examine ambidextrous leadership.

From our findings, the transactional and transformational leadership style has a positive effect on health care workers in UNTH, Enugu. The findings agree with that of [32], who argued that hospital management derived satisfaction, pride and motivation whenever they were able to exercise transformational and transactional leadership to address some of the needs of workers and their facilities. As explained further, the authors opined that motivation served as an end because managers felt good and were further inspired to work harder to realize organizational goals. Similarly, [47] reports that facility managers in South Africa were motivated to work harder, when they were able to initiate or were successful in overseeing physical infrastructure development. Effective transactional and transformational leadership practices motivated some of the health workers in exercising power positively by aspiring to achieve the hospitals' vision of providing quality health care to clients. Motivated workers exercised power positively by exhibiting positive attitudes in client care, which contributed to quality health care provision. Ambidextrous leadership style is found to affect healthcare worker performance at UNTH negatively. To put it differently, the practice of ambidextrous leadership reduces healthcare worker performance. Our findings are contrary to those of previous studies such as [14], [21], [20] etc., which showed a positive influence between ambidextrous leadership on CEOs, which explores and exploits employees to achieve company performance. For instance [21] found a positive effect of ambidextrous leadership on employee work outcome. Similarly, [14] who examined ambidextrous

leadership using servant leadership and authoritarian leadership found a positive relationship between servant leadership and organizational citizenship behavior and task performance, while authoritarian leadership had a negative effect on organizational citizenship behavior but a positive effect on task performance.

To the extent that organizational citizenship behavior can be likened to worker performance, we would assert that our negative effect findings is also supported by empirical work of [14]. Using a moderated research framework, our results require further studies as it seems to be inconclusive when referring to the ambidextrous theory of leadership which supported a positive effect of ambidextrous leadership on work performance as found in a study by [16], whose result were consistent with ambidexterity theory, even after controlling for employee reports of their leaders' transformational and transactional leadership behaviors as well as employees' openness to experience, conscientiousness, and positive affect. From our findings, leaders at UNTH exhibit more transactional leadership behavior which is close to being authoritarian. Our negative finding, therefore, may not be far from this leadership behavior, which seems to prioritize tasks over human well-being, even though there is a direct positive relationship between transactional leadership and worker performance. The positive effect might be due to the fact that the workers may have become immune and adaptive to such a style, which makes them committed to work, knowing the expectations.

V. Conclusion, Implications and Recommendations

Exploring the habit of transformational and transactional leadership style exclusively and interactively in the University Teaching Hospital, Enugu, Nigeria, this study has discussed prominent leadership dimensions used and how a direct and interactive or moderated research framework links each leadership practice and their combination in the context of ambidextrous leadership with performance of healthcare workers at UNTH. More specifically, it discussed how transactional and transformational leadership improves healthcare worker performance while ambidextrous leadership reduces healthcare worker performance at UNTH. Our findings offer several practical implications. In today's fast-paced environment, competing pressures force hospital management to change from a somewhat 'either–or' leadership practice into 'both–and' leadership practice. Firstly, ambidextrous leadership is adept at dealing with complex problems and increasing uncertainty. When managing worker behavior, hospital managers need to enable a preemptive approach to work, encouraging workers to use self-rule while also motivating and disciplining them. Thus, ambidextrous leadership is a helpful strategy for integrating different leadership tenets and promoting superior work performance among employees of an organization. Secondly and most interestingly, high transformational leadership in teaching hospitals motivates employees to improve their self-management skills. High transactional leadership also contributes to better task completion and job performance.

Additionally, recognizing employees whenever they perform well is essential, ensuring they can establish high levels of trust, interaction, and support, along with the formal and informal rewards for employees. The application of resource-based theory and ambidextrous leadership theory is a marked contribution of this study to existing literature. It is shown in this study that the relationship between leadership style and health worker performance is supported by these theories. Therefore, in an organization like hospitals or other health facilities, achieving desired health worker performance can be explained both theoretically and practically. As a part of the recommendation made in this study, it is stated that power is core to determining the style of leadership that hospital management can exercise in public health care institutions in Nigeria and their effectiveness. For managers to be able to exercise effective leadership in order to address workers' and hospitals' needs, which could boost frontline workers' motivation for quality health care delivery, the following recommendations have been suggested. National and health policies should aim at giving hospital managers more power and autonomy in making decisions on critical resources including the right workforce mix, infrastructure development, drugs, medical supplies and equipment. This could facilitate timely planning and coordination of activities required for effective health care delivery. Adequate resources and financial support should be provided to boost managers' capacity to meet workers and hospitals' needs. There is the need for reforms in supervision and guidelines for assessing health staff for remuneration and promotion purposes within the public health care sector. Additionally, it will be important to build hospital managers' capacity to exercise more transactional and transformational leadership styles.

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