Original Article

The Influence of Nurses' Job Demands and Job Resources on Nurses' Job Satisfaction and Turnover: The Moderating Role of Personality

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Abstract: Nursing emphasizes caring for humanity so that people, families and communities can attain optimal health and quality of life. This imposes enormous job stress on nurses; thus, experienced nurses often tend to leave while career starters do not want to venture into the profession. Although research on nurses' turnover and job satisfaction has received considerable attention in the Ghanaian context, little is known of the influence of nurse's personality on their turnover and job satisfaction, especially from the job demands and job resources perspective. This study examined the influence of nurses' job demands and job resources on their turnover and job satisfaction. The study employed the quantitative research design to collect data on nurses using several validated scales in a cross-sectional survey. The target population was all nurses working in the Tamale teaching hospital and the multistage sampling strategy was adopted to recruit 264 nurses for the study. The data collected was recorded, coded and analyzed using the Statistical Product and Service Solutions software (SPSS V.21) for windows. Pearson product moment correlation, linear regression and hierarchical regression analysis were used to test hypothesis. The study was male dominated (55.3%) and the modal age of respondents was 29-38 years. The study established a causal relationship between nurses' job demands and their turnover intention as well nurses' job demands and their job satisfaction. Nurses' personality was found to moderate the relationship between nurses' job demands and turnover as well as nurses' job resources and job satisfaction. It is recommended that the Ministry of health should formulate and implement merit-based pay and incentive schemes to reward loyalty and hard work. Health facility managers must also develop tailored training programs for nurse Supervisors, particularly on people management skills.

Keywords: influence, nurses' job demands, job resources, job satisfaction, role of personality

1. INTRODUCTION

Nursing is widely considered a noble profession that places strong emphasis on caring for people, families, and communities for them to achieve the best possible health and quality of life [1]. The profession is one of people-centeredness which focuses on humanity with enormous demands on the nursing staff. Nursing staff are expected to build strong bonds with patients, exhibit compassion and empathy, work as patients' advocates and actively participate in the care of both patients' and patients' relatives. Nurses job is essential to society since nurses are the foundation of the healthcare system's capability to provide high-quality clinical services [2,3]. In other words, the total care of patients, guaranteeing patient safety and well-being is the responsibility of the nursing staff. These enormous

job demands on nurses make nursing a stressful profession and deprive patients of quality care. As a result, experienced nurses often tend to leave the profession whiles career starters do not even want to venture into nursing due to the high workload, emotionally exhausting and physically demanding nature of the noble profession [4]. The excessive physical and emotional job demands on nursing staff have been significantly linked to health impairment in the form of fatigue, burnout, sicknesses and Musculoskeletal disorders (MSD) [5]. Notably, the high job demands on nurses are often downplayed, forgetting that nurses are also social beings who have family responsibilities as well [6]. The foregoing, notwithstanding, the demands on nursing staff and health care organizations have become more challenging in the 21st century. The harsh reality is that while the demands on nurses have soared, the characteristics of the work environment (job resources) that are supposed to provide support for nurses' wellbeing have dwindled. An author [7] recognized that the job resources of nurses have both intrinsic and extrinsic motivational potential to foster employees' wellbeing and work engagement. Yet this important work characteristic which has been argued to be the most important predictor of work engagement has taken a nose-dive [8]. In fact, available evidence points to the fact that job resources of nurses have the simultaneous benefit of improving job performance as well as lessening job demands and its related psychological and physiological costs [9]. Extant literature considers social support, performance feedback, self-determination, autonomy, role clarity and control as the constituents of job resources. An author [10] concurs and advanced the argument that imbalances in the two-work environment (job resources and job demands) explain why workers in a particular job may be stressed, dissatisfied or want to leave. Closely linked with the interactive role of nurses' job resources and job demands is the satisfaction with their work and counterproductive behaviours. An author [11] views job satisfaction as "the pleasurable emotional state resulting from one's job as either achieving or facilitating the achievement of one's values". Sufficient evidence exists in literature to show that nurses job satisfaction and withdrawal behaviours have relational traces to the interface of their job resources and job demands [12,13]. Nurses are more likely to be dissatisfied with their work when they are wearied following high workload or difficult tasks with little or no supervisory support or role clarity [14]. In a very recent study, emotional tiredness was seen to be caused by work stress leading to reduced job satisfaction [15]. Likewise, the inequities in nurses' job resources and demands have been demonstrated to cause their turnover intentions [16]. Whiles the preceding paragraph is noteworthy, the significant role of nurse's personalities must not be glossed over. One's personality is his persistent disposition and tendency to behave in certain ways, and it's widely used in predicting individuals work behaviours [17]. Nurse's personality has been found to help explain how they process and responds to environmental and situational cues [18]. Scholars have formulated varied personality inventories or models to determine individuals' respective personalities. The most widely researched personality model is the big five personality typology by [19]. This model identifies the elements of personality as neuroticism, agreeableness, extraversion, conscientiousness and openness to experience [20]. Studies examining the link between these elements of personality and staff's intention to leave and job satisfaction have produced incongruous results [21]. For instance, whereas favorable attributes like conscientiousness, neuroticism and agreeableness were adversely correlated with turnover intention [22], positive traits like openness to experience and extraversion were associated to turnover intention. The preceding paragraph notwithstanding, the challenges on the nursing workforce in the twenty first century is occasioned by high job demands with disproportionate job resources to function. The worst part is that these are happening in the face of critical shortages of nurses [23]. The critical shortages of nurses have been confirmed by the World Health Organization (2016). The WHO projects a near thirteen million (12.9) shortages of nurses by the year 2035. The incidence and consequences of high nurses' turnover will be devastating in developing countries, particularly in Africa, where turnover rates are estimated to be 25.9% and beyond [24]. The attrition of nurses is reported to have created health care crisis in some African countries and has adversely affected provision of quality care to patients

(Ayalew et al., 2021). The World Health Organization [25] has long hinted that of the fifty-seven (57) countries reported to have critical shortage of nurses, thirty-six (36) of them are in Africa. In Ghana, the nurse to population ratio has dwindled from nine hundred and fifty-nine (959) in the year 2014 to five hundred and forty-two (542) in the year 2015 [26] giving an indication of critical shortage of nurses as it puts the nurse per 10000 population at 2.5. The situation is exacerbated by the fact that the rate at which trainee nurses intend to leave far exceeds the rate at which they can be trained to replace existing staff. High nurse turnover is a significant issue in Ghana's health care setting, affecting the health industry's quest to deliver and maintain quality care [14]. Addressing this issue has the probability of enhancing the quality of patient care in the majority of the country's health-care facilities. Worryingly, because of the related difficulties of working in the health sector, more nurses are leaving Ghana, either for better conditions in the developed economies or to pursue other careers [21]. This study therefore seemed to fill the gap in literature using the job resource and demands model.

2. MATERIALS & METHOD

This study used a cross-sectional quantitative survey approach to gauge nurses' perception of their job demands/job resources, personality, job satisfaction and their turnover intention in the Tamale Teaching Hospital. Nurses in the target population who met the inclusion criteria for selection as research participants were recruited using multistage sampling technique. The data collection and analysis were done after adhering to ethical protocols of research. Microsoft excel was used to capture the capture participants' responses from the questionnaires. The excel data was subsequently exported to the statistical product and services solutions software (SPSS version 24) in a form ready for both descriptive and inferential sstatistics. The determination of the sample size of the population of nursing staff in the hospital was computed using the [27] formula for determining sample sizes shown below.

$$n = \frac{Z^2 * P * Q}{e^2}$$

Where;

n = the desired sample size

Z value =1.96 at 95% confidence interval

$p = estimated\ population = \frac{accessible\ population}{Target\ population} * 100\%$

$= \frac{1259}{1593} * 100 = 0.79$

Q = 1-estimated population = (1-0.79) = 0.21

e = margin of error set at 5%

$$n = \frac{1.96^2 * 0.79 * 0.21}{0.05^2}$$

$$n = 255$$

The sample size was calculated to be 255 and was upwardly adjusted by 10% to 280 to make provision for non-response rate and possible excess missing data. The formula for the distribution of the questionnaires is presented below.

$$\frac{\text{Number of nurses in sub} - \text{BMC}}{\text{Population}} * \text{total number of questionnaires}$$

Finally, in each sub-BMC, simple randomco sampling strategy was used to recruit participants who met the inclusion criteria and consented to participate in the study. Table 01 shows the distribution of the questionnaires to the sub-BMC's.

Table 01: Sample distribution

Number	Sub-BMC	Population	%	Quota	Sample
1	OBG	450	36	100	93
2	Pediatrics	225	18	50	50
3	Medicine	157	12	35	35
4	Surgery	360	29	80	73
5	A&E	67	5	15	13
Total		1259	100	280	264

Data was gathered using adopted scales from several validated scales. The questionnaire was structured according to the constructs of the study with appropriate instructions for each section. The demographic data collected includes gender, age, marital status, educational level, professional category, job tenure, job rank, department and unit. Nurses' personality was measured with the Ten Item Personality Inventory (TIPI) by [28]. It is a short version of the 44-item big five personality model. Nurses' satisfaction with their work was measured with seven (7) items adopted from [29] overall job satisfaction scale. The scale assesses job satisfaction by combining employee responses to single items that describe the degree of employee satisfaction with the work, co-workers, supervision, promotional opportunities, pay, progress, and the organization to assess overall job Satisfaction. The respondent's intention to voluntarily exit the employer's organization was measured using four (4) items adopted from [30] turnover intention scale. Upon the review and grant of ethical clearance by the Ethical Review Board of the Tamale Teaching Hospital, permission to carry out the study in the hospital was obtained from the Research Department of the hospital. A questionnaire distribution scheme was prepared indicating the number of questionnaires allocated to each sub-BMC.

Table 02: Socio-demographic data of respondents

Variable		Frequency	Percent %
Gender	Male	146	55.3%
	Female	118	44.7%
	Total	264	100.0%
Age	18 – 28	91	34.5%
	29 – 38	150	56.8%
	39 – 48	19	7.2%
	49 – 60	4	1.5%
	Total	264	100.0%
Marital Status	single	93	35.2%
	Married	164	62.1%
	Widow	4	1.5%
	Divorced	3	1.1%

	Total	264	100.0%
Educational level	Post-Secondary education	17	6.4%
	Diploma	130	49.2%
	Bachelor's Degree	105	39.8%
	Advanced degree	12	4.5%
	Total	264	100.0%
Professional category	General Nurse	190	71.9%
	Midwife	39	14.8%
	Specialist \Nurse	18	6.8%
	Auxiliary Nurse	17	6.4%
	Total	264	100.0%
Length of service	=1	62	23.5%
	≤ 5 >1	127	48.1%
	>5	75	28.4%
	Total	264	100.0%

Table 03: Socio-demographic data of respondents

Variable		Frequency	Percent %
Job Rank	EN	9	3.4%
	NO/MO	54	20.5%
	PEN	8	3.04%
	PNO	10	3.8%
	SM/SN	104	39.4%
	SNO	30	11.4%
	SSN/SSM	49	18.5%
	Total	264	100.0%
Department	A&E	29	11.0%
	Medicine	35	13.2%
	O&G	50	18.9%
	Pead	37	14.0%
	Surgery	113	42.8%
	Total	264	100.0%
Unit	Medical 1	1	0.4%
	Medical 2	11	4.2%
	Medical 3	15	5.7%
	Aseptic	14	5.3%
	ENT	6	2.3%
	General Surgery	3	1.1%
	Gyn Theatre	16	6.1%
	Main Theatre	22	8.3%
	Obst Theatre	5	1.9%
	Orange	8	3.0%
	P & T	14	5.3%
	Pead onc	7	2.7%
	Pead ward	30	11.4%
	Post natal	25	9.5%
	Prenatal	4	1.5%
	Psychiatry	8	3.0%

	Rec ward	1	0.4%
	Red	4	1.5%
	Surgical ward	12	4.5%
	T&O	22	8.3%
	Theatre rec	4	1.5%
	Treatment room	1	0.4%
	Triage	14	5.3%
	Urology theatre	15	4.9%
	Yellow	2	0.8%
	Total	264	100.0%

Table 04: Summary of description of study variables

Job demand items	MIN.	MAX	MEAN	SD
Nurses job demands	1	5	3.501	0.464
To what extent does your job require your working fast	1	5	3.77	1.036
To what extent does your job require your working hard	1	5	4.21	1.024
To what extent does your job require a great deal of work to be done	1	5	3.99	1.089
To what extent is there not enough time for you to do your job	1	5	2.97	1.017
To what extent is there excessive work in your job	1	5	3.60	1.070
To what extend do you feel there is not enough time for you to finish your work	1	5	3.05	1.076
To what extend do you have the freedom to decide how to organize your work.	1	5	3.42	1.151
To what extent is high skill level required	1	5	4.15	1.061
To what extent are you required to learn new things	1	5	4.07	1.111
To what extend is your work non-repetitious	1	5	3.13	1.138
To what extend does your job require creativity	1	5	3.96	.999
To what extent do you have the freedom to decide how to organize your work	1	5	3.24	1.082
To what extent do you have control over what happens on your job	1	5	2.91	1.101
To what extent does your job allow you to make a lot of your own decisions	1	5	2.99	1.118
To what extent are you assisted in making your own decisions	1	5	3.06	.998

Table 05: Summary scores of nurses' job demands

Variable	Range		Mean	SD
	Minimum	Maximum		
Job demands	1	5	3.501	0.464
Job resources	1	5	2.942	0.592
Job satisfaction	1	5	2.90	0.702
Turnover	1	5	4.01	1.102
Personality	1	5	3.08	0.483

Table 06: Summary of job resources scores

Job resources items	MIN	MAX	MEAN	SD
Nurses job resources	1	5	2.942	0.592
My supervisor takes time to learn about my career goals and aspirations	1	5	2.85	1.126
My supervisor cares about whether or not I achieve my goals	1	5	2.83	1.131
My supervisor keeps me informed about different career opportunities for me in the organization	1	5	2.71	1.206
My supervisor makes sure I get the credit when I accomplish something substantial on the job	1	5	2.83	1.229
My supervisor gives me helpful feedback about my performance	1	5	2.70	1.179
My supervisor gives me helpful advice about improving my performance when I need it	1	5	2.69	1.181
My supervisor supports my attempts to acquire additional training or education to further my career	1	5	2.76	1.221
My supervisor provides assignment that five me the opportunity to develop and strengthen new skills	1	5	2.73	1.187
My supervisor assigns me special projects that increase my visibility in the organization	1	5	2.84	1.186
Do you receive tasks that extraordinary and particularly difficult	1	5	2.80	1.134
Can you learn new things in your work	1	5	3.35	1.300
Can you use all your knowledge and skills in your work	1	5	3.24	1.299
if you look at your job as a whole how many decisions does it allow you to make	1	5	3.10	1.183
Can you determine how you do your work	1	5	3.31	1.183
Can you plan and arrange your work on your own	1	5	3.40	1.232
How much can you participate in decisions of your superior	1	5	2.98	1.230

Table 07: Summary of job satisfaction scores

Job satisfaction	MIN.	MAX	MEAN	SD
Nurses job satisfaction	1	5	2.90	0.702
All in all, how satisfied are you with the persons in your work group?	1	5	2.37	.918
All in all, how satisfied are you with your supervisor?	1	5	2.55	1.038
All in all, how satisfied are you with your job?	1	5	3.04	1.197
All in all, how satisfied are you with this organization, compared to Most?	1	5	3.42	1.255
Considering your skills/ effort you put into your work, how satisfied are you with your pay?	1	5	3.18	1.172
How satisfied do you feel with the progress you have made in this organization up to now?	1	5	2.86	1.048
How satisfied do you feel with your chance for getting ahead in this organization in the future?	1	5	2.87	1.058

Table 08: Correlation matrix of job demands, job satisfaction and turnover intention

Variables	1	2	3
Turnover intention	1		
Job demands	.37**	1	.
Job satisfaction	.363**	-.637**	1

Table 09: Relationship between job demands and turnover intention

Variable	Job demands	
	r	p-value (2 tail)
Turnover intention	.37	<.001

Table 10: Relationship between nurses' job demands and job satisfaction

Variable	Job demands	
	r	p-value (2 tail)
Job satisfaction	-.637	<.001

Table 11: Coefficients of job demands and turnover intention

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig
1	(Constant)	2.554	.518		4.932	.000
	Job demands	.2111	.347	.174	2.757	.002
a. Dependent Variable: Turnover						

Table 12: Model summary of job demands and turnover intention

Model	R	R Square	Adjusted R Square	Change Statistic	
				F	Sig
1	.37	.13	.13	12.23	.000
a. Predictors: (Constant), Job demands					

Table 13: Coefficients table of job demands and job satisfaction

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig
1	(Constant)	3.491	.301		10.241	.000
	Job satisfaction	.257	.043	.323	5.166	.000
a. Dependent Variable: Job satisfaction						

Table 14: Model summary of nurses' job demands and job satisfaction

Model	R	R Square	Adjusted R Square	Change Statistic	
				F	Sig

1	.637	.403	.328	13.46	.000
a. Predictors: (Constant), Job demands					

Table 15: Correlation matrix

Variables	1	2	3
Turnover intention	1		
Job resources	-.29**	1	.
Job satisfaction	.22**	.336**	1

Table 16: Correlation table

Variable	Job resources	
	r	p-value (2 tail)
Turnover intention	-.29	<.001

Table 17: Coefficients table

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig
1	(Constant)	2.200	.341		6,449	.000
	Job resources	.255	.114	.138	2.243	.026
a. Dependent Variable: Turnover						

Table 18: Model Summary

Model	R	R Square	Adjusted R Square	Change Statistic	
				F	Sig
1	.138	.019	.015	5.033	.026
a. Predictors: (Constant), Job demands					

Table 19: Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig
1	(Constant)	2.485	.219		11.373	.000
	Job satisfaction	.140	.073	.118	1.924	.005
a. Dependent Variable: Job satisfaction						

Table 20: Model Summary

Model	R	R Square	Adjusted R Square	Change Statistic	
				F	Sig
1	.118	0.14	.010	3.701	.049
a. Predictors: (Constant), Job resources					

Table 21: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df 2	Sig. F Change
1	.221	.138	.131	1.087	.049	2.175	6	254	.000
2	.267	.138	.127	1.085	.022	1.206	5	249	.016

Table 22: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.196	.039	.016	.696	.039	1.700	6	254	.000
2	.288	.083	.042	.687	.044	2.409	5	249	.037

Table 23: Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.536	0.306		8.297	0
	Job resources	0.141	0.073	0.119	1.924	0.056
	Openness	-0.065	0.062	-0.079	-1.045	0.297
	Conscientiousness	0.074	0.058	0.121	1.289	0.198
	Emotional stability	-0.05	0.025	-0.129	-2.044	0.042
	Agreeableness	0.014	0.054	0.022	0.254	0.8
	Neuroticism	0.011	0.058	0.015	0.183	0.855
2	(Constant)	-0.264	1.144		-0.231	0.818
	Job resources	1.116	0.382	0.944	2.921	0.004
	Openness	0.359	0.356	0.436	1.01	0.314

	Conscientiousness	-0.152	0.324	-0.248	-0.468	0.64
	Emotional stability	-0.286	0.198	-0.732	-1.445	0.15
	Agreeableness	0.284	0.304	0.444	0.932	0.352
	Neuroticism	0.524	0.288	0.76	1.82	0.07
	JR_C	0.079	0.108	0.459	0.731	0.466
	JR_A	-0.088	0.099	-0.49	-0.882	0.378
	JR_O	-0.149	0.117	-0.755	-1.274	0.204
	JR_N	-0.171	0.095	-0.9	-1.803	0.073
	JR_E	0.068	0.059	0.607	1.163	0.246

Table 24: Summary table of statistical tools used

No	Variables studied	Statistical test
1	Describe nurses' job demands, job resources, job satisfaction and turnover	Descriptive statistics
2	Influence of nurse's job demands on their turnover and job satisfaction?	Regression analysis
3	Does nurses' personality moderate between their job demands and turnover and also job demands and job satisfaction?	Hierarchical multiple regression analysis
4	Relationship between nurses' job resources, turnover and job satisfaction?	Correlation analysis

The age of participants in this study was categorized into ranges starting from 18-28 to 46-60. The modal age was within the 29-35 years bracket. Existing literature shows that the average age of nurses in Ghana is between 29-35 years [31]. The explanation for this relatively career start age is not far-fetched. Selection requirement for entry into nursing training college is between the ages of 18-35, given an indication that the minimum acceptable age for graduation and licensing as a nurse is at the age of 20 years [32]. The vast majority of nurses who are able to start their nursing career at this age are auxiliary nurses and will have to engage in further training to regularize their appointments as professional nurses. This has the tendency of pushing the career starting age of professional nurses in Ghana. The respondents for the study were male dominated. A total of 55.3% of the respondents were male while 44.7 % were female. An author [33] holds that nursing is suitable for both males and females. An author [34] observed that there is an increase in the number of males joining nursing training in Ghana with a ratio of 60% to female and 40% to male. The findings in this study challenges the long-held view that females are carved for jobs that sheds and reflect traditional feminine characteristics such as obedience, caring, warmth, nurturance and sensitivity. Males on the other hand are best suited for roles that reflect independence, leadership and instrumentality [35]. This points to the fact that Ghanaians perception about nursing is not gender stereotyped in favour of women [36]. The finding is however in accord with the suggestion that to crack the global nursing shortage, increasing the number of men in the nursing profession is a viable decision [37]. The vast majority of the respondents in the

study were in the entry grades of nursing and midwifery, the other 28.4% were at the terminating grades. This also reflects the organizational tenure of the nurses. Nurses who have stayed in the hospital for periods ranging between one and five (1-5) years were 71.6% and those with length of stay beyond five years were 28.4%. This finding gives an indication that the burden of high job demands falls on early career starters. The young nurses come into the service with a lot of youthful energy, but at a cost to experience and job knowledge. The liberalization of nursing training to include private sector participation may have aided the attraction of the youth to nursing. The government of Ghana's policy intervention to expand nursing training, following the occurrences (brain drain) in the late 90s to the early part of the 2000s brought about the establishment of new and upgrading of existing nursing training colleges. The high absorption rate of trained nurses into public health facilities upon completion (employment) and enhanced nurse trainees' allowance could also explain the significant increase in enrollment into nursing training [38]. The modern work environment for nurses is characterized by growing healthcare complexity, including high workloads, insufficient staffing levels, limited resources and evolving nurses' tasks. These have proven to promote work-related stress [39]. The mean score for nurse's job demands in this study is 3.501 (SD = 0.464), giving an indication that the level of job demands on nurses in the Tamale Teaching Hospital is moderately high. The Ministry of Health report on Northern region shows that despite the improvement in the nurse-to-patient ratio from 1170 in the year 2013 to 1255 in the year 2014, there has been significant rise in hospital bed utilization ratios (both percentage occupancy and average length of stay), in-patient admissions, supervised deliveries and antenatal care [40]. Meanwhile, high job demands undoubtedly affect nurses' productivity, efficiency and withdrawal behaviors. An author [41] hints that when the level of workload is too high or too low, job performance declines and more mistakes are made. This study found a positive relationship between nurses' job demands and their turnover intention [r (262) = .37, p<.001)], suggesting that higher job demands could result in higher intentions to leave the hospital or the nursing profession. Further linear regression analysis found good model fit to explain the causal relationship between nurses' job demands and their turnover intention. $[R^2 = .13, F(1,263) = 12.23, P<.000]$. This meant that nurses' job demands significantly predicted their turnover intention. Nursing is generally perceived as a demanding profession. Amongst health care workers, nurses have been reported to be the most susceptible to demanding work [42]. The mean score for the level of job satisfaction by nurses in the study is 2.90 (SD = 0.702). This shown that nurse's satisfaction with their job in the hospital is low. An important factor that affects staff retention, motivation, and performance is the job satisfaction of nurses [43]. Poor working conditions, outmoded and inadequate equipment, and poor pay are but a few of the challenges confronting nurses in Ghana [44]. The correlation analysis implored in this study found an inverse association with nurses' job demands and their job satisfaction [(r (262) = -.637, p<.001)]. The causal link between nurse's job demands and their job satisfaction was also found to be significant $[R^2 = .403, F(1,263) = 13.46, P<.000]$. The causal relationship is such that high nurses job demands results in a low job satisfaction and vice versa. This finding is consistent with earlier studies that found negative relationship between nurse's job demands and their job satisfaction [45]. Researchers have identified that behavioral intentions are the most significant predictors of actual behavior [46]. In view of this assertion, turnover intention was used as a proxy to measure turnover. The overall average score for turnover intention by nurses in the study was 4.01(SD=1.102). This means the turnover intention of nurses in the hospital is high. The findings in this study are consistent with other studies on nurse's turnover in Ghana [47]. It is globally acknowledged that, the effectiveness of nurses and the presence of a professional practice environment (PPE) are closely linked to client care satisfaction, the quality of care rendered and positive staff outcomes [48]. Zeroing in on low- and middle-income countries (LMICs) like Ghana, where turnover is predicted to be 25.9%, limited job resource like training and capacity development are cited as reasons for turnover intention [49]. Good practice environment and social support have been found to enhance retention [50]. Organizational

commitment in other studies was invoked to explain the causal link between job resources and turnover intention [51]. The researcher explained that the resources provided by an organization may help develop employees in the job. When the resources meet the needs of the employees, commitment is built then they develop a stronger bond with the organization and will less likely leave. Examining the connection between personality traits and job satisfaction is becoming more and more popular [52]. Factors related to job satisfaction for health workers are often misinterpreted [53]. This study found an inverse relationship between nurses' job resources and their turnover intention, suggesting that higher levels of job resources will result in lower turnover intention. Though the effect of nurses' personality on the relationship between job resources and turnover was negative, it was found significant to infer moderation. Nurses with the traits of low neuroticism are characteristically confident and have coping abilities to stress. It therefore means that when nurses with the traits of low neuroticism encounter quality supervision and co-worker support at work, they are more likely to develop positive attachment to their job. This may have the dual effect of increasing their job satisfaction as well as enhancing their retention in the hospital. On the other hand, nurses who are high on neuroticism are timid, nervous and anxious. These nurses have been shown in existing literature to have flashes of negative emotions and attitudes. Supervisors and co-workers will interpret nurses with this characteristic as toxic and will detest working with them because of their negativity and anger [54]. In the trait of high neuroticism will weaken the negative relationship job resources and most would be seen.

4. CONCLUSIONS

This study examined the influence of job demands and job resources on job satisfaction and turnover intention among nurses in TTH. The study as well explored the moderating role of Nurses personality between the predictor and outcome variables. The JD-R model (2001) served as the guiding framework for this study. The review of literature included books, reviews articles and empirical works on nurse's job demands, job resources, personality, job satisfaction and turnover intention. The Ethical Review Board of the Tamale Teaching Hospital and the Research and Development Department also of the Tamale Teaching Hospital gave ethical clearance and Certificate of Authorization respectively for this study (see appendix C and D). The study utilized the quantitative research design and collected data using cross sectional survey. Two hundred and sixty-four (264) nurses were selected as respondents employing multi-stage sampling technique. The responses and the data collection was undertaken with validated questionnaires' adopted from prominent researchers. The questionnaire was structured according to the constructs of the study with appropriate instructions for each section. It comprised of six sections: Demographic data (A), Job demands (B), Job resources (C), Personality (D), Job satisfaction (E) and Turnover intention (F). The whole data collection, cleaning and analysis lasted or five weeks from the 16th May to 7th July 2022. The data collected was coded and transformed to produce descriptive and inferential statistics using the SPSS software (Version 24). Descriptive statistics were used to summarize the data in the form of frequencies, percentages, mean scores and standard deviations. The decision rule for the inferential statistics was set at 95% confidence interval hence p-value of <0.05 was considered statistically significant. Pearson product moment correlation was used to assess the relations between the constructs of interest for the study. Linear and hierarchical multiple regression were also used to determine the causal and moderation effects respectively. The findings from the study showed that both nurses job demands (M = 3.501, SD = 0.464) and turnover intention (M=4.01, SD =1.102) was high, whiles nurses job resources (M=2.942, SD = .592) and their job satisfaction (M=2.90, SD = 0.702) was low. The personality inventory scores indicated that nurses in the study achieved higher than mid-scale scores in conscientiousness (M=3.815, SD=1.145), openness to experience (M=3.804, SD=.849) and agreeableness (M=3.451, SD=1.095).The mean score of nurses in neuroticism dimension of the big five personality model was 3.379 (SD=1.102) and it was higher than

the mean score of extraversion sub-dimension (M=3.171, SD=1.786). It was hypothesized that there will be a significant positive relationship between the job demands of nurses and their turnover intention as well as an inverse relationship between nurses' job demands and their job satisfaction. A moderate but significant positive relationship was found between nurses' job demands and their turnover intention. Nurses' job demands accounted for 13% of the variation in their turnover intention. Also, a significant and strong negative correlation was found between nurses' job demands and job satisfaction. Nurses' job demands explained 40.3% of the variation in job satisfaction. Pearson 's correlation found a weak but significant negative relationship between nurse's job resources and their turnover intention. Nurses' job resources explained a significant portion (9.1%) of their turnover intention. Again, a moderate but significant correlation was found between nurses' job resources and their job satisfaction. The job resources of nurses accounted for an insignificant variation (1.4%) in nurses' job satisfaction. Furthermore, nurses' personality did not moderate between their job demands and turnover intention. Whiles significant moderation was established between nurses' job demands and their job satisfaction. The findings of the study indicated that whereas nurses' job demands causes their turnover intention and lessens their job satisfaction, increase nurses' job resources lessens their turnover intention and enhances their job satisfaction. The moderating role of personality between JDR and turnover as well JDR and job satisfaction depends on the specific dimension of personality. The findings imply that in order to enhance the job satisfaction and retention of nursing staffs, policy and management interventions are needed from stakeholders.

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