Job Satisfaction among Nigerian Dental Technologists And its Effect on their Relationship with Dental Surgeons, A Cross-sectional Study

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Key words: Dental technologist, dentist, extrinsic, intrinsic, job satisfaction, relationship.

ABSTRACT Objective

Job satisfaction may influence interprofessional relationships among healthcare workers. This study assessed the job satisfaction of dental technologists and its effect on their relationship with dentists.

Methods:

An online questionnaire survey of Nigerian dental technologists was conducted using an adapted Minnesota Satisfaction Questionnaire. Data were analyzed using IBM SPSS Statistics (version 23). Chi-square tests were used to compare means, and logistic regression tested associations. Statistical significance was set at $p \le 0.05$.

Results:

A total of 131 technologists participated (male: female ratio = 2.5:1). Seventy-seven (58.8%) were married, 68 (51.9%) had worked for 5 years or less, and 64 (48.9%) worked in teaching hospitals. Sixty-three (48.1%) had moderate levels of job satisfaction, while 77 (60.3%) were satisfied with their relationship with dentists. Intrinsic satisfaction was associated with higher education (χ^2 = 11.48, p = 0.02) and employment in tertiary centers (χ^2 = 6.84, p = 0.03); extrinsic satisfaction was associated with being married ($\chi^2 = 10.44$, p = 0.01), and overall satisfaction was higher among females ($\chi^2 = 8.41$, p = 0.02). In-service development increased the odds of extrinsic satisfaction by 3.1 (1.2–8.0); p = 0.02. Respect for dentists' decisions was associated with interprofessional relationships ($\chi^2 = 52.97$, p = 0.001), and overall satisfaction strongly correlated with the relationship with the dentist ($\chi^2 = 42.79$, p < 0.001).

Conclusion

Job satisfaction was related to good interprofessional relationships. Higher satisfaction levels were associated with being female and working in teaching hospitals. Good interprofessional relationships also improved satisfaction.

INTRODUCTION

Interprofessional relationships may enhance workplace harmony and productivity. Scientific inquiry into such complex and abstract phenomena among individuals from different professional backgrounds typically requires an objective factor for measurement. ^{1,2} One such factor is job satisfaction. ^{3–5} Job satisfaction has been described as an affective reaction to the realities of an individual's work experience. ^{6–8} It is recognized not only as a measure of employee productivity but also as an indicator of the quality of inter-employee interactions. ^{9,10} Several factors influence job satisfaction, including intrinsic factors related to the nature of the job and extrinsic factors that provide emotional or material benefits. ^{11,12}

Job satisfaction is commonly assessed using instruments that measure intrinsic and extrinsic satisfaction. ^{13–15} The Minnesota Satisfaction Questionnaire Short Form (MSQ) is one such validated tool. ¹⁶ Although several studies have evaluated job satisfaction among Nigerian healthcare workers, ^{17–19} few have focused on oral healthcare workers. ²⁰ Even fewer have specifically examined dental technologists and their relationships with dentists in Nigeria.

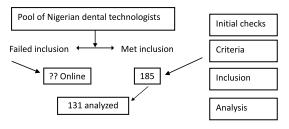
This study assessed the level of job satisfaction among dental technologists in public-sector health facilities and related this to their relationship with dentists. We believe that improving this relationship will enhance the quality of oral healthcare delivery in these facilities.

METHODS

Ethics: Ethical approval (NHREC/28/01/2020/AKTH/EC/3066) was obtained from the Ethics Review Board of a teaching hospital in Northwestern Nigeria. The study complied with the ethical review board's requirements. It was conducted and reported in accordance with the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines and in adherence to the Declaration of Helsinki.

Study Design: This descriptive, cross-sectional, questionnaire-based study was conducted online and targeted dental technologists across Nigeria. It was coordinated from a center in Northwestern Nigeria.

Participants: The study population consisted of fully qualified, post-internship dental technologists working in Federal and State Government-owned tertiary healthcare facilities.



Response rate: 71%

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Study Instrument:

A modified version of the Minnesota Satisfaction Questionnaire Short Form (MSQ) was used to ensure contextual relevance and content validity. The adaptation focused on workplace interactions affecting satisfaction. The online questionnaire was administered via Google Forms from January to June 2021, only to participants who provided informed consent. The study assessed intrinsic, extrinsic, and overall job satisfaction, as well as the relationship between job satisfaction and specific sociodemographic characteristics. Questions 5 and 6 of the MSQ were modified to assess relationships with dentists:

Q5: "I like the way the dentist relates with me."

Q6: "I respect the decisions the dentist makes."

These two items were analyzed independently to evaluate interprofessional relationships.

Scoring Criteria:

The questionnaire comprised 18 items (excluding two from the original MSQ). Extrinsic satisfaction was assessed using questions 2 and 13–15, while intrinsic satisfaction was assessed using the remaining questions. Responses were scored on a 5-point Likert scale (1 = very dissatisfied to 5 = very satisfied).

Scores were categorized following Weiss et al. (1967). ²¹ Scores at or below the 25th percentile indicated low satisfaction, scores between the 26th and 74th percentiles indicated moderate satisfaction, and scores at or above the

75th percentile indicated high satisfaction.

- Intrinsic satisfaction: range 12–60 (25th percentile = 18; 75th percentile = 23)
- Extrinsic satisfaction: range 6-30 (25th=47; 75th=55)
- Overall satisfaction: range 18-90 (25th=66; 75th=77)

Data Analysis:

Responses were collected via Google Forms and exported to Microsoft Excel. Data were analyzed using IBM SPSS Statistics for Windows, Version 23.0 (IBM Corp., Armonk, NY). Frequencies and proportions were calculated. Chi-square tests, Fisher's exact tests, and logistic regression were used to test associations and predict odds ratios (ORs). Statistical significance was set at $p \le 0.05$.

RESULTS

A total of 131 dental technologists responded, yielding an estimated response rate of 71%. Reminders were sent to minimize nonresponse bias. Of these, 93 (71.0%) were male and 38 (29.0%) female (M:F = 2.5:1). Seventy-seven (58.8%) were married. Most participants (88 or 67.2%) held the Higher National Diploma (HND) as their highest qualification, while 11 (8.4%) had postgraduate degrees, including one PhD [Table 1].

Sixty-four (48.9%) participants worked in teaching hospitals, and 68 (51.9%) had five or fewer years of work experience [Table 1].

Table 1. Demographic and professional characteristics of dental technologists working in public health facilities

Variables	Frequency (n)	Percentage (%)	
Gender			
Female	38	29	
Male	93	71	
Marital status			
Single	54	41.2	
Married	77	58.8	
Highest qualification			
ND	2	1.5	
HND	88	67.2	
Bachelors	29	22.1	
PGD	1	0.8	
MSc	10	7.6	
PhD	1	0.8	
In service formal training			
No	46	35.1	
Yes	85	64.9	
Workplace			
FMC	23	17.6	
Federal specialist	12	9.2	
State specialist	32	24.4	
Teaching hospital	64	48.9	
Years post qualification			
0 to 5	68	51.9	
6 to 10	21	16	
> 10	42	32.1	
Years on present job			
0 to 5	68	51.9	
6 to 10	24	18.3	
> 10	39	29.8	

ND: National diploma; HND: Higher national diploma; PGD: Post graduate diploma; MSc: Master of Science; PhD: Doctor of Philosophy; FMC: Federal Medical Center

The average scores for intrinsic and overall job satisfaction were at a moderate level (50.6 ± 4.9 and 71.4 ± 7.8 , respectively), whereas extrinsic job satisfaction

scored significantly lower (20.7 ± 4.0). Despite this, most participants reported moderate satisfaction levels across all measured aspects, as detailed in Table 2.

Table 2. Average scores in aspects of job satisfaction and spread of participants at different levels of performance

Satisfaction			Levels of	satisfaction, n	ı (% <u>)</u>	
scores	Range	Mean (SD)	MedianLow	Mod	erate Hig	h
Intrinsic	35 to 60	50.62 (4.9)	50	34 (26)	59 (45)	38 (29)
Extrinsic	9 to 30	20.7 (4.0)	21	40 (30.5)	50 (38.2)	41 (31.3)
Overall	51 to 90	71.4 (7.8)	71	35 (26.7)	63 (48.1)	33 (25.2)

Bachelor's degree holders were proportionally more likely to report high intrinsic job satisfaction, with 12 individuals (41.4%) in this category ($\chi^2 = 11.48$, p = 0.02). Similarly, federal government employees had a higher proportion of individuals with high intrinsic satisfaction (34 individuals, 34.3%; $\chi^2 = 6.86$, p = 0.03).

Unmarried participants showed the highest proportion of

high extrinsic satisfaction (25 individuals, 46.3%; $\chi^2 = 10.44$, p = 0.01), as did those with ≤ 5 years of work experience (31 individuals, 45.6%; $\chi^2 = 14.61$, p = 0.01). In addition, female participants had a greater proportion of high overall job satisfaction (16 individuals, 42.1%; $\chi^2 = 8.41$, p = 0.02). [Table 3]

Table 3. Relationship between job satisfaction and demographic and professional characteristics of Nigerian dental technologists

	Job satisfaction, n (%)									
		Intrinsic	Extrinsic			Overall				
Characteristics	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	
Gender										
Female	8 (21.1)	16 (42.1)	14 (36.8)	10(26.3)	16 (42.1)	12 (31.6)	9 (23.7)	13 (34.2)	16 (42.1)	
Male	26 (28.0)	43 (46.2)	24 (25.8)	30 (32.3)	34 (36.6)	29 (31.2)	26 (28)	50 (53.8)	17 (18.3)	
χ2; p-value		1.73; 0.42			0.53; 0.77			8.41; 0.02*		
Marital status										
Single	16 (29.6)	25 (46.3)	13 (24.1)	15 (27.8)	14 (25.9)	25 (46.3)	15 (27.8)	25 (46.3)	14 (25.9)	
Married	18 (23.4)	34 (44.2)	25 (32.5)	25 (32.5)	36 (46.8)	16 (20.8)	20 (26.0)	38 (49.4)	19 (24.7)	
χ2; p-value		1.28; 0.53			10.44; 0.01*			0.12; 0.94		
Highest qualification										
ND/HND	19 (21.1)	49 (54.4)	22 (24.4)	24 (26.7)	34 (37.8)	32 (35.6)	21 (23.3)	46 (51.1)	23 (25.6)	
Bachelor	11 (37.9)	6 (20.7)	12 (41.4)	10 (34.5)	11 (37.9)	8 (27.6)	9 (31.0)	12 (41.4)	8 (27.6)	
Postgraduate	4 (33.3)	4 (33.3)	4 (33.3)	6 (50)	5 (41.7)	1 (8.3)	5 (41.7)	5 (41.7)	2 (16.7)	
Fisher's test; p-value		11.48; 0.02	*	4.88; 0.30		2.58; 0.65				
Type of facility										
Secondary	8 (25)	20 (62.5)	4 (12.5)	13 (40.6)	11 (34.4)	8 (25)	12 (37.5)	14 (43.8)	6 (18.8)	
Tertiary	26 (26.3)	39 (39.4)	34 (34.3)	27 (27.3)	39 (39.4)	33 (33.3)	23 (23.2)	49 (49.5)	27 (27.3)	
χ2; p-value		6.86; 0.03*	:		2.11; 0.35		2.71; 0.26			
In service formal training										
No	13 (28.3)	21 (45.7)	12 (26.1)	20 (43.5)	15 (32.6)	11 (23.9)	15 (32.6)	19 (41.3)	12 (26.1)	
Yes	21 (24.7)	38 (44.7)	26 (30.6)	20 (23.5)	35 (41.2)	30 (35.3)	20 (23.5)	44 (51.8)	21 (24.7)	
χ2; p-value		0.36; 0.84			5.70; 0.06			1.62; 0.44		
Years on present job										
0 to 5	17 (25.0)	34 (50.0)	17 (25.0)	17 (25.0)	20 (29.4)	31 (45.6)	16 (23.5)	34 (50)	18 (26.5)	
6 to 10	7 (29.2)	8 (33.3)	9 (37.5)	7 (29.2)	13 (54.2)	4 (16.7)	6 (25.0)	12 (50.0)	6 (25.0)	
> 10	10 (25.6)	17 (43.6)	12 (30.8)	16 (41.0)	17 (43.6)	6 (15.4)	13 (33.3)	17 (43.6)	9 (23.1)	
χ2; p-value		2.26; 0.69			14.61; 0.01*			1.27; 0.87		

Participants working in federal establishments had 4.4 times higher odds of reporting high intrinsic job satisfaction (95% CI: 1.3–14.7, p = 0.02), as did those who received formal in-service training (OR: 3.1, 95% CI: 1.2–8.0, p = 0.02). Similarly, female participants were 3.8

times more likely to report high overall job satisfaction (95% CI: 1.5-9.3, p = 0.004). Conversely, increasing work experience was associated with a >70% reduction in the odds of high extrinsic job satisfaction [Table 4].

Table 4: Logistic regression of high-level job satisfaction with sociodemographic of Nigerian dental technologists

			Job satisf	action		
Characteristics In	ntrinsic a OR (95% CI) p		Extrinsic Ov a OR (95% CI) p a OR (95% CI)		Overall 6 CI) p	
Gender						
Male (reference)	1.0		1	.0	1.	0
Female	1.7 (0.67-4.1) 0	.27	1.2 (0.48-	3.2) 0.8	1 3.8 (1.5-9.3	0.004*
Marital status						
Single (reference)	1.0		1	.0	1.	0
Married	1.4 (0.49-	-4.2)	0.50 0	.64 (0.23-	l.8) 0.40 0.	91 (0.30-2.7) 0.86
Highest qualification						
ND/HND (ref)	1.0		1	.0	1.	0
Bachelor	2.3 (0.89-6.2) 0	.09	0.47 (0.17	7-1.3) 0.1	.5 0.80 (0.29	-2.2) 0.67
Postgraduate	0.94 (0.22-3.9)	0.93	0.33 (0.04	I-3.1) 0.3	3 0.45 (0.08	-2.6) 0.37
Type of facility						
Secondary (ref)	1.0		1	.0	1.	0
Tertiary	4.4 (1.3-14.7) 0	.02*	1.5 (0.56-	4.0) 0.4	2 1.9 (0.67-	5.5) 0.22
In service formal trai	ining		•	•	•	,
No (ref)	1.0		1	.0	1.	0
Yes	1.02 (0.42-2.5)	0.95	3.1 (1.2-8	.0) 0.0	2* 1.2 (0.47-2	2.9) 0.75
Years on present job	, , , ,		•	•	•	,
0 to 5 (ref)	1.0		1	.0	1.	0
6 to 10	1.8 (0.53-5.9) 0	.36	0.20 (0.0	5-0.8) 0.02	* 1.1 (0.30-4	1.0) 0.89
> 10	, ,	.62	•	7-0.99) 0.0	•	•

aOR: Adjusted odds ratio; ND: National diploma; HND: Higher national diploma

*Significant at p< 0.05

Approximately half (49.6%) of participants reported respecting dentists' decisions, while 22.9% remained undecided and 27.5% expressed dissatisfaction. Regarding dentist-patient relationships, 60.3% of respondents indicated satisfaction, with equal proportions

expressing uncertainty or dissatisfaction (19.8% each). Notably, federal government employees showed significantly higher satisfaction rates (65.7%; χ^2 =11.52, p=0.02), as did participants with \leq 5 years of work experience (69.1%; χ^2 =14.38, p=0.01) [Table 5].

Table 5: Relationship between demographic and professional characteristics and attitude toward the dentist

Characteristics						
	Wor Dissatisfied	k relationship Undecided	Satisfied	Competency in Dissatisfied		naking d Satisfied
Gender						
Female	10 (26.3)	7 (18.4)	21 (55.3)	12 (31.6)	7 (18.4)	19 (50.0)
Male	16 (17.2)	19 (20.4)	58 (62.4)	24 (25.8)	23 (24.7)	46 (49.5)
χ2; p-value		1.41; 0.49			0.79; 0.67	
Marital status						
Single	10 (18.5)	9 (16.7)	35 (64.8)	9 (16.7)	14 (25.9)	31 (57.4)
Married	16 (20.	.8) 17 (22.	1) 44 (57.	1) 27 (35.	1) 16	6 (20.8) 34 (44.2)
χ2; p-value		0.86; 0.68			5.4; 0.07	
Highest						
qualification						
ND/HND	17 (18.9)	17 (18.9)		22 (24.4)	20 (22.2)	48 (53.3)
Bachelor	6 (20.7)	5 (17.2)		9 (31)	7 (24.1)	• •
Postgraduate		4 (33.3)		5 (41.7)	3 (25)	
Fisher's exact to		2.53; 0	.65		2.	64; 0.63
Type of facility						
Secondary	13 (40.6)	5 (15.6)	14 (43.8)	13 (40.6)		13 (40.6)
Tertiary	13 (13.1)	21 ()21.2	65 (65.7)	23 (23.2)		52 (52.5)
χ2; p-value		11.52; 0.003*			3.67; 0.16	5
In service						
formal training						
No	14 (30.4)	7 (15.2)		14 (30.4)		22 (47.8)
Yes	12 (14.1)	19 (22.4)	54 (63.5)	22 (25.9)	20 (23.5)	` '
χ2; p-value		5.19; 0.08			0.31; 0.86	
Years on						
present job						
0 to 5	15 (22.1)	6 (8.8)	47 (69.1)	16 (23.5)		• •
6 to 10	2 (8.3)	10 (41.7)	12 (50.0)	4 (16.7) 7 (29.2		•
> 10	9 (23.1)	10 (25.6)	20 (51.3)	16 (41.0)	10 (25.6)	
χ2; p-value		14.38; 0.01*			7.98; 0.09	

All dimensions of job satisfaction demonstrated significant positive associations with interprofessional relationships between participants and dentists (intrinsic: $\chi^2=26.38$, p<0.001; extrinsic: $\chi^2=32.69$, p<0.001; overall: $\chi^2=43.79$, p<0.001; Table 6). Similarly, both extrinsic

(χ^2 =24.20, p<0.001) and overall satisfaction (χ^2 =20.71, p<0.001) showed significant positive correlations with respect for dentists' decisions. Notably, no significant association was found between intrinsic satisfaction and respect for dental decisions (χ^2 =7.88, p=0.10).

Table 6: Relationship between dental technologists' job satisfaction and attitude toward the dentist

	Attitude towards the dentist, n (%)							
Job	Wo	rk relationship		Respect for decisions				
satisfaction	Dissatisfied	Undecided	Satisfied	Dissatisfied	Undecided Satisfied			
Intrinsic								
Low	14 (41.2)	10 (29.4)	10 (29.4)	13 (38.2)	11 (32.4) 10 (29.4)			
Moderate	10 (16.9)	13 (22.0)	36 (61.0)	15 (25.4)	12 (20.3) 32 (54.2)			
High	2 (5.3)	3 (7.9)	33 (86.8)	8 (21.1) 7 (18	.4) 23 (60.5)			
χ2; p-value	26	5.38; < 0.001*		7.88;	7.88; 0.10			
Extrinsic								
Low	17 (42.8)	8 (20.0)	15 (37.5)	19 (47.5)	12 (30.0) 9 (22.5)			
Moderate	8 (16.0)	15 (30.0)	27 (54.0)	13 (26.0)	12 (24.0) 25 (50)			
High	1 (2.4) 3 (7.3) 37 (90.2)	4 (9.8) 6 (14	4.6) 31 (75.6)				
χ2; p-value	32	2.69; < 0.001*		24.20; < 0.001*				
Overall								
Low	18 (51.4)	8 (22.9)	9 (25.7)	16 (45.7)	13 (37.1) 6 (17.1)			
Moderate	6 (9.5)	17 (27.0)	40 (63.5)	14 (22.2)	12 (19.0) 37(58.7)			
High	2 (6.1)	1 (3.0)	30 (90.9)	6 (18.2)	5 (15.2) 22 (66.7)			
χ2; p-value	42.79; < 0.001* 20.71; < 0.001*				1*			

Statistically significant at P < 0.05

DISCUSSION

Findings: Dental technologists play a crucial role in translating dentists' designs into functional prostheses and appliances. ^{22–25} Although they interact with various dental specialists, their closest professional relationships are with restorative dentists and orthodontists. These interprofessional dynamics significantly impact treatment quality and efficiency, ²⁶ but the technologist—dentist relationship is often complex, sometimes due to professional territorialism. ^{27–31}

Job satisfaction studies among healthcare workers began in the United States in the 1970s²⁰,²¹ and have become valuable tools for workforce planning in Nigeria.³² Although few Nigerian studies have focused specifically on dental technologists, our findings align with those from Romania.²⁷

Key observations from this study include:

- Male predominance, consistent with Arigbede et al. 33
- Low bachelor's degree attainment, reflecting the recent introduction of degree programmes in dental technology³⁴
- Younger workforce composition, which may indicate a growing appeal of the profession or reluctance among older professionals to pursue further studies
- Higher intrinsic satisfaction levels, contrasting with

- the findings of Ayamolowo et al.³⁵ but aligning with those of Bello et al.³⁶
- Higher intrinsic satisfaction was significantly associated with:
- Bachelor's degree attainment, supporting findings from Ethiopia³⁷
- Employment in federal establishments, likely due to better infrastructure and working conditions³⁸
- Formal in-service training

In terms of extrinsic satisfaction, married participants reported higher levels, possibly influenced by cultural expectations, ³⁹ as also observed by Bello et al. ⁴⁰ Female respondents showed greater overall job satisfaction—an instance of the "gender job-satisfaction paradox" ⁴²⁻⁴³ which may be explained by lower job expectations among women.

Implications: Positive associations were observed between job satisfaction and:

- University-level education
- Marital status
- Formal in-service training
- Female gender
- High-quality interprofessional relationships
- These factors can be harnessed to improve job satisfaction and productivity among dental technologists.

Trade-offs (Limitations)

- 1. Potential selection bias due to the online survey format, which may have excluded older professionals
- 2. Possibility of self-report bias in job satisfaction ratings
- 3. Absence of qualitative data to complement quantitative insights
- 4. Although the MSQ was slightly modified, core items were preserved for comparability

Take-home (Conclusion):

Overall, most dental technologists reported moderate job satisfaction. Higher satisfaction levels were significantly associated with being female, tertiary hospital employment, university education and shorter work experience. While respect for dentists' decisions was moderate, technologists in teaching hospitals reported satisfactory professional relationships.

Expectations for Future Research:

Further studies should explore motivations and experiences of older technologists and investigate generational differences in professional satisfaction

Recommendations

- 1. To enhance job satisfaction and interprofessional collaboration:
- 2. Expand access to formal in-service training
- 3. Strengthen factors that promote intrinsic satisfaction
- 4. Address generational participation gaps through targeted engagement strategies

Funding:

Nil.

Conflicts of interest:

None declared.

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APPENDIX A:

Adapted MSQ* Short Form Questionnaire

Please tick only one option per question. All questions must be answered. You may not proceed without first ticking yes to the question seeking your consent.

I consent to participate

- o Yes
- o No
- 1. I get a chance to work without supervision on the job
 - o Strongly agree
 - o Agree
 - Neither agree nor disagree
 - Disagree
 - Strongly disagree
- 2. My job keeps me busy all the time
 - Strongly agree
 - o Agree
 - Neither agree nor disagree
 - Disagree

Strongly disagree

3. My job allows me to do different procedures all the time

- Strongly agree
- o Agree
- Neither agree nor disagree
- Disagree
- o Strongly disagree

4. I feel important in the hospital environment

- Strongly agree
- o Agree
- o Neither agree nor disagree
- Disagree
- Strongly disagree

5. I like the way the dentist relates with me

- Strongly agree
- o Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

6. I respect the decisions made by the dentist

- Strongly agree
- o Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

7. My job does not make me do things that go against my conscience

- o Strongly agree
- o Agree
- Neither agree nor disagree
- o Disagree
- Strongly disagree

8. I have job security

- Strongly agree
- Agree
- o Neither agree nor disagree
- o Disagree
- o Strongly disagree

9. My job allows me to add meaning to other people's lives

- Strongly agree
- o Agree
- o Neither agree nor disagree
- o Disagree
- Strongly disagree

10. My job gives me the opportunity to give instructions to colleagues and other coworkers

- o Strongly agree
- o Agree
- o Neither agree nor disagree
- o Disagree

Strongly disagree

11. My job allows me to showcase my talents

- o Strongly agree
- o Agree
- o Neither agree nor disagree
- Disagree
- o Strongly disagree

12. I am satisfied with the hospital policy regarding my job

- Strongly agree
- o Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

13. My salary matches the work I do

- Strongly agree
- o Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

14. I am happy with my opportunities for career progression

- o Strongly agree
- o Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

15. My job allows the freedom to use my own judgement

- o Strongly agree
- o Agree
- Neither agree nor disagree
- Disagree
- o Strongly disagree

16. I get the chance to try out my own ways of doing my job in the laboratory

- o Strongly agree
- o Agree
- o Neither agree nor disagree
- o Disagree
- Strongly disagree

17. I like the conditions under which I work

- Strongly agree
- o Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

18. I get along well with my colleagues

- Strongly agree
- o Agree
- o Neither agree nor disagree
- Disagree
- Strongly disagree

19. I like the amount of praise I get for doing a good job

- Strongly agree
- o Agree
- o Neither agree nor disagree
- o Disagree
- o Strongly disagree

20. I feel accomplished with my job

- o Strongly agree
- o Agree
- o Neither agree nor disagree
- o Disagree
- Strongly disagree

21. Gender

- o Male
- o Female

22. Marital Status

- o Single
- o Married
- o Divorced
- o Separated
- o Widowed

23. Age at last birthday in years

0 -----

24. Highest academic qualification obtained

- o ND
- o HND
- \circ BSc
- $\circ \quad MSc$
- PhDOthers
- 0 0 111111

25. Years on present job

- \circ 0 5 years
- \circ 6 10 years
- o Greater than 10 years

26. Years of post-qualification experience

- 0 5 years
- \circ 6 10 years
- o Greater than 10 years