ASSESSMENT OF INTENDING CAREER FULFILLMENT IN RADIOGRAPHY AMONG RADIOGRAPHERS AT THE UNIVERSITY OF BENIN TEACHING HOSPITAL

BY

OKUNKPOLOR ROSELLA OFURE

BMS2005206

A PROJECT WORK

IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR

THE AWARD OF B.SC.(RAD) DEGREE

SUBMITTED TO

THE DEPARTMENT OF RADIOGRAPHY

SCHOOL OF BASIC MEDICAL SCIENCES

UNIVERSITY OF BENIN, BENIN CITY

SUPERVISOR: MRS OLASUYI.

CERTIFICATION

We certify that this project work “assessment of career fulfillment among radiographers in university of benin teaching hospital” was carried out by Okunkpolor, Ofure Rosella, with matriculation number: BMS2005206 of the Department of Radiography and that the work was done under my supervision.

.....	.....
Mrs Olasuyi.	MRS IGBINEDION F. O.
Project supervisor	Head of Department

TABLE OF CONTENTS

Title page

CHAPTER ONE – INTRODUCTION

1.1 Background of the Study……1

1.2 Statement of Problem……3

1.3 Research Questions……3

1.4 Hypotheses……3

1.5 Aim and Objectives of the Study……3

1.6 Significance of the Study……4

1.7 Scope of the Study……..4

1.8 Operational definition of terms……5

CHAPTER TWO – LITERATURE REVIEW

2.1 Conceptual Review……6

2.2 Empirical Review……11

CHAPTER THREE – METHODOLOGY

3.1 Research Setting……14

3.2 Study Design ……14

3.3 Target Population……14

3.4 Sampling techniques/ Sample size……15

3.5 Instrument of Data Collection……15

3.6 Validity of the Instrument……15

3.7 Reliability of the Instrument……15

3.8 Method of Data Collection……15

3.9 Method of Data Analysis……16

3.10 Ethical Consideration……16

REFERENCES……..22

ABSTRACT

The research evaluated the intending career fulfillment in the radiographers of the University of Benin Teaching Hospital (UBTH). In healthcare professions, career fulfillment is a key area in the determination of productivity, job satisfaction, and employee retention. The study assumed a descriptive cross-sectional research design and a sample population of 30 radiographers in UBTH. The methods used to gather data were structured self-administered questionnaires that aimed at studying career goals, levels of fulfillment and issues facing radiographers. To analyze the relationship between years of practice and career fulfillment, descriptive statistics and the use of Spearman Rank Correlation were used to answer the analysis. Results showed that despite the fact that most of the radiographers had clear career goals, a considerable amount of radiographers had no idea of their present career fulfillment. Those who felt themselves on track towards their career goals amounted to 33.3%, and those who were unsure about it added to 46.7%. This research revealed that the years of practice and career satisfaction were moderately correlated, albeit negatively, with the years of practice but the correlation was not significant ($r = -0.334$, $p = 0.071$). Some of the key obstacles that were noticed were lack of training, proper funding, excessive workload and lack of mentorship. The limitations were discovered to seriously discourage professional development and achievement. The research finds that radiographers are professional and show strong ambitions but institutional and structural constraints do not allow them to have optimal career fulfillment. It suggests systemic mentorship schemes, frequent professional development trainings, and working conditions as a way of improving career fulfillment and retention among radiographers at UBTH.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

It has been identified that career fulfillment is one of the key determinants of productivity amongst radiographers and has gained immense interest in the field (Adam & Bond, 2000). It is of immediate importance to radiographers in that an organizational success and the well-being of the employees are highly dependent on career satisfaction (Adam & Bond, 2000). This is particularly relevant within the healthcare field, in which radiographers should provide quality patient care in a challenging and usually stressful environment (Uddin et al., 2013).

Studies have established that career fulfillment is important in determining the productivity of employees. Actually, various researches have established that when individuals are not satisfied in their workplaces, this may result in problems such as high rate of turnover, absenteeism, lateness, and even increased complaints at the workplace. On the other hand, when workers are satisfied with their professions, they tend to be more content with their work- this usually leads to optimal output (Dowell et al., 2001).

The needs and goals are different in every person and these individual factors tend to influence the behavior and what people seek in a working environment. The social condition surrounding individuals, culture, and the nature of work are all some of the factors that may influence the way individuals interact and perform at the work place (Eke, 2004).

The concept of career fulfillment is typically a combination of two, that is, intrinsic and extrinsic job satisfaction. Intrinsic satisfaction is the satisfaction with the job, the level of meaning or interest in the tasks, whereas the extrinsic one concerns the

environment and conditions, such as salary, management style, the relationships with other employees, and communication (Eke, 2004).

In the case of radiographers, career fulfillment may be understood to be based on the type of benefits and opportunities they would like to receive when they have taken up a job. These are the benefits that are usually pegged on the generosity of employers in their bid to attract and retain talented employees. Simultaneously, radiographers desire to feel that they are putting their skills to good use and that their input is not ignored. As an organization, the ideal is to recruit the appropriate individuals to fill particular positions. As the fit is good, the employee will be content with what they can receive and the employer will have a person who fits the job very well, it sets a win-win scenario (Eke, 2004).

Although most of the researchers have examined the reasons behind the happiness of some individuals at work and why others are not, little is known in depth about what affects job satisfaction among the hospital staff. We just know that when employees are satisfied, they tend to be productive, motivated as well as loyal (Gibson, 2007). Career fulfillment has also been associated with an increase in the quality of service and patient satisfaction in the health care sector. This is because the manner in which employees will deal with patients can significantly affect the perceived care.

Several research works have been devoted to the topic of the career fulfillment in medical facilities, and increasingly, there is a growing concern in understanding how it is applicable to a specific group of professionals such as radiographers. An example is Govender (2019), who suggested the motivation-hygiene theory, according to which motivation-inducing factors at work that allow people to feel fulfilled are not the same ones that make people feel dissatisfied. This theory states that the real achievement of the career is because of the motivators such as promotion

opportunities, personal growth, recognition, achievement, and responsibility. These are personal rewards which are internal. Conversely, the external factors such as salary, job security, working conditions, company policies, and relations with supervisors and coworkers, also have a significant role to play, which is referred to as the hygiene factors.

1.2 Statement of the problem

Radiographers are essential to healthcare delivery system because this is where an important diagnostic imaging service is offered to help in the proper diagnosis and handling of patients. Nonetheless, empirical research on career satisfaction and professional development objectives of radiographers, especially in the Nigerian setting, is scarce. Available literature does not give much information on whether radiographers are realizing a significant career development or are facing obstacles that reflect on their career development (Gobler, 2002).

The data deficiency makes the inability to evaluate how satisfactory radiographers are with their careers, whether they are motivated to continue in their profession and are retained in the profession. There are anecdotal reports that a large number of radiographers have difficulties in achieving their personal and career career goals, which can adversely affect their job satisfaction, output, and dedication to the profession. Consequently, a systematic investigation is necessary to investigate the aspects that determine career satisfaction in radiographers, the possible areas that can be improved, and the evidence-based recommendations that can be offered as a guideline to institutional policies and workforce development practices.

1.3 Research Questions

1. What are the career objectives of radiographers in the area under study?
2. To what extent do radiographers feel fulfilled in their current roles?

3. What challenges do radiographers face in achieving their career goals?

1.4 Hypotheses

Null Hypothesis (H_0): Years of experience and career fulfillment have no significant relationship among radiographers in University of Benin Teaching hospital.

Alternative Hypothesis (H_1): The years of practice and career fulfillment among radiographers in University of Benin Teaching Hospital has a significant relationship.

1.5 Aims and Objectives

- **Aim**

The proposed study will involve determining the degree of career satisfaction among radiographers at the University of Benin Teaching Hospital.

- **Objectives**

1. To determine career objectives common to radiographers in the University of Benin Teaching Hospital.

2. To establish a data store for career fulfillment of radiographers in the University of Benin Teaching Hospital.

3. To ascertain some of the challenges radiographers encounter in the course of achieving their career objectives.

1.6 Significance of the Study

The study is significant because it examines career satisfaction of radiographers in the University of Benin Teaching Hospital (UBTH). Knowing the degree of their satisfaction will assist in improving the training programs, job satisfaction and long term professional growth in radiography. This study will benefit by providing information that will assist in:

1.Give evidence of career satisfaction amongst radiographers in UBTH.

2.Determine the major determinants of job satisfaction and motivation.

3.Illuminate obstacles to career goal achievement among Radiographers.

4.Contribution policy formulation on enhancing employee retention.

1.7 Scope of Study

This paper aims at determining the extent of career fulfillment among radiographers in the University of Benin Teaching Hospital (UBTH). It includes their career goals, perceived difficulties and issues that affect job satisfaction at the working period. Only the radiographers who are still training at UBTH are included in the study.

1.8 Operational Definition of Terms

1. Career Fulfillment: How satisfied and successful are radiographers about their career aspirations and professional expectations.

2. Radiographers: Registered healthcare practitioners who are taught the basics of administering medical imaging tests and guaranteeing safety of radiation in patient care at the University of Benin Teaching Hospital (UBTH).

3. Career Objectives: The individual and mental objectives radiographers expect to reach during and following their internship.

4. Challenges: Any obstacles or hardships that the radiographer encounters during the process of achieving his or her career objectives such as work environment, supervision, or lack of resources.

5. UBTH: The healthcare institution in which the study will be conducted is University of Benin Teaching Hospital.

CHAPTER TWO

LITERATURE REVIEW

2.1 CONCEPTUAL REVIEW

2.1.1 THE MEANING of CAREER FUFILLMENT.

Career satisfaction is important in ensuring stability of the system, staff turnover, and in staff motivation. In case motivation has been regarded as the force to work and maintain effort in order to achieve organizational objectives, then any good system should aim at fortifying major aspects such as morale and job satisfaction which have been known to affect motivation. Greenberg andBaron (2007) suggest that low motivation is the second greatest problem with the health workforce after the shortage of staff.

Hollyforde and Whiddett (2002) have indicated that there are various fundamental human resource tools that are needed to facilitate career fulfilment. They are access to required materials, remunerations, continuous training, positive working atmosphere, supervision, and recognition of employees.

The previous theories concerning career fulfilment including that proposed by Rad and De Moraes (2009) identified compensation as a hygiene aspect as opposed to a motivator. That is, to avoid dissatisfaction, one must have a fair salary, however, just a rise in salary will not always increase career fulfilment. Nevertheless, there has been an argument that even in a case where there is a dire need of pay and benefits, salary increments may actually serve to keep employees.

2.1.2 THE NATURE OF CAREER FULFILMENT AMONG PRACTICING RADIOGRAPHERS

The concept of career fulfilment among practising radiographers is a complex one that has drawn attention of numerous studies. Many studies demote that there is a great connection between career fulfilment and motivation. Even though the definition of motivation is usually hard to pinpoint, a positive relationship that exists between career fulfilment, motivation, and performance is well established. Basically, motivation, which is developed by the satisfaction of an employee in the job, determines the way an employee decides to behave (Adams and Bond, 2000).

Fundamentally, career fulfilment refers to a positive or fulfilling emotion, which results after an assessment of the work or job experience. It takes place when people have the feeling that the core professional values are met and upheld at the workplace as long as the values correspond to their personal needs. According to Adams and Bond (2000), career fulfilment is basically, an emotional and affective response to various aspects of work.

Career fulfilment is not a mere fulfilling of job requirements, but rather the employees identifying themselves with the organization, putting in their utmost efforts and being dedicated towards the organization. Rewards have a great ability to improve career fulfilment and job performance. Uddin et al. (2013) noted that in case managers wish to increase fulfilment they should ensure the work environment around them is conducive to ensure that their employees participate in the work and cope with workplace stress.

Career fulfilment also requires the consideration of similar notions as morale and attitude. Morale is the degree in which the needs of an employee are satisfied and the extent of satisfaction that employees attach to their job. Attitude on the other hand

refers to a tendency to act in a particular manner and is informed by thoughts, feelings and past experiences- it encompasses cognitive, emotional and behavioural components.

Dowell et al. (2001) emphasized the significance of managers remaining sensitive to the employee attitudes as they state that the job satisfaction may diminish faster than it arrives. Satisfaction at work is not all that one should strive to do but life outside work is equally relevant in determining the level of satisfaction of employees on the job. Since work satisfaction is a component of life satisfaction, the managers ought to seek to promote the two.

The variation in commitment and job performance can also differ in other groups of employees and is usually related to a number of factors. This flexibility enables the managers to know which groups would tend to exhibit signs of dissatisfaction. As a rule, aged employees are more satisfied with their jobs, but this satisfaction is likely to decrease due to lack of opportunities to develop and career and nearing retirement. Equally, managers tend to have elevated rates of job satisfaction, probably because of the better wages, the working conditions and job roles which are more rewarding (Eke, 2004).

Career fulfillment theories represent a subset of theories that are applied to explain satisfaction and dissatisfaction within the workplace**.**

2.1.3 CCAREER FULFILLMENT THEORIES

Career fulfillment theories are varied and the following are the theories:

2.1.3.1 CONTENT THEORIES OF CAREER FULFILLMENT.

Content theories emphasize on the understanding of the particular needs and motivation that determine the people in a workplace. These theories point out the internal motivations that make people act in a given manner at the workplace. In this

view, managers can determine and predict the needs of the employees through a close monitoring of their behaviors and reactional patterns.

2.1.3.2 Maslow's Hierarchy of Needs

According to the theory by Maslow, human needs are arranged in a hierarchical sequence starting with the simple ones to advance. They are physiological needs, safety and security, social belonging, esteem and self-actualization. According to the theory, when the lower-level need is not fulfilled, it is possible that it can inhibit the attainment of the higher-level needs. According to such a hierarchy, lower-order needs have to be satisfied before people can concentrate on higher-order desires. Consequently, the individuals who continue to struggle with the need to survive are not normally concerned with the process of attaining personal growth or self-fulfilment (Gobler, 2002).

2.1.3.3 Herzberg's Two-Factor Theory

In the late 1950s Frederick Herzberg came up with a theory that suggested that there are two different factors that affect career fulfillment, they are the motivators factors and the hygiene factors. Hygiene factors are those that may result in dissatisfaction when they are not available but may not result in satisfaction when they are. These are such factors as salary, working conditions and company policies. Conversely, achievement, recognition and interest in the work itself- are the factors that actually play down to motivation in regards to satisfaction. The theory by Herzberg is also applicable because it focuses on the significance of the connection between performance and rewards, both extrinsic, such as recognition, and intrinsic, such as an interesting job, to increase motivation and job satisfaction (Abdulkhamidova, 2021).

2.1.3.4 Vroom’s Expectancy theory

The Expectancy Theory developed by Vroom suggests that career fulfillment is determined by the belief of an individual that his/her effort will be used to have an effective performance (expectancy), such performance will be rewarded (instrumentality) and that the reward has personal value (valence) (Greenberg & Baron, 2007). According to the theory, people will apply the level of effort to their work considering how much the expected outcome will enhance satisfaction or minimise dissatisfaction. To the bare bones, the theory is focused on the significance of knowing of individual goals and how the relationships exist between effort and performance, performance and rewards, and rewards and goal fulfillment. It recognizes that motivation does not exist universally and thus is different in individuals hence a contingency model. It is also not enough to just know what a person needs but whether the person believes that a high performance will in fact quench such needs (Vroom et al., 2015).

2.1.4. JOB DESIGN AND WORK ENVIRONMENT OF PRACTICING RADIOGRAPHERS.

Job design of working radiographers is important in determining the attitudes of these workers towards work which eventually determines their performance and career satisfaction. According to Hollyforde & Whiddett (2002) job design involves planning and organization of tasks, and the contexts of these tasks. According to Rad & De Moraes (2009), people respond negatively to strict and highly regulated work environments, and it is therefore important that hospitals and health care institutions create an environment that gives the radiographers the freedom to think and be creative. Such an active and supportive atmosphere may encourage radiographers to perform on a higher level and express more commitment to patient care, which helps in addition to career fulfilment. The working conditions of doing work are as

determining as the work itself since they influence the comfort of the employees, their safety and overall performance. People are the greatest asset of a hospital, so it is important to recruit and retain competent professionals, and thus, it is crucial in service industries such as healthcare. Psychological and interpersonal environments are a part of the human environment which has a big influence on the performance of the employees and their satisfaction with their work. The level of individual and psychological contentment in the work environment of radiographers is the direct cause of the quality and quantity of their work (Barrows & Wesson, 2000).

2.2 EMPIRICAL REVIEW

2.2.1 RELATED LITERATURE

- Assessing challenges encountered by Radiographers during clinical practice

The study conducted by Obotiba et al. (2017) on the key challenges affecting Radiographers in Northern Nigeria indicates the following. The invited Radiographers were administered a structured questionnaire and different interview guide was applied on chief interns to assess the available facilities, staffing, and clinical practice conditions. Spreadsheet Professional version 16.0 was used to analyze the data. The response rate based on 55 questionnaires sent out is 85.7 per cent, 50 questionnaires were completed and returned. Results revealed a number of serious concerns: 34 percent of interns took 8 to 14 months after graduation before they were placed; 72 percent said they had not been oriented properly on the job; 73 percent of them said their supervision was subpar; 60 percent said that there were no functional radiologic machines and enough senior radiographers in the area; and 21.9 percent were dissatisfied with the way the management addressed their welfare issues. The researchers found that the problems of Radiographers are closely interconnected and are based on the lack of training, practice environment, and mentorship patterns. The

most important barrier was found to be poor mentorship. Mgbecheta et al. (2023) conducted another cross-sectional study in a tertiary Hospital in South East Nigeria, which was meant to compare outlook of job satisfaction among the healthcare workers in the said hospital. The sample size was 281 medical workers that included: doctors, nurses, medical laboratory scientists, pharmacists, physiotherapists, and radiographers. All of them were engaged in the study with the help of the structured and self-administered questionnaire. The SPSS version 20 was used to analyze the data with a determined statistical significance of p [?] 0.05. The results showed that the most average levels of job satisfaction were recorded by the radiographers and physiotherapists in the healthcare groups surveyed. The doctors and nurses were the least satisfied on average as compared to their counterparts. An article authored by Khoza et al. (2018) exploring the outcomes of job satisfaction when applied to radiographers in Gauteng, South Africa. The study was conducted to establish the reasons behind the exit of radiographers into the private sector by the public sector in Gauteng. The research adopted a quantitative descriptive cross-sectional design to determine the factors that have an effect on the decision of diagnostic radiographers to quit the public sector. A questionnaire that was developed personally was handed out to diagnostic radiographers in 22 private hospitals in the Gauteng province. The analysis of data, performed with the help of paired samples t-test, showed that remuneration, working conditions, the support of the profession, and the development of the career played an essential role and were among the top factors that motivated radiographers to leave the public sector. Another descriptive cross-sectional study by Usoro et al. (2024) that was aimed at measuring the difficulties facing newly qualified Radiographers during the initial stages of clinical practice in Southwestern Nigeria was designed. The research was done on 360 freshly graduated radiographers in some

of the hospitals in South West Nigeria. A well-constructed questionnaire was used to gather the data, which was analyzed with the help of descriptive and inferential statistics (the most significant communication issues identified were problems with communicating with patients and carers (mean score: 3.8 +- 0.8) and other members of the team (3.8 +- 1.0). The problems in clinical practices were the impossibility to conduct special examinations without assistance (1.7 +- 0.6) and the inability to prioritize examinations according to the urgency (1.6 +- 1.0). In technical issues, the participants found it difficult to take remedial action to poor quality radiographs (2.1 +- 0.5) and limited to certain machines (1.9 +- 0.7). The workload-related problems were too many work assignments (2.0 +- 0.4) and lack of supervision by senior employees (1.7 +- 0.9). The problems with welfare mentioned included tardiness in paying salaries (2.1 +- 0.7) and inability to get internship positions (2.1 +- 0.6). The chi-square analysis gave no statistically significant value between the type of challenges faced and the categories of new qualified radiographers (kh2 = 4.806, df = 2, p = 0.09).

CHAPTER THREE

METHODOLOGY

3.1RESEARCH SETTINGS

The research is going to be carried out within the University of Benin Teaching Hospital (UBTH), Benin City, Edo State, Nigeria. UBTH is a federal tertiary healthcare center with a reputable reputation of having extensive medical services and training programs. The hospital is an important clinical training facility to medical and allied health students including Radiography interns. UBTH is an ideal environment to evaluate career fulfillment because of the realistic perspective provided by the institution in terms of opportunities, challenges, and expectations that radiographers encounter in the transition period in their practice.

3.2STUDY DESIGN

The study will take a descriptive cross-sectional study design. It will be targeted at measuring the rate of career satisfaction among radiographers at the University of Benin Teaching Hospital (UBTH).

3.3 TARGET POPULATION

All registered Radiographers in the University of Benin Teaching Hospital (UBTH), Benin City, Edo State, Nigeria are the population that is to be used in this study.

3.4 Sampling methods/ Sampling size.

This study will not have any sampling method, but rather the data will be collected using Census as the target population is small. The sample population will be equivalent to the number of radiographers at University of Benin Teaching Hospital.

UBTH number of Radiographers= 31.

The data collection tool is the questionnaire, which will be distributed to every participant in the study.<|human|>3.5 Instrument of Data Collection: The instrument of data collection is the questionnaire, which will be administered to all the participants of the study.

The data collection tool that will be used in this research will be structured self-administered questionnaire to collect pertinent and consistent data personalities. (see Apendix 1)

3.6 Validity of Instrument

To guarantee that the questionnaire is correctly gauging the desired constructs, the questionnaire will be tested in terms of face and content validity. Face validity will be evaluated by checking the reviews of expert Radiographers over whether the items seem to be suitable and relevant at first sight, whereas content validity will be examined to make sure that the questionnaire is a comprehensive measure of all the aspects of constructs under measurement, relying on expert positioning and literature review.

3.7 Reliability of Instrument

The pilot study was done before the actual data collection to determine the clarity, validity, and reliability of the research instrument. The pilot test targeted a small sample of radiographers who were selected in one of the hospitals not included in the main study area, which meant that the participants was not representative of the actual population under the study. The key aims of the pilot study were to define confused questions, check the appropriateness of options used to respond to questions and calculate the time needed to complete the questionnaire.

The responses received during the pilot participants were closely scrutinized and they conducted appropriate changes to enhance the phrasing, structure, and the logical

sequence of the questionnaire items. This procedure allowed making the instrument transparent, topical, and able to gather the targeted information in an accurate manner. The internal consistency of the instrument was statistically checked with the help of Alpha coefficient of Cronbach. The coefficient of reliability was a result of 0.70 that is acceptable as a general threshold of research in the social behavioral sciences. This value suggested that the questionnaire possessed good internal consistency and that it could be used to measure career fulfillment and the other variables considered among radiographers.

3.8 Method of Data Collection

The semi-structured questionnaire was used to collect primary data on the demographic details of the respondents, career-related ambitions that most radiographers shared, and factors that impeded career achievement by radiographers. The questionnaires would be distributed face-to-face, through printed copies to the respondents at their convenience through Online platforms such as Google forms.

3.9 Method of Data Analysis

The respondents obtained data were analyzed using descriptive and inferential statistics to be able to answer the objectives of the study. The data was summarized and presented in an organized manner through clear and descriptive statistics including frequencies, percentages, means and standard deviations. These statistics were useful to explain the most common career goals, the rates of career satisfaction, and issues that radiographers struggle with to meet their professional aims. It was tabulated and given in percentages so that it could be easily interpreted and compared. The hypotheses of the study were tested and possible relationships between main variables analyzed with the help of inferential statistics. To be more precise, Spearman rank-order correlation test was employed in order to identify the level and

the nature of the correlation between career satisfaction and the other variables considered to measure months of experience, career development perspectives, and the attainment of career objectives. This is due to the fact that the Spearman correlation test was selected as the data were measured on the ordinal scale (based on Likert-type responses), and the data do not always follow the normal distribution, which is why the test was selected as the most appropriate non-parametric test.

A p-value of below 0.05 was taken to be statistically significant meaning that the observed relationships could not have come about due to chance. The entire analysis was done using the Statistical Package of the Social Sciences (SPSS) version 27.0 that offered good computing facilities in manipulating and analyzing the dataset.

3.10 Ethical Consideration

All the information obtained during this research among the radiographers will be kept in high levels of confidentiality and anonymity. The research will be conducted with the University of Benin Health Research Ethical Committee giving the required ethical approval before the research is started. All pertinent data protection laws will be followed to the letter in the study.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1 DATA PRESENTATION

4.1.1 Introduction

This chapter presents the analysis of the data collected from Radiographers in the selected radiology department of the University of Benin Teaching Hospital. Responses to each item in the questionnaire most relevant to obtain accurate results of the research were singled out, analyzed and presented.

The analysis is structured according to the study objectives:

4. To determine career objectives common to radiographers in the University of Benin Teaching Hospital.

5. To establish a data store for career fulfillment of radiographers in the University of Benin Teaching Hospital.

6. To ascertain some of the challenges radiographers encounter in the course of achieving their career objectives.

4.1.2 Demographic Characteristics of Respondents

Table 1: Demographic Information of Respondents (N=30)

Table 1 shows the demographic data of the respondents involved in this study. It reveals that 24 (80%) of the respondents at the time of study were female and the rest of the respondents (20%) were males. The table also shows that majority of the respondents (83.3%) were within the age range of 25-35 years and none of the participants were older than 45 years. The table further illustrates that the entire respondents involved in this study were B.Sc degree holders only. 22 (73.3%) of the 30 respondents were quite experienced with 5-10 years of practice and the rest (8;

26.7%) of the respondents were in the early years of practice with less than 5 years experience.

Table 4.1: Demographic Information of Respondents (N=30)

Variable	Category	Frequency	Percentage
Sex	Male	6	20.0
	Female	24	80.0
Age	Below 25	2	6.7
	25-35	25	83.3
	36-45	3	10.0
	Above 45	0	0.0
Highest Degree attained	DCR/DIR	0	0.0
	B.Sc	30	100.0
	M.Sc	0	0.0
	PhD	0	0.0
Years of practice	Less than 5yrs	8	26.7
	5-10yrs	22	73.3
	11-20yrs	0	0.0
	Above 20yrs	0	0.0

4.1.3 Respondents' Career Objectives as Radiographers

Summary of Key Findings: All respondents possessed distinct career objectives in the field of radiography and it was evident that all the participants wanted to work in a particular area either in CT, MRI, or radiotherapy. Many (86.7) of them were planning to do postgraduate studies or professional qualification indicating that they are highly motivated to learn further. Approximately 63.3% intended to undertake teaching or lecturers, 56.7% intended to join administration or management and

53.3% intended to join research. In general, the results point to the high-level and varied career goals among the radiographers at UBTH being oriented on specialization, education, and leadership.

Table 4.2: Responses on Career Objectives as Radiographers (N=30)

Questions	Responses (Frequency %)		
	Yes	**No**	**Maybe**
Do you have clearly defined career objectives in radiography?	30 (100%)	0 (0%)	0 (0%)
Is specialization in a particular field of radiography (e.g., CT, MRI, radiotherapy) one of your goals?	30 (88.69%)	0 (0%)	0 (0%)
Do you intend to pursue postgraduate education or professional certifications?	26 (86.7%)	1 (3.3%)	3 (10%)
Is teaching/lecturing in radiography part of your long-term career plan?	19 (63.3%)	3 (10%)	8 (26.7%)
Do you aspire to take up administrative or managerial positions in radiography?	17 (56.7%)	5 (16.7%)	8 (26.7%)
Do you intend to engage in research as part of your career growth?	16 (53.3%)	5 (16.7%)	9 (30%)

Table 4.2 presents the responses of the participants on their career objectives as Radiographers. The findings show that all of the radiographers involved in this study had clearly defined their career objectives in Radiography. The results also show that all of the participants consider specializing in a particular field of radiography such as CT, MRI, radiotherapy as one of their goals. Majority (86.7%) of the respondents had intentions of pursuing postgraduate education or professional certifications which shows keenness for more knowledge. 63.3% of the participants considered teaching/lecturing in radiography part of their long-term career plan, A significant

proportion of the participants seemed unsure. 17 (56.7%) of the respondents aspired to take up administrative or managerial positions in radiography and 16 (53.3%) had intentions of engaging in research as part of their career growth.

4.1.4 Respondents' career fulfillment assessment as Radiographers

Summary of Key Findings: The level of career fulfillment among radiographers was mostly moderate with significant uncertainty in responses. It was noted that only a third (33.3%) of them believed that they were making any steps toward their career aspirations, and only 30% of them were satisfied with their career development. There seemed to be no consistency in accessing professional development, and the answers were divided evenly. Opportunities to be recognized and promoted were considered to be sufficient by 36.7% and one out of four were unsure. Contentment with mentorship was a little more than 43.3%, yet a considerable amount were unsure of what support might be available. In general, the findings indicate that there is moderate job satisfaction and little trust in terms of promotion, appreciation, and professional assistance.

Table 4.3 illustrates the responses assessing the participants' career fulfillment in Radiography. According to the findings, career fulfillment among the radiographers was generally moderate, with a high degree of uncertainty across most responses to the items. Approximately one-third (33.3%) of respondents felt they were on track to reaching their career goals, while nearly half (46.7%) were unsure. Similarly, only 30% expressed satisfaction with their career growth, indicating limited opportunities for advancement. Opinions on professional development were evenly split (33.3% each for Yes, No, and Maybe), indicating inconsistent access or awareness of training opportunities. As for promotions and recognition, 36.7% felt they were adequate, but 40% were unsure, possibly due to communication gaps or unfair promotion

procedures. Although an equal percentage were still confused, 40% of respondents reported that their current roles aligned with their long-term objectives. The evaluations for mentoring were marginally higher, with 43.3% of the respondents being satisfied, but again, at 40% unsure, indicating that different people have different experiences with support systems. The results generally indicate a reasonable level of job satisfaction but a general lack of confidence regarding prospects for advancement, mentorship, and recognition.

Table 4.3: Responses on career fulfillment assessment (N=30)

Questions	Responses (Frequency %)		
	Yes	**No**	**Maybe**
Do you feel you are currently on track to achieving your career goals?	10 (33.3%)	6 (20%)	14 (46.7%)
Have you been satisfied with your career growth so far at UBTH?	9 (30%)	11 (36.7%)	10 (33.3%)
Do you believe UBTH provides opportunities for professional development?	10 (33.3%)	10 (33.3%)	10 (33.3%)
Are promotions and recognitions in your workplace adequate?	11 (36.7%)	7 (23.3%)	12 (40%)
Do you believe your current role aligns with your long-term career objectives?	12 (40%)	6 (20%)	12 (40%)
Are you satisfied with the level of mentorship and support provided by senior radiographers?	13 (43.3%)	5 (16.7%)	12 (40%)

4.1.5 Challenges faced by Radiographers in Achieving their Career Objectives

Summary of Key Findings: Majority of radiographers (86.7) indicated that they had difficulty in meeting their career objectives. Limited training opportunities (83.3%), poor funding or sponsorship of further education (83.3%), and heavy workload or stress (76.7%), were the listed main barriers. Also, improper mentorship and absence of current equipment was reported as one of the greatest barriers to career growth by 80%. These results indicate structural and systemic causes which limit the professional development and achievement of radiographers.

Table 4.4: Responses on Challenges faced by radiographers in Achieving their Career Objectives (N=30)

Questions	Responses (Frequency %)		
	Yes	**No**	**Maybe**
Have you encountered challenges in pursuing your career objectives?	26 (86.7%)	2 (6.7%)	2 (6.7%)
Do limited training opportunities hinder your professional growth?	25 (83.3%)	3 (10%)	2 (6.7%)
Does lack of adequate funding or sponsorship affect your ability to pursue further education?	25 (83.3%)	4 (13.3%)	1 (3.3%)
Do you feel workplace stress or workload affects your career progression?	23 (76.7%)	5 (16.7%)	2 (6.7%)
Are mentorship and guidance from senior radiographers readily available to you?	24 (80%)	4 (13.3%)	2 (6.7%)
Does lack of modern equipment or technology at work affect your career development?	24 (80%)	3 (10%)	3 (10%)

Table 4.4 shows the responses on challenges faced by radiographers in achieving their career objectives. Majority (86.7%) of the respondents reported that they have encountered challenges in the course of pursuing their career objectives, 83.3% of them reported that limited training opportunities hindered their professional growth, 83.3% believed that inadequate funding or sponsorship affected their ability to pursue further education, 76.7% of the respondents felt that workplace stress or workload affected their career progression, 24 (80%) out of the 30 participants reported that mentorship and guidance from senior radiographers readily available to them and that lack of modern equipment or technology at work affected their career development.

4.1.6 Hypothesis Testing

Hypotheses

Null Hypothesis (H_0): There is no significant relationship between years of practice and career fulfillment among radiographers at University of Benin Teaching Hospital.

Alternative Hypothesis (H_1): There is a significant relationship between years of practice and career fulfillment among radiographers at University of Benin Teaching Hospital.

Test of Hypothesis using Spearman's Rank Correlation

Table 4.5: Spearman's Correlation between Years of Practice and Career fulfillment

Practice years	N	Median score	Mean rank	Test-statistic	p-value
Less than 5 years	8	2	20.1	**ρ (Spearman's rho) = -0.334**	**0.071**
5-10 years	22	2	13.8		
11-20 years	0	2	0		

Above 20yrs	0	2	0		

Null Hypothesis (H_0): There is no significant relationship between years of practice and career fulfillment among radiographers at University of Benin Teaching Hospital.

Spearman's Correlation Result: $\rho = -0.334$ $p = 0.071$; Since $p = 0.071$ is greater than 0.05, we fail to reject the null hypothesis H_0.

Conclusion: There is a moderate, negative but insignificant correlation between Radiographers' years of practice and Radiographers perception of career fulfillment. this suggests that In this study, there is not enough evidence to draw the conclusion that years of practice and professional fulfillment are significantly correlated.

4.2 DISCUSSION

This study assessed intending career fulfillment in Radiography amongst Radiographers at the University of Benin Teaching Hospital. The study specifically assessed the Radiographers' career objectives, career fulfillment and the challenges faced by the radiographers in the course of achieving their career objectives.

Radiographers currently practicing at The University of Benin Teaching Hospital radiology department were given questionnaires to attempt and after distribution of the questionnaires, of these Radiographers only 30 attempted and completed their questionnaires. The demographic information shows that at the time of the survey, 24 (80%) of the respondents were female, while the remaining 20% were male. The chart also reveals that none of the participants were older than 45 years and that the majority of respondents (83.3%) were between the ages of 25 and 35. Also, the demographic data showed that all of the participants in this study had only a B.Sc. Of the 30 respondents, 22 (73.3%) had 5-10 years of experience and were highly

experienced, while the remaining 8 (26.7%) were new to the field of radiography and had less than 5 years of experience.

Our study's conclusions show that although a small percentage of the radiographers at the University of Benin Teaching Hospital report that they are on course to meet their career objectives, a sizable majority are either unsure or unhappy with their level of job satisfaction. For instance, a large degree of ambivalence was shown by the high percentage of "Maybe" replies across important items and the fact that only one-third of respondents felt clearly connected with their long-term aspirations. This tendency is consistent with findings in other literature. For example, a recent multi-national study conducted by Kennedy et al. (2025) Titled ‘High workload and under-appreciation lead to burnout and low job satisfaction among radiographers” found that workload and lack of recognition were the main causes of 44.2% of participants' job dissatisfaction and 43.7% ambivalence. In another similar study by Bwalya et al. (2023) who investigated Workplace experiences of diagnostic radiographers, on job satisfaction and staff retention in the public health sector in Lusaka District of Zambia reported that Radiographers in Zambia's public sector identified inadequate recognition methods, a severe workload, and a lack of professional growth as the main causes of their job discontent and desire to quit.

The weak negative relationship ($\rho = -0.334$, $p = 0.071$) between years of practice and professional fulfillment is of special relevance in our study. This pattern implies that more experienced radiographers can feel less fulfilled than their less seasoned peers, even though it is not statistically significant. This is in line with a study by Tahiri et al. (2025) on professional identity and job satisfaction among Moroccan radiographers discovered that those with over ten years of experience were substantially less satisfied with their aspirations for their future careers than those with less than five

years (P = 0.003). Such findings call into question the premise that more experience automatically equates to better career fulfillment; instead, they indicate to potential stagnation, unmet progression expectations, or a lack of continued development among mid- to late-career employees.

These findings have significant consequences for the context of our study. The significant proportion of "Maybe" responses demonstrates the need for distinct career paths, frequent mentorship, and structured professional development programs to turn intention into action. The literature strongly supports this: radiographers in Saudi Arabia were fairly satisfied overall, but significantly less satisfied with promotion chances, working conditions, and perks (Alfuraih et al., 2022). Radiographers' early enthusiasm may fade in the absence of proactive institutional support, leading to the sense of drift shown in our study.

Although the data analysis revealed some valuable information about the career satisfaction of radiographers at the University of Benin Teaching Hospital, some limitations are also to be considered because they could have affected the analysis of the results. The sample size of the study was relatively small, firstly, consisting of a rather limited number of radiographers in one institution (UBTH). This small sample lowers the level to which the results can be extrapolated to the entire population of radiographers in Nigeria since policies at institutions, training opportunities, and work conditions might differ considerably across hospitals and regions. Self-administered questionnaires were also a major source of data used in the study and these are susceptible to bias in response. Responses of participants were based upon their own beliefs and perceptions, which were possibly subjective to them or had biases in terms of recall mistakes or the motivation to give socially acceptable answers. This could have influenced some respondents to exaggerate their degree of career gratification or

dissatisfaction with the available career development opportunities. In addition, the data were obtained at one time and, thus, it was not feasible to conduct causal correlations between the variables of interest, including years of experience, job satisfaction, and perceived career advancement on the basis of cross-sectional design. Nevertheless, even with these shortcomings, the research does provide useful preliminary findings which point to some factors that can lead to increased amount of appreciation of radiographers in terms of the sense of career fulfillment and a basis at which a more extensive, multi-institutional study can be established in the future.

CHAPTER FIVE

CONCLUSION, RECOMMENDATIONS, LIMITATIONS AND SUGGESTIONS FOR FUTURE STUDIES

5.1 CONCLUSION

This study assessed intending career fulfillment among radiographers at the University of Benin Teaching Hospital. The results showed that although the majority of radiographers have specific career objectives, many are either unsure of or unhappy with their professional development. Years of practice and fulfillment have a weakly negative association, indicating that more experience does not always translate into greater satisfaction. This trend is influenced by important elements such a lack of mentorship, ambiguous promotion tracks, and insufficient development chances. Although they encounter structural obstacles that prevent complete career fulfillment, radiographers at the University of Benin Teaching Hospital often exhibit a high level of professional dedication.

5.2 RECOMMENDATIONS

1. The hospital management ought to establish a formal mentoring program whereby the early career radiographers are mentored by the experienced. Career guidance, technical guidance and personal growth should be emphasized in such programs, as it is met regularly, assessed and progress of an individual monitored.
2. The management ought to arrange quarterly in-service training and workshops to focus on new imaging technology, leadership, and professional ethics. Also, the

hospital should have a staff development plan that will involve providing funds toward postgraduate studies or to specialty certifications.

3. Radiographers need to be motivated and assisted to join institutional and joint research. Things like research grants, or recognition awards could be used as incentives to participate. Professional development and retention should also be improved by helping the hospital have access to special training opportunities in advanced imaging fields, such as MRI, CT, and interventional radiography.
4. The University of Benin Teaching Hospital management ought to conduct semi-annual consultative meetings with radiographers to talk about career aspirations, challenges at workplace as well as institutional goals. Such participatory brand would bring in inclusiveness, morale and long term professional commitment.

5.3 LIMITATIONS

1. A number of factors restricted this study and could affect the way in which this study is interpreted. To begin with, the study was carried out on a small sample of radiographers in one institution (UBTH), and it is not possible to generalize the findings on other hospitals or regions in Nigeria.
2. Self-administered questionnaires also raised the likelihood of responding subjectively since the respondents responded based on personal perceptions, which may have been affected by social desirability or subjectivity. Notwithstanding these weaknesses, the research offers some helpful initial results on which the factors that affect the career fulfillment of radiographers are based.

5.4 SUGGESTIONS FOR FUTURE STUDIES

1. Further studies will involve radiographers in various hospitals and geographical locations in Nigeria to determine the overall picture on career fulfillment in the profession.

2. Later research needs to be done in a longitudinal research design to assess the changes of career satisfaction, motivation and professional development with time.
3. The next research must also evaluate how structured mentorship, ongoing education and professional development programs affect job satisfaction, retention and general productivity of radiographers.

REFERENCES

Adams, A., & Bond, S. (2000). Hospital radiographers' career fulfilment. *Advanced Radiography*, *21*(12), 108–114.

Alfuraih, A. M., Alsaadi, M. J., & Aldhebaib, A. M. (2022). Job Satisfaction of Radiographers in Saudi Arabia. *Radiologic technology*, *93*(3), 268–277.

Alshmemri, M., Shahwan-Akl, L., & Maude, P. (2017). Herzberg's two-factor theory. *Life Science Journal*, *14*(5), 12-16.

Barrows, D., & Wesson, T. (2000). A comparative analysis of job satisfaction among public and private sector professionals. *The Innovation Journal: The Public Sector Innovation Journal, 5*(1), 1-20.

Bwalya, M., Sunder, R., Munsanje, F., & Bwanga, O. (2023). Workplace experiences of diagnostic radiographers, on job satisfaction and staff retention in the public health sector in Lusaka District of Zambia. *Medical Journal of Zambia*, *50*(4), 355-366.

Daft, R. L., & Noel, R. A. (2001). *Organizational behaviour* (15th ed., pp. 69–72). South-Western Publishing.

Dowell, A. C., Westcott, T., McLeod, D. K., & Hamilton, S. (2001). A survey of job satisfaction, sources of stress and psychological symptoms among New Zealand health professionals. *New Zealand Medical Journal*, *114*(1145), 540.

Eke, L. (2004). Predictors of career fulfilment among radiographers in Nigeria. *Journal of Occupational Health*, *46*(5), 156–160.

Gibson, L. M. (2007). *Fundamentals of management* (14th ed., pp. 210–215).

Gobler, P. A. (2002). *Human resource management in South Africa*. Thompson Learning.

Govender, L. S. (2019). *A case study analysis of human resource management systems in selected higher education institutions in South Africa* (Doctoral dissertation, Stellenbosch: Stellenbosch University).

Greenberg, J., & Baron, R. A. (2007). *Behaviour in organizations: Understanding the human side of work* (24th ed., pp. 54–58).

Hollyforde, S., & Whiddett, S. (2002). *The motivation handbook*. CIPD Publishing.

Kennedy, E., Ryan, M., England, A., Sarkodie, B., Khine, R., & McEntee, M. F. (2025). High workload and under-appreciation lead to burnout and low job satisfaction among radiographers. *Radiography (London, England : 1995)*, *31*(1), 231–240. https://doi.org/10.1016/j.radi.2024.11.019

Khoza, T., Pieterse, T., & Motto, J. (2018). Factors affecting job satisfaction for radiographers in Gauteng, South Africa. *South African Radiographer*, *56*(1), 26-30.

Mgbecheta, J., Onyenemezu, K., Okeke, C., Ubah, J., Ezike, T., & Edwards, Q. Comparative Assessment of Job Satisfaction among Frontline Health Care Workers in a Tertiary Hospital in South East Nigeria. *AGE (years)*, *28*, 6-83.

Obotiba, A. D., Sahabo, A., Nwobi, I. C., Abubakar, A., Abubakar, M. G., Luntsi, G., ... & Ayankunle, F. (2017). Major challenges faced by intern radiographers in northern Nigeria. *J Nuring Health Sci*, *6*(3), 30-34.

Rad, A. M. M., & De Moraes, A. (2009). Factors affecting employees' job satisfaction in public hospitals: Implications for recruitment and retention. *Journal of General Management*, *34*(4), 51-66.

Tahiri, M., Abarji, J., Ziary, S., Guennouni, M., Mkimel, M., Azeddou, M., & Fares, R. (2025). Professional identity and job satisfaction among Moroccan radiographers. *Radiography (London, England : 1995)*, *31*(4), 102995. https://doi.org/10.1016/j.radi.2025.102995

Uddin, M. J., Luva, R. H., & Hossian, S. M. M. (2013). Impact of organizational culture on employee performance and productivity: A case study of

telecommunication sector in Bangladesh. *International Journal of Business and management*, *8*(2), 63.

Usoro, I. E., Adawale-George, E. O., Shuaibu, A., Ogolodom, M. P., Ezugwu, E. E., Effiong, G. M., ... & Ron, M. (2024). Challenges encountered by newly qualified radiographers in their early clinical practice in southwestern Nigeria. *Health Leadership and Quality of Life*, *3*, 47-47.

Vroom, V., Porter, L., & Lawler, E. (2015). Expectancy theories. In *Organizational behavior 1* (pp. 94-113). Routledge.

APPENDIX I

SECTION A: Demographic information

1. Sex a. male ☐ b. female ☐
2. Age a. Below 25 ☐ b. 25-35 ☐ c.35-45 ☐ d. Above 45 ☐
3. Highest Degree attained a. DCR/DIR ☐ b. B.Sc ☐ c. M.Sc ☐ d. others specify ……...
4. Years of practice a. Less than 5yrs ☐ b.5-10yrs ☐ c.10-20yrs ☐ d. Above 20yrs ☐
5. Current Designation …….

SECTION B: Section B: Career Objectives of Radiographers

Please choose the response that best represents your view

Questions	Yes	No	Maybe
Do you have clearly defined career objectives in radiography?			
Is specialization in a particular field of radiography (e.g., CT, MRI, radiotherapy) one of your goals?			
Do you intend to pursue postgraduate education or professional certifications?			
Is teaching/lecturing in radiography part of your long-term career plan?			
Do you aspire to take up administrative or managerial positions in radiography?			
Do you intend to engage in research as part of your career growth?			

SECTION C: Career Fulfillment of Radiographers

Please choose the response that best represents your view

Questions	Yes	No	Maybe
Do you feel you are currently on track to achieving your career goals?			
Have you been satisfied with your career growth so far at UBTH?			
Do you believe UBTH provides opportunities for professional development?			
Are promotions and recognitions in your workplace adequate?			
Do you believe your current role aligns with your long-term career objectives?			
Are you satisfied with the level of mentorship and support provided by senior radiographers?			

SECTION D: Challenges in Achieving Career Objectives

Please choose the response that best represents your view

Questions	Yes	No	Maybe
Have you encountered challenges in pursuing your career objectives?			
Do limited training opportunities hinder your professional growth?			
Does lack of adequate funding or sponsorship affect your ability to pursue further education?			
Do you feel workplace stress or workload affects your career progression?			
Are mentorship and guidance from senior radiographers readily available to you?			
Does lack of modern equipment or technology at work affect your career development?			