



SELINUS UNIVERSITY
OF SCIENCES AND LITERATURE

**Examining the Impact of Emotional Intelligence
on Job Performance of Radiographers
in Nigeria:
The Mediating Role of Job Satisfaction**

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ATTESTATION

I do hereby attest that I am the sole author of this dissertation, and that the contents are the result of the research and studies that I have done.

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Signature

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I want to sincerely thank Selinus University, the staff and supervisor for the opportunity and the provision of the academic environment, necessary resources and guide to enable me carry out this study successfully.

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ABSTRACT

Background: Emotional intelligence (EI) is the ability to recognize one's own and other people's emotions, to discriminate between different feelings and label them appropriately, and to use emotional information to guide thinking and behaviour (Coleman and Andrew, 2008). Emotional intelligence has been identified as one the important behavioural constructs considered to be a major contributor to performance. Performance (JP) describes the degree an employee performs the job well and contributes to the outcomes and success of a company. It has also been claimed that EI accounts for about 85 to 90 percent of outstanding performance in top management, thereby resulting in 20 percent more earnings for companies. Performance can be affected by job knowledge and skill, abilities of the work, situation within workplace, technology, equipment available and job satisfaction. Job Satisfaction (JS) is defined as "the extent to which people like (satisfaction) or dislike (dissatisfaction) their work". When an employee feels a satisfaction about the job, he/she is motivated to put greater effort to their job performance, which it tends to increase the overall performance of the organization. In other words, a satisfied individual employee and his effort and commitment are crucial for the success of the organization. The aim of the study was to examine the impact of emotional intelligence on job performance of Radiographer while assessing the mediating role of job satisfaction in this relationship.

Methodology: For this study, a quantitative, cross-sectional survey design was adopted, and data was collected using the Brief Emotional Intelligence Scale (BEIS-10), the Job Satisfaction Survey (JSS), and the Job Performance Scale (JPS) which was completed by participants. A total of 108 radiographers participated in this study. The data collection instruments were tested for reliability, and Cronbach's alpha was found to be 0.778, 0.727, and 0.955 for BEIS-10, JSS, and JPS respectively thereby ensuring reliability of the instrument. Data was analysed using tools like mean, standard deviation, Pearson Product-Moment Correlation, and PROCESS macro for SPSS (v5.0; Hayes, 2022), a regression-based approach were utilized with 5,000 bootstrap samples.

Result: Result revealed that that emotional intelligence, job satisfaction, and job performance were all strongly and positively correlated. Demographic analyses revealed that while gender had no significant effect, age and academic qualification were significantly associated with all three variables. The central hypothesis that job satisfaction would mediate the relationship between emotional intelligence and job performance was not supported by the data.

Conclusion: It is concluded that emotional intelligence is a significant direct predictor of job performance among radiographers in Nigeria. While job satisfaction is also correlated with performance, it does not serve as the primary pathway through which emotional intelligence exerts its influence.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

One of the most provocative ideas to have emerged from discussions of management concerns the possibility that a new form of intelligence pertaining to emotions is related to the performance of organisation members (Goleman, 1998). Emotions are personal experiences that arise from complex interplay among physiological, cognitive and circumstantial variables. Emotions influence all aspects of human interactions (Rami and Kumar, 2013). The human, a rational being, possesses these emotions in life which control activities and determine the path of success.

It was earlier convention that only being intelligent is sufficient to live a healthy life and to get progress in life, but it is now well accepted that emotions are an essential tool for a successful and fulfilling life. (Rami and Kumar, 2013). Emotional intelligence (EI) is the ability to recognize one's own and other people's emotions, to discriminate between different feelings and label them appropriately, and to use emotional information to guide thinking and behaviour (Coleman and Andrew, 2008). Goleman, (1995) also viewed emotional intelligence as the ability to know and manage one's own emotions, recognize them in others and to handle relationships. It includes abilities such as being able to motivate one and to persist in the face of frustrations, to control impulses and delay gratifications, to regulate one's mood and keep distress from swamping the ability to think, to empathize and to hope. It is a combination of both intrapersonal intelligence (introvert intelligence) and interpersonal skill (Tucker, Sojka, Barone, and McCarthy, 2000).

Emotional intelligence can be conceptualized in different ways and there are three models of emotional intelligence. These models are the ability model, the trait model and the mixed

models of emotional intelligence (Bar-on, 2006; Petrides, Adrian, Furnham, and Konstantin, 2001; Mayer, Caruso and Salovey, 1999). The ability model focuses on the individual's ability to process emotional information and use it to navigate the social environment. The trait model encompasses behavioural dispositions and self-perceived abilities, while the mixed model is a combination of both ability and trait emotional intelligence models. Emotional intelligence helps individuals to achieve the life quality that will make them successful and content by guiding the actions of individuals.

Emotional intelligence is correlated with better self-perception of social ability and more successful interpersonal relationship, less interpersonal aggression and problems (Mayer, 2008). Better psychological well-being is also positively correlated with higher life satisfaction, self-esteem and lower levels of insecurity or depression (Mayer, 2008). Emotional intelligence is a set of abilities that includes the ability to perceive emotions in the self and in others, ability to use emotions to facilitate knowledge, and ability to regulate emotions in self and in others (Mayer and Salovey, 1997). Although a certain degree of analytical and technical skill is a minimum requirement for success, studies indicate that emotional intelligence may be the key attribute that distinguishes outstanding performers from those who are merely adequate (Goleman, 1998). Emotional intelligence is not a one-day deal. One's family, gender, economic condition all contributes a lot in the way the one thinks, handles situation or relationship, how the one empathizes and most importantly how the one deals with stress (Trivedi, 2014). Male and female are not only different biologically, but may also be emotionally, which may have a great impact on their emotional intelligence. Personal factors such as age, gender, may affect the level of emotional intelligence of an individual.

Emotional intelligence has been identified as one the important behavioural constructs considered to be a major contributor to performance (Goleman, 1995; Goleman, 1998). It has also been claimed that EI accounts for about 85 to 90 percent of outstanding performance in

top management, thereby resulting in 20 percent more earnings for companies (Goleman, 1998; Watkin, 2002).

Performance (JP) describes the degree an employee performs the job well and contributes to the outcomes and success of a company (Shooshtarian et al. 2013).

According to this idea, some organisation members may perform effectively because they have high emotional intelligence (Cote and Miners, 2006). In any organisation, job performance of individuals becomes crucial to its survival (Aboyade, 2013), and the success or failure of an organisation depend

largely on the job performance of the individuals in that organisation (Saetang et al., 2010). To get optimum performance from employees, there is the need for some sort of motivation beyond the monthly salary (Aboyade, 2013). Performance can be affected by job knowledge and skill, abilities of the work, situation within workplace, technology, equipment available and job satisfaction (Aboyade, 2013).

Job Satisfaction (JS) is defined as “the extent to which people like (satisfaction) or dislike (dissatisfaction) their work” (Spector, 1997). It is critical to the accomplishment of any workplace (Faral and Irum, 2023). It assists employees perform better at work (Inayat and Khan, 2021) When an employee feels a satisfaction about the job, he/she is motivated to put greater effort to their job performance, which it tends to increase the overall performance of the organization. In other words, a satisfied individual employee and his effort and commitment are crucial for the success of the organization (Pushpakumari, 2008).

Radiography, a growing profession is a field of study that makes use of ionizing radiation (electromagnetic) to acquire images of the body for diagnosis. Radiological science is the understanding and interpretation of the acquired images to diagnose diseases in the body for treatment. It requires a high degree of emotional labour, a process of regulating both feelings

and expressions to achieve both the individual, and organizational goals and expectations, suppress own negative emotions to display positive emotions towards patients (Scott, 2013). Emotional intelligence is related to interpersonal and communication skills and is important in the assessment and training of medical undergraduates (Fletcher et al., 2012). Hence, radiographers must manage patient anxiety, workload, and adapt to rapidly advancing technology to achieve positive patient outcome via delivering quality high-quality patient care.

The influence of emotional intelligence and job motivation on job performance has been reported in other professions (Cote and Miners, 2006; Aboyade2013), and recent studies found emotional intelligence to be predictive of job performance in a wide variety of organizational contexts and roles (Vermuelen, 2004).

Hence, it is crucial to determine impact of emotional intelligence and job performance of

Radiographers and to ascertain the mediating role of job satisfaction on the job performance of radiographers in Nigeria as this can provide data that can really be used for predictive and prescriptive purposes in training and development of radiographers in Nigeria.

1.2 Statement of the Problem

The Nigerian healthcare system is a unique one and is often faced with numerous challenges like inadequate infrastructure and equipment, insufficient staffing, and high patient-to-practitioner ratio. Radiographers as core members of the healthcare team are also impacted by these issues which could lead to stress and burnout, inadequate job performance and decreased job satisfaction, and have an impact on the quality of services rendered. Although technical skill of radiographers is indispensable, the emotional competencies required to navigate these challenges are often overlooked.

Emotional intelligence has been identified as an important trait for healthcare professionals and healthcare students (Mackay et al. 2012). Studies have also shown that there is positive

influence of EI on job performance in various healthcare settings Vratskikh et al. (2016) Iherobiem et al. (2024). Given the paucity of research on the emotional intelligence and its impact on job performance specifically focused on radiographers in Nigeria, and the mediating role of job satisfaction in the relationship between EI and Job performance, there is need to fill the gap by examining the impact the EI of Radiographers have on their JP and the role of JS in this relationship which may provide data that can be used for predictive and prescriptive purposes.

1.3 JUSTIFICATION

Radiographers as key workers in healthcare operate in high-pressure, patient-centred environments where emotional labour is significant, and emotions control every aspect of human interaction. The knowledge of EI level of radiographers and the impact it has on their job performance, and the role job satisfaction plays in this relationship is important for understanding its positive impacts on patient care, workforce stability, job satisfaction and overall performance of the organization.

1.4 Aim of the Study

The primary aim of this study is to investigate the impact of emotional intelligence on the job performance of radiographers in Nigeria, with a focus on the mediating role of job satisfaction. This will help enhance the understanding of how emotional competencies can affect professional efficacy in the field of radiography.

1.5 Specific Objective of the Study

This study will be designed to:

1. To assess the level of EI among radiographers in Nigeria
2. To evaluate the level of job satisfaction among radiographers in Nigeria

3. To examine the relationship that exist between emotional intelligence and job performance
4. To explore the association between emotional intelligence and job satisfaction
5. To investigate the link between job satisfaction and job performance
6. To determine whether job satisfaction mediates the relationship between EI and job performance

1.6 Significance of the Study

1. This study will help radiographers provide insights on the importance of EI and job satisfaction in enhancing their performance and well-being
2. This study will also help health administrators develop targeted interventions and training programs to improve emotional competence and job satisfaction, which will help improve patient care
3. This study will help policy makers understand the factors that influence radiographers' performance to formulate policies that address workforce challenges and improve service delivery.
4. This study will contribute to the existing body of knowledge on EI, job satisfaction, and job performance in Nigeria and serve as a foundation for future research.

1.7 Research questions

1. What is the level of emotional intelligence among radiographers in Nigeria?
2. What is the relationship between emotional intelligence and job performance of Radiographers?
3. Is there a significant relationship between emotional intelligence and job

satisfaction of radiographers?

4. Does job satisfaction mediate the relationship between emotional intelligence and job performance among radiographers?
5. What are the demographic factors that could influence the relationship between emotional intelligence, job performance, and job satisfaction.

1.8 Hypotheses of the Study

Based on the objectives and research questions, the following hypotheses will be tested:

1. There is a significant positive relationship between emotional intelligence and job performance of radiographers in Nigeria.
2. There is a significant positive relationship between emotional intelligence and job satisfaction among radiographers in Nigeria.
3. Job satisfaction positively influences the job performance of Radiographers
4. Job satisfaction significantly mediates the relationship between emotional intelligence and job performance among radiographers in Nigeria.

1.9 Scope of the Study

This study was carried out between December 2023 and June 2025. Radiographers in Nigeria constituted the focus of the study. The Radiographers' EI, job performance, and the role job satisfaction plays in the relationship were assessed.

1.10 Definition of Terms

Emotions: A person's internal state of being and involuntary physiological response to an object or situation, based on or tied to physical state and sensory data.

Intelligence: The ability to acquire and apply knowledge and skills

Performance: The action or process of performing a task or function

Satisfaction: Fulfilment of one's wishes, expectations, or needs, or the pleasure derived from this.

Radiographer: A healthcare professional trained to perform imaging examinations, such as X-rays, MRIs, and CT scans, to assist in diagnosing and patients' treatment.

CHAPTER TWO

LITERATURE REVIEW

2.1 CONCEPTUAL REVIEW

Emotional intelligence has increasingly gained popularity as a trait to success in professions. Emotional intelligence is the ability to monitor one's own and others feeling and emotions to discriminate among them and to use this information to guide one's thinking and actions. It accounts for 58% of performances in all types of jobs. Research has shown that 90% of top performers are high in EI (Scott, 2013).

Emotional intelligence is a “master aptitude, a capacity that profoundly affects all other abilities, either facilitating or interfering with them”. It is related to interpersonal and communication skills and is important in assessment and training of medical undergraduates (Fletcher et al., 2009). Some psychologists and experts suggest that emotional quotient can be more important than intelligent quotient (IQ), Hence much importance is being attached to emotional intelligence. The ability to express and control one's emotions is essential, but so also is the ability to understand, interpret, and respond to the emotions of others. Self-awareness, self-management, motivation, empathy and social skills are important components of emotional intelligence (Petrides, Pita, and Kokkinaki, 2007). While the assessment of constructs within the emotional intelligence paradigm have shown significant utility and predictive validity in applied settings (Spencer and Spencer, 1993), claims of the relative importance of EI compared to traditional forms of intelligence needs further empirical investigation to better determine the relative contribution of each in the prediction of specific criterion (Goleman and Boyatzis, 2000).

2.1.1 CONCEPT OF EMOTIONAL INTELLIGENCE

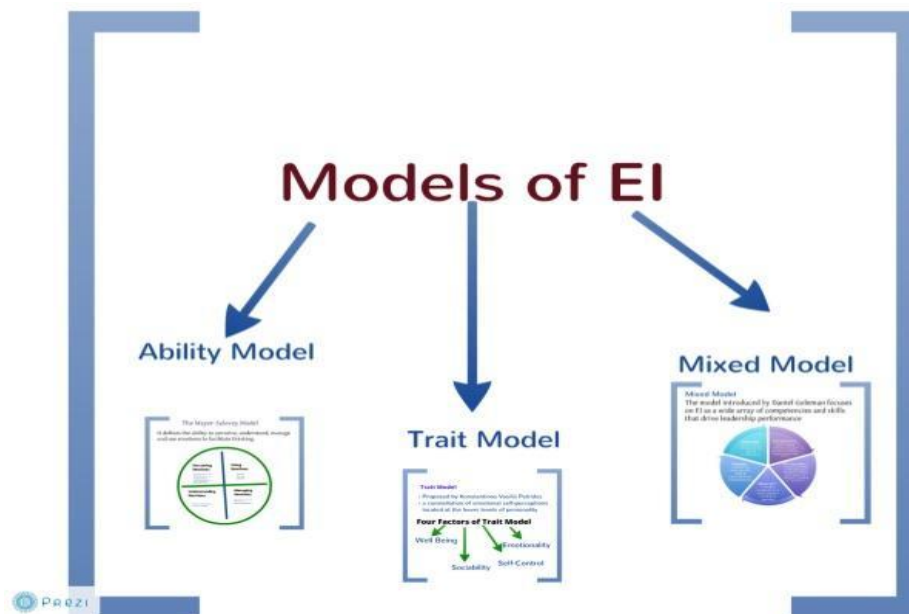
The concept of emotional intelligence was described as the ability of a person to cope with one's emotions, for the first time in 1990, by two physiologist named Peter Salovey and John

Mayer (Wong and law, 2002). Different authors and authorities have variously defined emotional intelligence. Salovey and Mayer (1990) defined emotional intelligence as the ability to monitor own and other people's feelings and emotions, to discriminate among them and to use this to guide thinking and action. Bar-on (2006) viewed emotional intelligence as that which involves understanding oneself and others effectively. He argued that emotional intelligence develops over time and can be improved upon through training, programming and therapy. Goleman (1998) argued that emotional intelligence focuses on personalities, such as initiative and empathy, adaptability and persuasiveness. Goleman saw emotional intelligence as consisting of five parts: knowing emotions (self-awareness), managing them, motivating oneself, recognising emotions in others (empathy), and handling relationships. However, he argued that intelligent quotient (IQ) contributes only 20% to success in life while factors such as emotional intelligence, luck, social class among others contribute the rest. Mayer and Mitchell (1998) viewed emotional intelligence as a member of a class of intelligences including the social, practical and personal intelligences. Thayer (1996) viewed emotional intelligence as a potential that guides relationships with self and others. He noted that difficulty to manage relationships sabotage more businesses than anything else.

2.1.2 MODELS OF EMOTIONAL INTELLIGENCE

Emotional intelligence can be conceptualized in different ways and there are three models of EI. They include ability model of emotional intelligence, trait model of emotional intelligence, and the mixed model of emotional intelligence (Bar-on., 2006; Petrides, Adrian, Furhan, and Konstantin, 2001; Mayer, Caruso and Salovey, 1999).

Fig. 1: models of emotional intelligence



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The ability model as conceived by Salovey and Mayer (1990) focuses on the individuals' ability to process emotional information and use it to navigate the social environment. It is seen to manifest itself in certain adaptive behaviour that includes four types of ability namely:

- i. The perceiving emotion: this the ability to detect and decipher emotion in faces
- ii. Using emotion: this is the ability to harness emotion to facilitate various cognitive activities
- iii. Understanding emotions: this is the ability to comprehend emotional language and to appreciate complicated relationship among emotions. Understanding emotion is the capacity to analyse emotions, appreciate their probable trend overtime, and understand their outcomes (Frijda, 1998).
- iv. The management of emotion involves the rest of personality. That is, emotions are managed in the context of the individual's goal, self-knowledge and social awareness (Parrott, 2002).

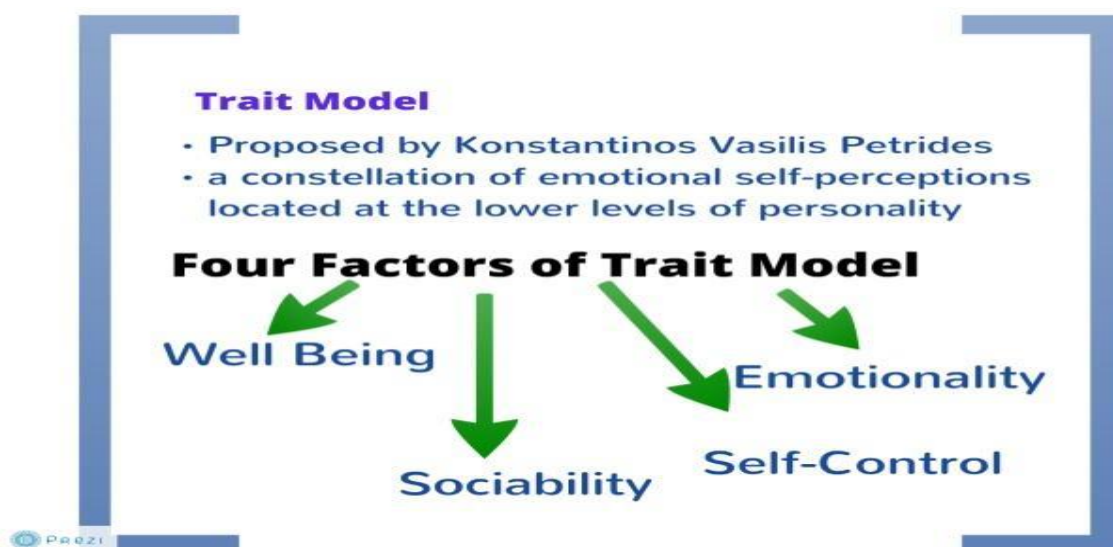


Fig. 2: Salovey and Mayer's ability model of emotional intelligence

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The trait model encompasses behavioural dispositions and self-perceived abilities. The trait is a constellation of emotion-related self-perceptions located at the lower levels of personality (Petrides, Pita, and kokkinaki, 2007). The model shows how these traits predict numerous outcomes such as life satisfaction, coping strategies and rumination much better than a host of other variables. This definition comprises behavioural dispositions and self-perceived abilities which are measured by self-report.

Fig. 3: Petrides et al trait model of emotional intelligence



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The mixed model defines EI as an army of skills and characteristics that drive leadership performance as proposed by Goleman, 1998. It has four main constructs.

- i. Self-awareness: this is the ability to read one's emotions, recognize their impact as well as to use gut feelings to guide decision.
- ii. Self-management: this involves controlling one's emotions and impulses and adapting to changing circumstances.
- iii. Social awareness: this is the ability to sense, understand and react to others' emotions.
- iv. Relationship management: the ability to inspire, influence and develop others while managing conflict.

Goleman includes a set of emotional competencies within each construct of emotional intelligence. Emotional competencies are not innate talents but rather learned capabilities that must be worked on and can be developed to achieve outstanding performance. Goleman posits that individuals are born with a general emotional intelligence that determines their potential for learning emotional competencies.

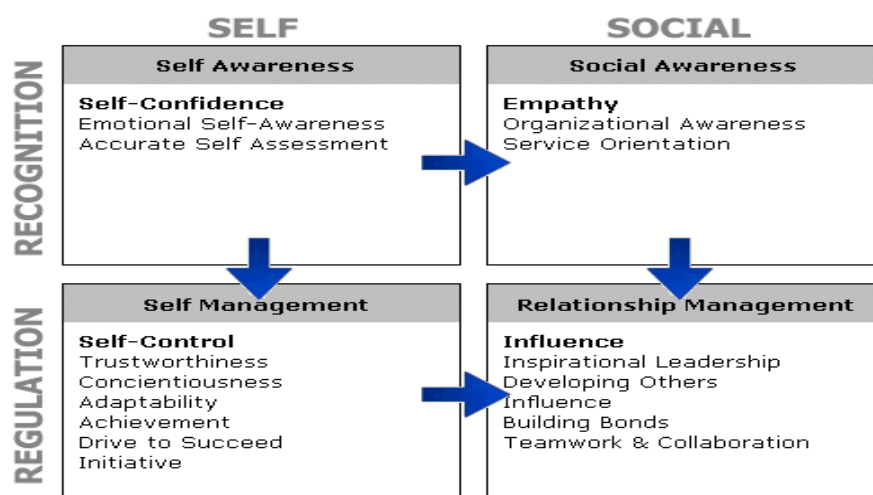


Fig. 4: Goleman's mixed model of Emotional Intelligence

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There is also Bar-on model of emotional social intelligence (ESI) developed by Bar-on (2006) that is used to measure emotional social intelligence based on emotional quotient. Bar-on (2006) views EI as being concerned with effectively understanding oneself and others, relating well with people and adapting to and coping with the immediate environment. Bar-on posits that emotional intelligence develops over time and that it can be improved through training, programming, and therapy (Goleman, 1998). His hypothesis showed that those individuals with higher-than-average emotional intelligence are in general more successful in meeting environmental demands and pressure. He also notes that a deficiency in emotional intelligence can mean a lack of success and the existence of emotional problems.

Problems in coping with one's environment are thought, by bar-on, to be especially common among those individuals lacking in the subscales of reality testing, problem solving, stress tolerance, and impulse control. Generally, bar-on considers emotional intelligence and cognitive intelligence to contribute equally to a person's general intelligence, which then offers an indication of one's potential to succeed in life. This ESI can be measured using Bar-on developed instrument called emotional quotient inventory (EQ-i), which is a measure of the emotionally and socially competent behaviour that provides an estimate of one's social intelligence.

Fig. 5: Bar-On's model of emotional intelligence



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Emotional intelligence has been advocated as a key competency in all clinical settings. Hence, it is important especially for health workers with research evident in the field of Medicine (Arora et al., 2010), Nursing (Bulmer et al., 2009), and diagnostic Radiography and Radiation therapy (Mackay, et al., 2012). This is due to the nature of the work, which is often highly emotive, personal and takes place in the complex context of health and illness service provisions. However, EI has been identified as an important trait for health care professionals and health care students (Lewis et al., 2012).

2.1.3 Measurement of Emotional Intelligence

2.1.3.1 The Mayer-Salovey-Caruso Emotional Intelligence test (MSCEIT)

The MSCEIT is an ability-based test designed to measure the four branches of the EI model of Mayer and Salovey which includes perceiving emotions, facilitating thought, understanding emotions and managing emotions.

MSCEIT was developed from an intelligence-testing tradition formed by the emerging scientific understanding of emotions and their function, and from the first published ability measure specifically intended to assess EI, namely multifactor EI scale (MEIS). MSCEIT consists of 141 items and take 30-45 minutes to complete. MSCEIT provides 15 main scorers: total EI score, two area scores, four branch scores, and eight task scores. in addition to these 15 scores, there are three supplemental scores (Mayer, Salovey and Caruso, 2002).

2.1.3.2 The Bar-ON Emotional Quotient Inventory (EQ-i)

The EQ-I was developed by Bar-On and used to assess the Bar-On model of emotional-social intelligence. The EQ-i is a self-report measure designed to measure several constituents related to EI. The EQ-I consist of 133 items and take approximately 30 minutes to complete. It gives an overall EQ score as well as a score for the following five composite scales which includes intrapersonal, interpersonal, stress management, general mood and adaptability, and 15 subscales (Bar-ON, 2006).

2.1.3.3 The Trait Emotional Intelligence Questionnaire (TEIQue)

The TEIQue was developed by K. V. Petrides. It has four categories which includes TEIQue full form, short form, 360 and 360-short form and the child form which are used to measure four factors of EI: emotionality, sociability, well-being and self-control.

The full form is a self-report inventory that covers the sampling domain of trait EI comprehensively. It comprises 153 items, measuring 15 distinct facets, 4 factors and global trait EI (Petrides, 2009). The short form is a 30-item questionnaire designed to measure global trait EI (trait EI). It is based on the full form of the TEIQue. Two items from each of the 15 facets

of the TEIQue were selected for inclusion, based primary on their correlation with the corresponding total facet score (Cooper and Petrides, 2010; Petrides and Furnham, 2006). The 360 and 360-short forms are used for the collection of other-ratings and are available for both the full- and the short-forms of the TEIQue. They are specifically useful for contrasting self-versus observer-ratings on trait EI (Petrides, 2009).

The TEIQue-child form has been designed with Stella Mavrovich and is based on a sampling domain that has been specifically developed for children aged between 8 and 12 years. It comprises 75 items responded to on a 5-point scale and measures nine distinct facets (Mavrovich, Petrides, Shove and Whitehead, 2008).

2.1.3.4 The Brief emotional intelligence scale (BEIS-10)

This study focuses on this scale to measure the emotional intelligence of respondents. The BEIS-10 is based on Salovey and Mayer's (1990) theoretical framework which posits that emotionally intelligent individuals can accurately perceive emotions (both in themselves and others), use emotions to facilitate thinking and problem solving, understand the meaning of emotions, and manage emotions effectively. The Brief Emotional Intelligence Scale (BEIS-10) is a 10-item self-report measure designed to assess emotional intelligence (EI) in adults. The BEIS-10 was developed by Davies et al. (2010) as a shortened version of the 33-item Emotional Intelligence Scale (EIS; Schutte et al., 1998). EI develops over time and represents a distinct type of intelligence that contributes to more adaptive psychological functioning. The BEIS-10 measures five distinct EI dimensions:

- I. Appraisal of Own Emotions, which assess an individual's ability to recognise and identify their own emotional states.
- II. Appraisal of Others' Emotions, which measures the capacity to interpret and understand emotions in others through verbal and nonverbal cues.

- III. Regulation of Own Emotions that evaluates an individual's perceived ability to control and manage their emotional responses.
- IV. Regulation of Others' Emotions – assessing perceived ability to influence and manage the emotional states of others.
- V. Utilisation of Emotions, which measures how effectively individuals can use emotional states to facilitate problem-solving and creativity.

The BEIS-10's development addresses a significant need in clinical practice for a brief, theoretically-sound measure of EI that can inform case conceptualisation, treatment planning and approach to building the therapeutic relationship. Its structure permits examination of both overall EI and specific EI components, enabling clinicians to develop more targeted and effective interventions based on their clients' specific emotional processing strengths and challenges. For clinicians, assessing EI can provide valuable insights into client outcomes across multiple domains. Meta-analytic studies have demonstrated the predictive utility of EI across both health-related outcomes (including physical and mental health; Schutte et al., 2007) and performance-related variables (such as academic achievement and occupational performance; Van Rooy and Viswesvaran, 2004). This evidence suggests that understanding a client's EI profile can help inform interventions targeting both wellbeing and performance enhancement.

Research has found many implications of EI in different aspects of everyday life. EI was found to have predictive power over physical health outcomes (Salovey, 2001; Lam and Kirby 2002; Zeidner et al. 2002; Schutte, Malouff, Thorsteinsson, Bhullar, and Rooke, 2007), mental health (Zeidner et al. 2002), deviant and risky behaviours (Trinidad and Johnson, 2002; cited in Mayer and Salovey, 2008), intimate relationships (Fitness, 2001), pro-social behaviour (Lopes et al., 2006); academic achievement (Elias, Zins, Weissberg, Frey, Greenberg, and Haynes, 1997;

Offermann, 2004; Ratnaprabha and Shandbad, 2013), and stress management (Gohm, Corserand, and Dalsky, 2005). EI has been found to play a major role in affecting different factors relevant to organizational performance. Recent studies have found an effect of EI in predicting workplace stress levels (Nikolaou and Tsaousis, 2002; Singh and Sharma, 2012), leadership (Gardner and Stough, 2002), organizational citizenship behaviour (Abraham, 1999; Turnipseed and Vandewaa, 2012), managerial effectiveness (Srivastava and Nair, 2010), work effectiveness (Othman, Abdullah, and Ahmad, 2009), job commitment (Nikolaou and Tsaousis, 2002), JP (Abraham, 1999; Lam and Kirby 2002; Lopes et al. 2006; Sy, Tram, and O'Hara, 2006; Shooshtarian et al. 2013), and JS (Lopes et al. 2006; Sy et al. 2006; Ajeya and Indoo, 2012).

2.1.4 Rationale for introduction of Emotional Intelligence in Healthcare Workspace

The rationale for introducing Emotional Intelligence (EI) in the healthcare workplace is rooted in its potential to improve interpersonal relationships, enhance patient care, reduce burnout, and foster more effective teamwork. As emotional intelligence is the ability to perceive emotion, understand emotions, manage emotions, and regulate emotions in oneself and others, hence it plays a crucial role in high-stress environments like healthcare.

According to Freshwater and Stickley (2004), healthcare professionals with high emotional intelligence are better able to empathize with patients, communicate effectively, and manage sensitive situations which can lead to improved patient satisfaction and outcomes. Also, reduction of burnout and improved Resilience among healthcare workers as they face emotionally taxing situations as stated by Codier et al. (2008). Thus, emotional intelligence helps to manage stress, maintain well-being, build resilience and thus reduce the risk of burnout. Goleman, D. (1998) noted that EI facilitates better teamwork through improved communication, conflict resolution, and collaboration among multidisciplinary teams. It also

supports effective leadership by helping leaders understand and respond to the emotional dynamics of their teams.

The introduction of emotional intelligence into healthcare offers great benefits across multiple levels of practice via improving individual coping mechanisms to enhancing patient satisfaction and team dynamics. Thus, EI is a vital component in building a more resilient, compassionate, and effective healthcare system, foster stronger relationships, enhance overall organizational effectiveness and improve employee performance.

2.1.5 Concepts of job performance

Job performance is the degree to which the employee performs his / her job within the rules determined by the institution and shows the behaviours expected from him. (Al- Makhaita, Sabra and Hafez, 2014; Köroğlu, Kaba, and Öztürk, 2021). Job performance is generally considered in two dimensions, task performance and contextual performance (Borman and Motowidlo, 1993). Task performance is the behaviours that contribute to the achievement of the goals set in the job descriptions of the employees or the fulfilment of the requirements of the job on a personal level (Wang and Netemeyer, 2002; Avey et al. 2011; Harmancı Seren et al., 2018), while contextual performance, on the other hand, focuses on the behaviours of the employee that contribute to the effective functioning of the organization in addition to the task performance, and is expressed as the positive behaviours of the employees that are not in the job descriptions but supported by the institution (Guo and Ling, 2020; Aksoy and Çiçek, 2021; Elsner, 2021). The importance of job performance, which has many effects on the organization and employees, has increased with modern management approaches that focus on people. In addition to ensuring that individuals demonstrate high job performance in organizations, numerous theoretical and practical studies have been carried out to understand the concept of job performance, to reveal the elements affecting job performance with its predecessors and

successors, to develop and sustain the culture of high job performance, to determine and discuss its effects (Motowidlo, 2003; Halbesleben and; Bowler, 2007; Gilboa et al. 2008; Schat and Frone, 2011; Wang et al. 2015; Kumar et al. 2021; Nye et al. 2022).

2.1.6 Dimensionality of Job Performance

Following the review by Campbell and Wiernik (2015), job performance is a construct that comprises behaviours under workers' control that contribute to organizational goals. These authors emphasize that performance is a set of behaviours, not the variables that determine these behaviours or their outcomes. The definition is quite open because it is the only way to describe a phenomenon that varies substantially across jobs (Aguinis, 2013) and time

(Sackett and Lievens, 2008). However, there is consensus regarding the multidimensional nature of performance (Dalal, Baysinger, Brummel, and Lebreton, 2012).

Although different dimensions have been proposed, such as safety performance (Burke, Sarpy, Tesluk, and Smith-Crowe, 2002) and adaptive performance (Pulakos, Arad, Donovan, and Plamondon, 2000), there are three major domains of job performance (Sackett and Lievens, 2008): task performance, contextual performance, and counterproductive work behaviour. Together, these dimensions provide a relatively comprehensive and parsimonious approach to overall job performance (Dalal et al. 2012).

2.1.7 The Measure of Job Performance

Being able to measure performance with adequate instruments is as important as describing it. From our point of view, this is related to at least two issues: variability across raters and the degree of job-specificity needed. Regarding ratters, most researchers and practitioners trust job performance scales, but the difference lies in “who” completes them: supervisors, peers, subordinates, or the workers themselves. The fact that job performance scores vary according to the ratter is undisputable (Murphy, 2008). In Woehr's (2008) words, “the lack of agreement

across sources may reflect true differences resulting from differences in perspectives or opportunities to observe performance.” Multi-rater assessments may help to understand performance, but this cannot be simply resolved by pooling samples (Adler et al. 2016).

In consequence, researchers agreed that different raters provide different perspectives of workers’ performance, and the use of one or another rater depends on researchers’ purposes (Scullen, Mount, and Goff, 2000). Self-evaluations tend to be more favourable than other evaluations (DeNisi and Murphy, 2017), making them less frequent in applied contexts.

Nevertheless, self-reports have some advantages that should be recognized (Koopmans, Bernards, Hildebrandt, and van Buuren, 2013) namely: (1) they allow measuring job performance in occupations where other measures are difficult to obtain (e.g., high-complexity jobs); (2) unlike the remaining stakeholders, employees have the opportunity to observe all their own behaviours; (3) peers and managers rate performance considering their general impression of the employee (i.e., halo effect); and (4) they are easy to collect and reduce problems with missing data and confidentiality problems.

Thus, the use of self-report measures of performance is still useful. The second issue is the level of specificity needed. More than sixty years ago, Cronbach and Gleser (1957) brought up the debate about the use of general or specific measures (or broadness vs. narrowness), which has been called the bandwidth-fidelity dilemma. As Judge and Kammeyer-Mueller (2012) state, it makes “little sense to use a specific measure of a predictor to predict a general behaviour” (p. 168). Although the dilemma has been cantered on the level of specificity that predictors need to approach the criterion (e.g., Bragg & Bowling, 2018; Salgado et al. 2015), we want to point out the stress on the latter (in our case, job performance). Job performance can be operationalized in very different ways depending on our purposes, ranging from broad descriptions of behaviours (e.g., demonstrating effort, industriousness, adaptability) to narrow

ones (e.g., written and oral communications, attendance, adherence to rules). As an example, the meta-analysis of Salgado et al. (2015) found 10 different job-performance measures, each one with its own degree of specificity, whilst the theoretical review developed by Koopmans et al. (2011) found 17 generic frameworks and 18 job-specific frameworks of job performance. This situation confines researchers to studying situations and multiplies the number of measures of job performance, hindering the generalization of their findings (Viswesvaran and Ones, 2017). According to the review performed by Koopmans, Bernaards, Hildebrandt, De Vet, and Van Der Beek (2014), existing scales of task performance, contextual performance, and counterproductive work behaviour show several limitations: (1) none of them measure all of 197 Assessing Job Performance Using Brief Self-report Scales the main dimensions of individual work performance together; thus, they do not measure the full range of individual work performance.

(2) the joint use of scales for different dimensions can include antithetical items, creating an overlap between these scales; and (3) none of the scales seem suitable for generic use, which might help to overcome the generalization problems. These limitations are especially noteworthy in non-Anglo-Saxon countries, where the available scales are considerably fewer. For example, in Spain, the available job performance scales suitable for overall working population (i.e., published in peer-review journals, with evidence of reliability and validity in workers of different occupations and sectors, with items included in the paper or available upon request from the research team) are scarce. Among the exceptions, we can mention two scales for contextual performance (i.e., Dávila and Finkelstein, 2010; Díaz-Vilela, Díaz-Cabrera, Isla-Díaz, Hernández-Fernaudo, and Rosales-Sánchez, 2012), and one for counterproductive behaviours (i.e., Fernández del Río et al., 2018) Summarizing the already outlined issues, to advance research, it seems interesting to have an instrument that measures job performances and that: (1) is brief, saving time in data collection (DeNisi and Murphy, 2017); (2) is a self-

report and generic, allowing its use in many different contexts and jobs (Koopmans, Bernaards, Hildebrandt, van Buuren et al. 2013); and (3) comprises at least the main dimensions of job performance, avoiding the problems related to the joint use of different performance scales (Koopmans et al. 2014). The Individual Work Performance Questionnaire (IWPQ) meets all these criteria.

2.1.7.1 The Individual Work Performance Questionnaire

The Individual Work Performance Questionnaire (Koopmans, 2015) is an 18-item scale developed in The Netherlands to measure the three main dimensions of job performance: task performance, contextual performance, and counterproductive work behaviour.

All items have a recall period of three months and a 5-point rating scale (0 = seldom to 4=always for task and contextual performance; and 0 = never to 4 = often for counterproductive work behaviour). A mean score for each IWPQ scale can be calculated by adding the item scores and dividing their sum by the number of items in the scale.

The operationalization of the IWPQ scales was based on a systematic review of the occupational health, work and organizational psychology, and management and economics literature (Koopmans et al., 2011) and a study by Koopmans, Bernaards, Hildebrandt, De Vet, and van der Beek (2013). In the latter study, Koopmans, Bernaards, Hildebrandt, De Vet et al. (2013) identified all possible indicators of job performance dimensions from the literature, existing questionnaires, and expert interviews. It yielded 317 potential items belonging to four dimensions of job performance: task performance, contextual performance, counterproductive behaviours, and adaptive performance. The items were reduced to 128 after removing indicators that overlapped among dimensions and variables that were determinants of job performance and not of performance itself (e.g., motivation). Subsequently, agreement among 253 experts from different professional backgrounds and countries was reached on the most relevant, generic indicators per scale. It is remarkable that experts came from different

professions (44.7% were researchers, 21.3% were human resource managers, 19.0% were managers, and 15.0% were occupational health professionals), and mostly with six or more years of experience (77%). This study led to developing an initial version of the IWPQ (Koopmans, Bernaards, Hildebrandt, van Buuren et al., 2013), aimed to be used on generic working population, avoiding antithetical items among dimensions. For this purpose, Koopmans, Bernaards, Hildebrandt, van Buuren et al. (2013) developed a pilot test with researchers (N = 54) and a field test with Dutch workers from different occupational sectors (N = 1,181), including blue, pink, and white-collar jobs. In the pilot test, researchers were asked whether they thought the questionnaire measured individual job performance, whether any questions were redundant, and whether any important questions were missing. In the field test, workers were asked whether the items were applicable to their occupation. As result, the authors reached a generic scale with three dimensions: task performance, contextual performance, and counterproductive behaviours. Although IWPQ initially considered adaptive performance, the items related to this dimension were included in contextual performance. This version of IWPQ has been adapted to American English language in a further study (Koopmans et al., 2016) in which they asked American workers (N = 40) whether they thought the questionnaire measured individual work performance, and whether all relevant facets of individual work performance were assessed. Based on the studies (Koopmans, Bernaards, Hildebrandt, van Buuren et al., 2013; Koopmans et al., 2016), the content validity of the IWPQ was judged to be good. IWPQ scores showed sufficient convergent validity and very good discriminative validity in a sample of 1,424 Dutch workers from different occupational sectors (Koopmans, et al. 2014). Although the IWPQ seems adequate, one more thing is missing: further evidence of convergent validity. It is true that Koopmans (2015) provides evidence of the relationship of IWPQ with variables related to job performance such as presentism, work engagement, or job satisfaction, but we consider that is necessary for the IWPQ to demonstrate

its relationship with existing measures of job performance and with predictors such as personality, whose relationship with performance has been highlighted in previous studies (e.g., Barrick and Mount, 1991).

2.1.7.2 The job performance scale

The Job Performance Scale (JPS) by Çalışkan and Köroğlu is a tool used to measure job performance, specifically focusing on task and contextual performance. It is a 5-point Likert scale with 11 items, where 1 represents strongly disagree; and 5 represents strongly agree. The scale was developed to address a need for a reliable and valid instrument to assess employee performance in research and organizational settings (Çalışkan and Köroğlu, 2022) The JPS has demonstrated high reliability, with an overall Cronbach's alpha coefficient of 0.914, indicating that the scale consistently measures the intended construct. The JPS is intended to be a practical tool for researchers and organizations to evaluate and understand employee performance, potentially informing development and improvement strategies. It is reliable, is brief, saving time in data collection, a self-report, and allowing its use in many different contexts and jobs (Çalışkan and Köroğlu, 2022). For this study, this JPS survey was adopted.

2.1.8 Job Satisfaction

Job satisfaction involves attitudes and feelings. According to Kreitner, Robert and Angelo (2001) job satisfaction are an effectiveness or emotional response to various aspects of work, and Several researchers has defined job satisfaction. According to Collin's dictionary, "satisfaction is the pleasure that you feel when you do Locke defines job satisfaction as, "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences (Locke, 1976). Paul E. Spector says that job satisfaction is "simply how people feel about their jobs and different aspects of their jobs. It is the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs" (Spector, 1997). Statt, finds job satisfaction as "the extent to which a worker is content with the rewards he or she gets out of their job,

particularly in terms of intrinsic motivation” (Statt, 2004). Job satisfaction is also referred to as “the attitudes and feelings people have about their work. If they experience positive and favourable attitudes towards the job, they are said to be experiencing job satisfaction. On the other hand, negative and unfavourable attitudes towards the job indicate job dissatisfaction” (Armstrong, 2006). Newstorm defines Job Satisfaction as “a set of favourable or unfavourable feelings and emotions with which employees view their work” (Newstorm, 2017).

Job satisfaction essentially deals with feelings and beliefs that people have about their current job and its different aspects, the role they perform there, and the rewards they get (Belur and Dipalee, 2024). Job Satisfaction has 3 components, namely:

- 1) Value. Where someone intentionally or unintentionally wants to get value or benefit from the work itself.
- 2) Importance of Value. Humans are distinguished not only by the values they believe in, but also from the burden or effort that is put into fulfilling these values. This difference affects the level of one’s satisfaction.
- 3) Perception. Satisfaction reflects our perception of the current situation and the values we believe in.

2.1.8.1 Components of Job Satisfaction

According to Kreitner, Robert and Angelo (2001), there are five factors that can affect job satisfaction namely: Need fulfilment: Job Satisfaction is determined by the level of job characteristics providing opportunities for individuals to meet their needs. That is, it is influenced by the extent to which a job allows an individual to meet their personal needs. Hence when one feels that their job satisfies their basic and psychological needs, the more the satisfaction towards the job. Discrepancies: Satisfaction is a result of meeting expectations. The fulfilment of expectations reflects the difference between what is expected and what the

individual gets from his job. When expectations are greater than what is accepted, people will be dissatisfied. Conversely, individuals will be satisfied if they receive benefits above expectations. Value attainment: this emphasizes on the fact that one's job should provide opportunities to fulfil personal values. That is Satisfaction is the result of the perception that work provides the fulfilment of important individual work values. Hence when a job aligns with an individual's values, it leads to greater satisfaction.

Equity: this shows satisfaction as a function of how fairly individuals are treated in the workplace. Perceived fairness in compensation, recognition, and treatment leads to a higher job satisfaction.

Genetic components: this factor of Job satisfaction is a function of personal traits and genetic factors. This implies that differences in individual characteristics have an important meaning to explain job satisfaction in addition to the characteristics of the work environment. Hence, individuals may naturally have a more positive outlook, that influences one's overall job satisfaction.

2.1.8.2 Measurement of job satisfaction

In 1963, David J. Weiss and his colleagues at the University of Minnesota developed a 100-item, long form questionnaire they decided to call the Minnesota Satisfaction Questionnaire; to measure job satisfaction in individuals. In 1967, From these 100 items, 20 items were extracted, making this the shorter MSQ. This questionnaire consists of a series of statements related to various aspects of one's job, such as ability utilization, achievement, activity, advancement, authority, company policies, compensation, co-workers, creativity, independence, moral values, recognition, responsibility, security, social status, social service, supervision (human relations), supervision (technical), variety, and working conditions (Weiss, Dawis, England, and Lofquist, 1967).

Paul E. Spector, in 1997 came up with the widely used Job Satisfaction Survey (JSS) to measure the major dimensions of job satisfaction in human service, public, and non-profit organizations. He has copyrighted “nine subscales to represent the satisfaction domain with five extrinsic (pay, promotion, supervision, fringe benefits, and operating conditions) and four intrinsic (contingent rewards, co-workers, nature of work, and communication) subscales, as well as total overall satisfaction. Each subscale consists of four items; the scale used includes six choices per item ranging from ‘strongly disagree to strongly agree’”.

2.1.8.3 Importance of job satisfaction

Several authors have outlined the importance of job satisfaction to both individuals and organisation. Locke (1969) suggested that job satisfaction can be of great importance to an organization since it is associated with less effort, acceptance of the existing policies, the best possible salaries, working hours and excellent service delivery which are viewed as important pillars to organizational success. Spector (1985) suggested that job satisfaction data helps evaluate the emotional wellness and mental fitness of employees and that an organization can use the information to improve departmental policies and practices where dissatisfaction is expressed, and as well Paul and Phua (2011) stressed that when an employee is satisfied with their job; such an employee will be more productive and creative and are more likely to be retained by the organization.

2.1.9 Job Satisfaction and Performance Relationship

The relationship between job satisfaction and performance has been critically assessed in a variety of organizational settings. Results of these studies have been mixed. Cummings (1970) identified three major points of view concerning this relationship. Satisfaction causes performance, performance causes satisfaction and rewards cause both performance and satisfaction. All these three views are supported by various research. Mirvis and Lawer (1977)

produced conclusive findings about the relationship between job satisfaction and performance. In attempting to measure the performance of bank tellers in terms of cash shortages, their proposed arguments are satisfied tellers were less likely to show shortages and less likely to leave their jobs. Kornhanuser and Sharp (1976) have conducted more than thirty studies to identify the relationship between satisfaction and performance in industrial sector. Many of the studies have found that a positive relationship existed between job satisfaction and performance. Katzell, Barret and Porker (1952) demonstrated that job satisfaction was associated neither with turnover nor with quality of production. Smith and Cranny (1968) reviewed the literature and concluded that satisfaction is associated with performance as well as effort, commitment and intention. In the western electric studies (1966) the evidence from the Relay Assembly test room showed a dramatic tendency for increased employee productivity to be associate of with an increase in job satisfaction. Porter and Lowler (1969) suggested that satisfaction will affect a worker's effort, arguing that increased satisfaction from performance possibility helps to increase expectations of performance leading to rewards, Carroll, Keflas and Watson (1964) found that satisfaction and productivity are crucial relationship in which each affects the other. They suggest that performance leads to more effort because of high perceived expectancy. The effort leads to effective performance, which again leads to satisfaction in crucial relationship. David, Joseph and William (1970) suggest that the type of reward system under which workers perform strongly influence the satisfaction- performance relationship. job satisfaction of an employee is influenced by various job-related factors, and they are derived from job context and job content factors. Job content factors are related with intrinsic rewards and job context factors are related with extrinsic rewards. A satisfied employee can motivate to extend more effort to improve the performance.

2.1.10 Emotional Intelligence, Job Satisfaction, and Job Performance

Different factors have been found to contribute to a better or worse individual performance among employees in organizations. These factors range from personal issues, personal life to organization culture, job content and tasks, manager's attitude financial reward (Saeed, Mussawar, Rab Nawaz Lodhi, Iqbal, and Nayaband Yaseen, 2013). Other factors include work engagement, organizational justice, self-efficacy, and work engagement (Korkaew, 2012). Also, JP levels can be affected by the changes in a person's psychological state and mood (Zickar & Slaughter, 1999; Boon, 2012). Another point of view is that employees' promotions, salary and growth also depend on their JP. For employees to develop and get promoted they must perform at their very best; so, a good salary could lead to low performance, but it could also lead to improved performance, which in its turn leads to an increase in salary. A meta-analysis of the EI-JP relationship (O'Boyle & Ernst, 2011) found significant effects of EI on JP with the ability to predict an average of 14% of the change in JP. The level of JS is a strong indicator of withdrawal behavior, intention to quit, turnover and organizational commitment (e. G. Shields & Ward, 2001; Böckerman and Ilmakunnas, 2009). The relationship between JS and JP has been heavily debated (Judge, Bono, Thoreson, & Patton, 2001). This discussion intensified in the late seventies (Christen, Iyer, & Soberman, 2006) and it was logically assumed that the more employees are satisfied, the better their performance is. Some studies suggest that JS has a significant impact on the performance of an individual in a company (Judge et al., 2001). Other studies propose that there are variables acting as mediating or moderating factors between JS and JP, concluding that positive emotions, for instance, would generate higher performance (Vandenabeele, 2009). Similarly, a meta-analysis conducted on 312 samples representing 54,417 respondents (Judge et al., 2001) found an average correlation between JS and JP of $r=0.3$. At the same time, Sy et al. (2006) studied the relation among 187 employees from food industry and found that employees' EI

was positively associated with JS and performance. Meanwhile, others believe that the relationship between the JS and JP is weak and non-existent (Locke, 1976; Spector, 1985). The conclusion drawn from Jae Vanden Berghe's study in 2011 was that generally there is only a modest to weak correlation between JS and JP and that the causal direction is inconclusive. There is insufficient research on the relationship between EI, JS, and JP thus this study hopes to identify the relationship that exists between these constructs in the Nigerian radiographer contest.

2.2 THEORETICAL REVIEW

2.2.1 THEORIES OF INTELLIGENCE

About a century ago, Howard Gardner challenged the traditional notion of IQ in his day by introducing the world to new intelligences proposing that individuals have many intelligences in a variety of abilities. His famous book titled *frame of mind: The Theories of Multiple Intelligences* (Gardner, 1983) outlined seven new intelligences with highly adaptive properties. Two aspects of this theory; interpersonal and intrapersonal intelligences, correspond to some aspects of emotional intelligence abilities which is being studied in this work.

2.2.2 Howard's Theory of Intelligence

Howard Gardner proposed a theory of multiple intelligence. Howard Gardner's (1983) original theory of multiple intelligence comprised seven types of intelligence which include:

Linguistic intelligence: this is the ability to learn languages and to use one's skill in using language effectively to accomplish specific goal. Individuals high in linguistic intelligence are often writers, poets, and layers.

Logical-mathematical intelligence: this is the ability to analyse problems logically. It includes skill at completing mathematical problems as the ability to investigate hypothesis scientifically.

Spatial intelligence: spatial intelligence refers to an individual's ability to represent the spatial world in his or her own mind. It includes skill at recognising and using patterns.

Musical intelligence: this includes abilities in composing and performing music and in recognising and composing musical pitches, tones and rhythms. It also includes skills in recognising and appreciating musical patterns.

Bodily-kinaesthetic intelligence: this refers to an individual's ability to use mental abilities to coordinate bodily movements.

According to Gardner, mental and physical abilities are related (Gardner, 1983). Interpersonal intelligence: this is concerned with an individual's ability to understand the intentions, motivations, and desires of other people. Such skills are beneficial in working and getting along with others. Those that are high in interpersonal intelligence are often educators, religious and political leaders, and social workers. Intrapersonal intelligence refers to the capacity to understand oneself, one's thought, feelings, fears, desires and motivations. It includes the ability to use this knowledge towards successful outcomes. Writers and artists often demonstrate intrapersonal intelligence in their work. Gardner's 1983 theory has received strong positive responses from educators, who readily adapted his work to applied settings in the classroom. Since Gardner's original listing of the seven intelligence, other possible forms of intelligence have been discussed and considered for inclusion. These forms of intelligence include naturalist intelligence, spiritual intelligence, existential intelligence and moral intelligence (Gardner, 1999).

2.2.3 Sternberg's Theory of Intelligence

Sternberg (1985) holds that conventional measures of intelligence, such as SATs and IQ tests, fail to identify the high abilities many individuals possess. He recognises that some intelligence

abilities not measured by traditional means may be beneficial to one's academic, professional, and personal success. From this perspective, traditional educational methods can be problematic for their tendency to favour students with strong memory and analytical skills (Sternberg, 1985). Oftentimes, students with strong creative and practical skills are disadvantaged due to teaching methods that do not allow them to demonstrate their strengths and skills (Sternberg, 1985). Sternberg also criticises traditional methods for a tendency to favour students of higher socio-economic backgrounds. And his research led to the development of the triarchic theory of human intelligence and the theory of successful intelligence.

2.2.4 Sternbergs Triarchic Theory of Human Intelligence

This theory includes three facets: Analytical intelligence (componential): which is a measure of one's ability to solve academic problems, such as analogies and puzzles. It is seen as a reflection of how the individual relates to the one's internal world.

Creative intelligence (experiential): which reflects own individuals' ability to connect their internal world to their external reality. It includes one's ability to use prior knowledge in a new or innovative ways in different circumstances, such as finding a new approach to problems.

Practical intelligence (contextual): which involves one's ability to understand and effectively deal with everyday tasks. It is reflective of how the individual relates to the external world.

2.2.5 Theory of successful intelligence

Sternberg (1999) holds that individuals who excel in all areas of the triarchic intelligence test may be considered to have successful intelligence, which he defines as the ability to achieve success in accordance with one's personal standards and within one's socio-cultural context. Individuals with high levels of successful intelligence tend to be better equipped for success and able to adapt well to their socio-cultural context. Sternberg's (1999) construct of successful

intelligence may be applied to educational settings with the aim of increasing student learning while bridging gaps among socio-economic and ethnically diverse groups.

2.2.6 Bar-On Theory of Emotional-Social Intelligence

The central constituents in the emotional-social intelligence meaning and concept were founded on the works of Darwin, Thorndike, and Sifneo (Bar-On, 2005). Recognizing the various abilities in emotional intelligence, bar-on divided them into five (5) sets which includes:

- Ability to distinguish, recognise and communicate emotions and feelings.
- Ability to deal recognise how others sense and relate with them.
- Ability to deal with and manage emotions
- Ability to transform, adjust and unravel problems of an individual and interpersonal nature, and
- Ability to create positive influences and be self-motivated (Bar-On, 2005).

Thus, emotional-social intelligence is a cross-section of inter-connected emotional and social capabilities, skills and catalyst that establishes how successfully we comprehend and articulate ourselves, recognise others and communicate with them while managing our daily demands (Bar-On, 2005). Consequently, the theoretical framework for Bar-on model and its measurement called the EQ-i are based on these sets of abilities (Hassan et al, 2011).

2.2.7 Trait Model/theory of Emotional Intelligence

The trait emotional intelligence model/theory as propounded by Petrides, Kokkinaki and Pita (2007) encompasses other models such as ability model and mixed model. The ability model of emotional intelligence as propounded by Salovey and Mayer (1990) is an individual variation in the information processing ability of an emotional nature and the ability to relate emotional information to a wider cognition. The mixed model of emotional intelligence by Goleman (1995) is an aggregation of skills and competencies that encourage leadership

performance. This includes self-awareness, self-management, social awareness and relationship management. To Goleman, emotional competencies are learned capabilities not innate talents. Bar-on (2006) also noted that emotional intelligence is an effective understanding of self and others and successful adaptation to the immediate environment. To petrides, Kokkinaki and Pita (2007), the trait model/theory of emotional intelligence is an individual self-perception of the emotional abilities. It is a constellation of emotional self-perception domiciled at the lower levels of personality. It includes behavioural dispositions and self-perceived abilities and competences that may include social competence. The trait emotional intelligence model/theory provides a basis for this study in which emotional intelligence is measured by self-perception.

2.2.8 Theories of job satisfaction and Job Performance

A good number of authors have had interest in the determinants and factors that influence job satisfaction and have outlined some models to explain this. They include the Herzberg's Two Factor Model, Job Characteristic Model, Equity Theory and Job Assessment Model.

Herzberg (1959) 's Two Factor Model of job satisfaction proposes that, to have job satisfaction in an organization, the organization should provide both motivational and hygiene factors respectively. Hygiene factors according to Herzberg, Mausner and Snyderman (1959) are defined as those factors that do not motivate or satisfy but rather prevent dissatisfaction. These factors concerning the model include employee salaries, administration, supervision of employees, organizational policies, and employee status. Herzberg, et al. (1959) defined motivators as those aspects of the job that make people want to perform and provide people with satisfaction.



Fig 6: Herzberg's Two Factor Theory
Source: <https://biz.libretexts.org>

2.2.9 The job characteristic model

The job characteristic model proposes that high work satisfaction as a positive personal and work outcome can be obtained when three critical psychological states are present for a given employee (experienced meaningfulness of the work, experienced responsibility for the outcomes of the work, and knowledge of the results of work activities). All three psychological states must be present for the positive outcomes to be realized. The Job Characteristic Model further proposes that these critical psychological states are created by the presence of five core job dimensions. Experienced meaningfulness of the work is enhanced primarily by three of the core dimensions: skill variety, task identity, and task significance. Skill variety has been defined by Hackman and Oldham (1975) as the degree to which a job requires a variety of different activities in carrying out the work and involves the use of different skills and talents of the individual. Task identity has been defined by Hackman and Oldham (1975) as the degree to which the job requires the completion of a whole and identifiable piece of work that involves

doing a job from the beginning to the end with a visible outcome. Task significance has been defined by Hackman and Oldham (1975) as, the degree to which the job has a substantial impact on the lives or work of people in other departments in the organization or the external environment. Figure 2 also states that experienced responsibility for work outcomes is increased when a job has autonomy. Job autonomy has been defined by Hackman and Oldham (1975) as the degree to which the job gives the employee substantial freedom, independence, and discretion in scheduling the work and in determining the procedures to be used in carrying it out. In addition, knowledge of results is increased when a job is high on feedback. Regarding Figure 3, feedback was defined by Hackman and Oldham (1975) as the degree to which carrying out the work activities required by the job results in the individual obtaining direct and clear information on the results of his performance. Therefore, individual growth need strength is shown in Figure 3 as a moderator of the other theory-specific relationship.

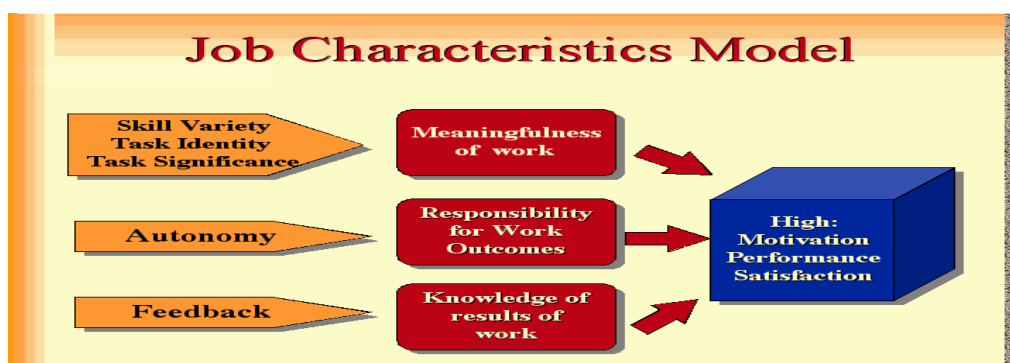


Fig 7: Job characteristic model
<https://www.vskills.in>

2.2.10 Equity theory of job satisfaction

Equity Theory of job satisfaction Another model of job satisfaction is the Equity Theory as depicted in Adams (1965). The Theory stipulates that individual, in a cognitive manner make decisions about the state of their satisfaction. According to this theory, individuals compare the ratio of their inputs and outcomes to the input-outcome ratios of another person. Adams (1965) defined inputs as the qualitative and quantitative contribution of an employee's work. These

inputs include time, effort, hard work, commitment, ability, adaptability, flexibility, tolerance, determination, enthusiasm and personal trust. On the other hand, outputs (outcomes) were defined as the positive and negative consequences that an individual (employee) perceives a participant has incurred because of his/ her relationship with the other. Outputs (outcomes) include job security, esteem, salary, employee benefits, expenses, recognition, reputation, responsibilities and a sense of achievement among others. The Equity Theory of job satisfaction argues that a major input into job performance and satisfaction is the degree of equity or inequality that people perceive in their work situations. Adams' Equity Theory suggested that inequality exists for a person whenever he or she perceives that the ratio of his / her outcomes to inputs and the ratio of another's outcomes to another's inputs are unequal.

2.2.11 Smerek and Petersons' Model for Assessing Job Satisfaction

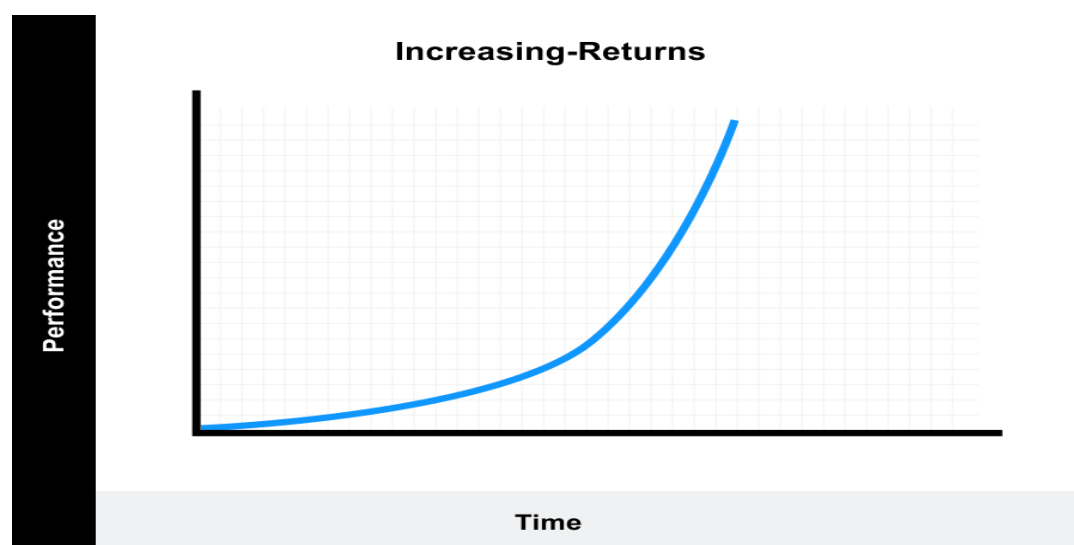
Smerek and Peterson (2007) proposed a model for assessing job satisfaction which proposes that to obtain job satisfaction in an organization, there should be job characteristics as well as a perceived work environment (intrinsic and extrinsic factors). Smerek and Peterson defined job characteristics as the main core dimensions of the job. Job characteristics regarding the model are operationalised in terms of work units such as facilities and operational units, human resource units, financial units and administrative IT, and union as well as non-union units. Smerek and Peterson defined perceived work environment as the surrounding conditions in which an employee operates. It includes a combination of both intrinsic and extrinsic factors. To them, intrinsic factors are "those factors that fulfil an individual's need for psychological growth" p 230. Intrinsic factors regarding the model include employee recognition, the work itself, employee opportunities for advancement, professional growth of employees, employee responsibility, a good feeling about the organization as well as clarity of the organization's mission. Smerek and Peterson (2007) defined hygiene factors (extrinsic) factors as "those factors that merely serve to prevent an individual from feeling bad about work" p 230. Hygiene

factors include effective senior management, effective supervisors at work, a good relationship with co-workers, high satisfaction with salary, employee satisfaction with benefits as well as the presence of core values in an organization. Figure 4 also suggests that there is a significant relationship between personal characteristics and job satisfaction. Smerek and Peterson (2007) defined personal characteristics as assets of individual differences that are affected by the development of an individual. Personal characteristics regarding the model are conceptualized as the gender of respondents, minority- status of the employees, age of respondents as well as length of service of an employee.

2.2.12 Learning curve theory

The learning curve performance management theory states employees learn in a predictable, measurable way over time. It's specifically based on the idea that employees perform better as they gain experience in their jobs. It's generally applicable to any type of job or situation where a manager expects an employee to perform a new task or complete a new project. It's important to note that the learning curve performance management theory doesn't apply to jobs that don't have a learning curve.

Fig. 8 learning curve theory



<https://www.valamis.com>

2.2.13 Maslow's hierarchy of needs

Maslow's hierarchy of needs is a performance management theory that describes how employees are generally motivated to fulfil their needs in order, starting with the most basic and increasing to higher-level needs. The theory states that only once an employee fulfils one need, they can move on to the next. The hierarchy consists of five levels, physiological, safety, love/belonging, esteem and self-actualisation. The first two levels are deficit needs, meaning that if an individual doesn't meet these needs, they become unable to function properly. The other three levels are growth needs, which motivate employees to grow and develop their skills

2.2.14 Expectancy theory

The expectancy performance theory proposed by Vroom (1964) explains why some employees perform better than others. This theory focuses on the beliefs that employees have about their abilities, their behaviour and the outcomes of their actions. It focuses on three factors:

- Expectancy: An employee's belief that if they perform well, positive consequences follow.
- Instrumentality: An employee's belief that positive consequences directly result from their actions, such as the belief that doing good work leads to a raise.
- Valence: An employee's attitude towards the possible outcome, such as if an employee enjoys undertaking more responsibilities.

Fig 9. Vroom's Expectancy theory



<https://slidebazaar.com>

2.2.15 Goal-setting theory

The goal-setting theory is a performance management theory by Locke and Latham (1990) posits that setting specific, challenging, and attainable goals can significantly improve motivation and performance. According to the theory, the process of setting goals directs an individual's attention, effort, and persistence towards the desired outcome that involves identifying specific goals and objectives for employees before setting up a system that tracks their progress towards those goals. Such goals are usually quantitative so the employee can understand exactly how they've progressed towards achieving them so far. The goal-setting theory often applies to organisations that want to improve their employee's productivity levels. It typically works because it gives employees a clear picture of what their manager requires of them and how their manager expects them to complete tasks, which can motivate them to work harder and smarter.

2.3 Empirical review

Emotional intelligence is recognized in many research areas as a critical psychological factor affecting individuals in the workplace, including healthcare workers in all sectors and researchers have done a lot of research to find whether there are, or no correlations between EI and Job Performance and job satisfaction. Alwali and Alwali (2022) found that emotional intelligence is significantly and positively related to job performance among physicians in

Iraq's public hospitals. It implies that employees with greater emotional intelligence can perform their work more effectively compared with lower emotional intelligence.

Sorano- Vázquez et al. (2023) in their study on the mediating role of conflict management in the relationship between emotional intelligence and job satisfaction among 208 nurses using self-reported questionnaires to measure emotional intelligence, conflict management, and job satisfaction found a positive relationship between emotional intelligence and conflict management ($\beta = 0.64, p < 0.001$), as well as a positive relationship between conflict management and job satisfaction was observed ($\beta = 0.37, p < 0.001$). they also found conflict management as a mediator in the relationship between emotional intelligence and job satisfaction ($\beta = 0.77, p = 0.002$).

Baumann et al. (2017) studied the EI and Job performance: mediating role of work-family balance of 233 respondents and result showed a positive significant relationship between emotional intelligence and job performance with significant influence of work-family balance.

The study to identify the effect of information technology leaders' emotional intelligence on subordinate job performance by Donnisha et al, (2012) using a quantitative, correlational approach using—the Emotional Quotient Inventory (EQ-i) and measures for contextual performance quantitative, correlational approach was taken by an online administration of two validated instruments—the Emotional Quotient Inventory (EQ-i) and Van Scotter and Motowidlo's measures for contextual performance. Findings indicated that there was a positive relationship between IT leaders' emotional intelligence scores and subordinates' job performance ratings.

Nwankwo et al. (2013) investigated the relationship between emotional intelligence and job satisfaction among 116 health workers in Enugu, Nigeria using the Minnesota satisfaction questionnaire, emotional intelligence scale, and Maslach Burnout Inventory for data collection.

The findings revealed that there was a significant positive relationship between emotional intelligence and job satisfaction among health workers ($r = .67 < 0.01$). they concluded that as emotional intelligence increases, job satisfaction will increase.

Liu et al. 2024 used a quantitative survey approach to examine the emotional intelligence of 293 university academics and its effects on their work performance from five (5) universities, and the results showed a significant positive correlation between emotional intelligence and job performance. Research indicates that higher levels of emotional intelligence (including self-awareness, emotion regulation, motivation, empathy, and social skills) are associated with better job performance. This relationship is moderated by personal characteristics, organizational support, and cultural context. These findings highlight the importance of incorporating emotional intelligence into educational leadership and continuous professional development (CPD) and induction training programs for academics, not only to facilitate teaching and learning processes but also to enhance the overall educational ecosystem.

Munir and Azam in (2019) in their study on emotional intelligence and employee performance using a longitudinal intervention-based pretest-post-test experimental design where employees were trained to enhance their emotional intelligence which consequently enhanced employee performance. The study was carried out in a three-stage process consisting of pretest, emotional intelligence interventions implementation and post-test. Thirty-six (36) participants with low level of emotional intelligence had joined the study and results of paired sample T-Test showed a significant increase in emotional intelligence scores from pretest stage to post-test with a medium effect size. Results further revealed a significant increase in employee performance scores of the participants after their enhanced level of emotional intelligence.

Sharmin et al, 2024 in their systematic review attempts to promote organizational efficiency by synthesizing scholarly evidence of all scholarly publications published in Scopus between

2014 and 2023 on the association between emotional intelligence (EI) and employee performance. The results indicate that emotional intelligence (EI) has a major impact on employees' performance, influencing both individual opportunities and overall corporate outcomes.

A study by Psilopanagioti et al., (2012) aimed at investigating the relationships, direct and/or indirect, between emotional intelligence, the surface acting component of emotional labour, and job satisfaction in medical staff working in tertiary healthcare using the Wong Law Emotional Intelligence Scale, General Index of Job Satisfaction, and the Dutch Questionnaire on Emotional Labor revealed that emotional intelligence (Use of Emotion dimension) was significantly and positively correlated with job satisfaction ($r=.42, p<.001$) Self-emotion appraisal was found to influence job satisfaction both directly and indirectly through surface acting, while this indirect effect was moderated by gender. Apart from its mediating role, surface acting was also a moderator of the emotional intelligence-job satisfaction relationship.

Rosete (2007) examined 122 public sector employees and concluded that EI correlates with effective business performance, and it delivers intended results. EI also reflects the extent to which employees involve in behaviours that support the goals of the organization, also the employees with low cognitive intelligence show better performance if their EI scores are high as indicated by (Cote & Miners, 2006) in their study of how emotional intelligence and cognitive intelligence are associated with job performance.

Bhore and Dhanawade (2025) in their study to assess nurses' emotional intelligence levels, evaluate their job satisfaction, and determine how emotional intelligence influences workplace satisfaction using the Emotional Intelligence Inventory Scale and the Minnesota Job Satisfaction Questionnaire revealed that Emotional intelligence levels were very high among 77 (77%) nurses, while 63 (63%) were highly satisfied with their jobs. A significant positive

correlation ($r = 0.4059$, $p = 0.000002$) was observed between emotional intelligence and job satisfaction.

Kerr, et al. (2006) studied 1,258 manufacturing employees and found that EI correlated with managerial performance and the ability to perceive and use emotions had the highest correlation with job performance. Lopes et al. (2006) conducted a small study in an insurance company and his result reflected positive relations between high EI scores of the employees and their work performance which further led to raise in salary of the employees.

Al-Hamdan et al. (2017) examined the correlation emotional intelligence and job performance among 184 Jordanian hospital registered nurses in six (6) hospitals using a non-exploratory design and Genos Instrument (EIS) to measure EI while Clinical performance was measured using a self-report measure (JPS). Findings demonstrated significant positive relationships between all subscales of EI and job performance, ranging from $r = .250$, $p = .000$ to $r = .193$, $p = .007$. Regression analysis indicated working in medical-surgical wards, recognizing and expressing emotions scores ($\beta = 0.186$, $p = .048$), and controlling emotions ($\beta = 0.255$, $p = .027$) explained 19.1% of variance in nurses job performance.

Al-Oweidat et al. (2023) in a cross-sectional study examined the relationship between emotional intelligence and organizational commitment among 200 Jordanian Nurses working in Government hospital and employed the EIS and the organizational commitment scale. Participants had high levels of emotional intelligence (M , $SD = 122.3, 14.0$) and moderate levels of organizational commitment (M , $SD = 81.6, 15.7$). Emotional intelligence had a significant, positive relationship with organizational commitment ($r = 0.53$, $p < 0.01$). Male nurses, widowed nurses, and nurses with higher postgraduate qualifications demonstrated significantly higher levels of emotional intelligence and organizational commitment than female nurses, single nurses, and nurses with undergraduate degrees ($p < 0.05$). Cheraghi et al.

(2023) in their study on the relationship between emotional intelligence with job performance and occupational stress in nurses working in Educational and medical centres in Urmia using the EIS, Performance questionnaire, and occupational stress scale. Findings indicated that higher emotional intelligence associated with better job performance and lower occupational stress.

In a study by Alinejad et al. (2023) which studied 621 nurses in Urmia teaching hospital in Iran employing the Nursing Stress Scale, Paterson's Job Performance Questionnaire, Schiering's Emotional Intelligence Standard Questionnaire, and Lennik and Keil's Moral Intelligence Questionnaire and evaluated occupational stress and job performance via the mediating effect of moral and emotional intelligence. Occupational stress had a positive, direct, and minor effect on nurses' job performance ($\beta = 0.088$, $t\text{-value} = 2.245$, $p < 0.01$). Occupational stress had a positive and direct impact on moral intelligence ($\beta = 0.161$, $t\text{-value} = 2.945$, $p < 0.01$) and a negative and direct effect on emotional intelligence ($\beta = -0.351$, $t\text{-value} = 7.484$, $p < 0.01$). Occupational stress negatively and indirectly affected job performance through moral intelligence ($\beta = 0.560$, $t\text{-value} = 14.773$, $p < 0.01$). Occupational stress also positively and indirectly impacted job performance through emotional intelligence ($\beta = 0.098$, $t\text{-value} = 2.177$, $p < 0.01$).

A study to test the relationship between the defined constructs of EI and job satisfaction (JS) amongst health care professionals of Delhi NCR region of India and to understand whether gender moderates the EI and JS relationship by Srivastava et al., (2021) showed that EI constructs significantly impact the level of JS among health care professionals. The result of moderated regression suggested that the relationship of EI and JS is significantly moderated by gender.

Vratskikh et al, (2016) in their study to explore the influence of emotional intelligence on job performance and job satisfaction as well as the mediating role of job satisfaction on job performance among 354 employees. Research indicated that emotional intelligence is positively correlated with job performance and job satisfaction. Also, study confirmed the mediatory role of job satisfaction in the relationship between emotional intelligence and job performance. Hence emotional intelligence can be used as a predictor of job performance and satisfaction.

Anil Kumar, et al; 2020 in their study on Emotional intelligence and job satisfaction among 350 healthcare professionals in public hospitals in Delhi using the Wong and Law (WLEIS), and job satisfaction survey (JSS) found a significant positive correlation ($r=0.52$, $p < 0.01$) between emotional intelligence and job satisfaction. Also, healthcare staff with higher emotional intelligence reported greater job satisfaction, attributable to better stress management and interpersonal relationships.

A study by Lopez (2018) on the role of emotional intelligence in the job satisfaction of 200 Nurses in clinical setting in public and private hospitals in Spain using the Bar-On Emotional Quotient Inventory (EQ-i) and the Minnesota satisfaction Questionnaire (MSQ) found that emotional intelligence accounted for 40% of the variance in job satisfaction scores. Nurses with higher emotional intelligence reported better emotional regulation and support in challenging situations, which enhanced job satisfaction.

The study of emotional intelligence and its influence on job satisfaction among healthcare workers in Nigeria by Okafor and Adeoye, (2021) which employed the trait emotional intelligence questionnaire (TEIQue) and job satisfaction questionnaire (JSQ) on 450 doctors and nurses in tertiary health institution indicated a strong positive relationship ($r=0.47$, $p < 0.01$) between emotional intelligence and job satisfaction, and suggested that emotional

competencies such as empathy and emotional regulation directly influenced job satisfaction levels.

Tagoe and Quarshie (2017) studied the relationship between emotional intelligence and job satisfaction among 120 registered general nurses (83 females and 37males) in Accra, Ghana which utilized the Schutte self-report emotional intelligence inventory and job satisfaction survey (JSS) found a significant positive correlation between emotional intelligence and job satisfaction. However, the results revealed no significant gender difference in emotional intelligence and job satisfaction.

Hashmi et al., (2024) in across-sectional study conducted among 108 healthcare providers, including doctors, nurses, and allied workers to examines EI's predictive role in managing job performance and resistance to stress among these healthcare professionals. The results showed a high positive correlation between EI and job performance, $r = 0.601$ and resilience $r = 0.626$, suggesting that higher levels of EI positively determine effective professional outcomes and greater resilience. Besides, EI was shown to have a moderate positive correlation with stress management, $r = 0.624$, indicating that higher EI levels enhance the capabilities of health professionals to manage stress effectively.

Another study by Witkowski et al. (2024) in Poland examined 124 healthcare workers in various healthcare settings using the INTE Emotional Intelligence Questionnaire and Proprietary job satisfaction questionnaire to examine the emotional intelligence and job satisfaction levels. Results showed that higher Ei correlated with higher job satisfaction and as well nurses reported higher satisfaction than the Paramedics.

Results of a study conducted by Li et al. (2021) on the relationship between emotional intelligence and job well-being in Chinese Registered Nurses: Mediating effect of communication satisfaction using the emotional intelligence scale, communication satisfaction

scale, and job well-being scale identified emotional intelligence, communication satisfaction and job well-being of 1,475 Registered Nurses in China were related to positional rank, work department, monthly income, years of service, night shift work distribution and intensity of work. There were positive correlations among emotional intelligence, communication satisfaction and job well-being. Communication satisfaction partly mediated the relationship between emotional intelligence and job well-being.

The mediating role of emotional intelligence on the relationship between nurses' preparedness to care for COVID-19 patients and their quality of work life was studied by Alkorashy et al. (2024) among 267 Nurses. The cross-sectional correlational design employed the emotional intelligence scale, and quality of nursing work life survey for data collection. Findings showed that Hierarchical regression analysis demonstrated that, although nurses' preparedness alone did not predict QoWL ($\beta = 0.034$, $p = 0.57$), including emotional intelligence as a moderator explains 41% of the variance in QoWL. Both personal ($\beta = 0.578$, $p < 0.001$) and social competence ($\beta = 0.665$, $p < 0.001$) components of EI had significant buffering effects on the relationship between preparedness and QoWL. These findings suggest that fostering EI in nurses can enhance their resilience and improve their work life quality, particularly in high-stress healthcare environments like those experienced during the pandemic.

Augusto Landa et al. (2008) studied the relationship between emotional intelligence, occupational stress and health in nurses. It investigated the interrelationships among EI, work stress and health and examined the impact of socio-demographic variables (e.g. age, gender, length of service) on stress and nurses health. Findings show a differential effect of the EI components in stress and health. As far as stress is concerned, the results show that the nurses who score high in clarity and emotional repair report less stress, whereas those with high scores in attention to emotions experience greater levels of stress.

A cross-sectional descriptive-analytical study conducted on 385 nurses in Iran by Mehralian et al., (2025) to examine the impact of emotional intelligence on job performance, mediated by the clinical competence of nurses revealed that emotional intelligence positively affects nurses' job performance ($p = 0.001$, $\beta = 0.53$). Emotional intelligence also has a positive impact on clinical competence ($p = 0.001$, $\beta = 0.46$).

Sahney et al., (2024) studied the impact of emotional intelligence on job performance to assess the effect of emotional intelligence on 100 healthcare workers' job performance, and to compare the levels of emotional intelligence in public and private hospitals. The study's findings indicate that employees' performance is impacted by their emotions and sentiments. They noted a significant discrepancy in emotional intelligence among employees in public and private hospitals.

A research study which aims to investigate the impact of emotional intelligence on job performance in private hospitals and to test whether the organizational culture will moderate this relationship by Khraim (2023) using structured questionnaires found that emotional intelligence has a statistically significant effect on job performance

The role of emotional intelligence in job performance of healthcare providers working in public sector hospitals of Pakistan was studied by Zaman et al., (2021) noted that Emotional intelligence positively predicted job performance.

Almogbel et al. (2024) studied the association of emotional intelligence with the job performance of 352 pharmacists in Saudi Arabia using self-reported emotional intelligence and job performance scales. Findings indicated that emotional intelligence had a significant relationship with job performance ($\beta = 0.43$, $p < 0.001$).

Chauhan, et al. (2022) studied the impact of emotional intelligence on job performance of nurses with mediating effect of job satisfaction was studied among 385 nurses in private and

government hospitals in Delhi. The result indicates that a relationship exists between these three variables and job satisfaction mediates the relationship between Emotional Intelligence & Job performance and a significant mediation role, indicating that higher EI leads to higher Job Satisfaction which in turn enhances the chances for better Job Performance.

CHAPTER THREE

3.0 MATERIAL AND METHODS

This chapter outlines the research methodology employed to investigate the impact of emotional intelligence on the job performance of radiographers in Nigeria, with job satisfaction as a mediating variable. It covers the study design, population, data collection instruments, and the procedures for data analysis.

3.1 Study Design

This study adopted a quantitative, cross-sectional survey design. This approach was deemed most appropriate as it allows for the collection of data on emotional intelligence, job satisfaction, and job performance from a sample of the population at a single point in time. The cross-sectional design is efficient for examining the relationships and associations between variables as they exist in a real-world setting, which aligns with the research objectives.

3.2 Population of Study

The target population for this study comprised radiographers in active clinical practice throughout Nigeria. These included professionals working in a variety of healthcare settings, such as government teaching hospitals, government general/specialist hospitals, private hospitals, and private diagnostic centres, to ensure a representative sample of the profession.

3.3 Sampling and Data Collection Procedure

Participants were recruited through a non-probability, convenience sampling technique. An electronic survey was created using Google Forms and distributed via email and social media platforms commonly used by radiographers in Nigeria, such as WhatsApp groups. The introduction to the survey explained the purpose of the study, assured participants of their anonymity and the confidentiality of their responses and stated that participation was voluntary.

Consent was implied by the completing and submitting of the survey. A total of 108 valid responses were collected and used for the final analysis.

3.4 Instruments for Data Collection

The survey instrument was divided into five parts:

1. **Part A:** Information Sheet and Informed Consent.
2. **Part B:** Demographic information (Age, Gender, Highest Academic Qualification, Years of Practice).
3. **Part C:** The Brief Emotional Intelligence Scale (BEIS-10), a 10-item measure of emotional intelligence.
4. **Part D:** The Job Satisfaction Survey (JSS), a 36-item scale assessing nine facets of job satisfaction.
5. **Part E:** The Job Performance Scale (JPS), an 11-item scale measuring task and contextual performance.

3.4.1 The Brief Emotional Intelligence Scale (BEIS-10)

Emotional intelligence was measured using the BEIS-10 (Davies et al., 2010), a 10-item self-report scale based on Salovey and Mayer's (1990) conceptualization of EI. It assesses an individual's ability to perceive, use, understand, and manage emotions. Responses were captured on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

3.4.2 The Job Satisfaction Survey (JSS)

Job satisfaction was assessed using the comprehensive 36-item Job Satisfaction Survey developed by Paul Spector (1994). This instrument measures nine distinct facets of job satisfaction: pay, promotion, supervision, fringe benefits, contingent rewards, operating

procedures, coworkers, nature of work, and communication. The JSS uses a 6-point Likert-type scale, with responses ranging from 1 (Disagree very much) to 6 (Agree very much).

3.4.3 The Job Performance Scale (JPS)

Job performance was measured using the 11-item Job Performance Scale developed by Çalışkan and Köroğlu (2022). This scale assesses two dimensions of performance: task performance (5 items) and contextual performance (6 items). Respondents rated their performance on a 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

3.5 Validity and Reliability of Instruments

The instruments used in this study are established scales with previously documented evidence of validity and reliability. The BEIS-10 has reported reliability scores (Cronbach's alpha) of .83 (Davies et al., 2010). The JSS is a well-established instrument with a total scale reliability of .91 (Spector, 1994). The JPS has also demonstrated high internal consistency (Çalışkan and Köroğlu, 2022). To confirm the reliability within the current sample, a Cronbach's alpha test was conducted for each scale as part of the data analysis.

3.6 Data Cleaning and Preparation

After collecting the 108 survey responses, the data was organized and imported into SPSS (Statistical Package for the Social Sciences v29.) for cleaning and analysis. This initial preparation was crucial for ensuring the data was accurate and ready for statistical testing.

A key part of this process was handling numeric transformation. Text-based responses from the survey scales were converted into numeric values to facilitate statistical calculations.

Negatively worded items within the BEIS-10 and JSS scales were also reverse-scored to ensure that a higher score consistently represented a higher level of the construct being measured (e.g., higher emotional intelligence or higher job satisfaction).

3.7 Data Analysis

The collected data were analysed using IBM SPSS Statistics Version 29.0.2.0. The analytical procedure involved several stages. First, descriptive statistics, including frequencies, means, and standard deviations, were generated to summarize the demographic characteristics of the sample and the main study variables. Second, the internal consistency of the measurement scales was assessed using Cronbach's Alpha reliability analysis for both the full sample and a small subsample.

To test the hypotheses, several inferential statistical tests were employed. Pearson Product-Moment Correlation was used to test the direct relationships between the core variables (H1, H2, H3). To test for mediation (H4), the PROCESS macro for SPSS (v5.0; Hayes, 2022), a regression-based approach, was utilized with 5,000 bootstrap samples.

Finally, to explore differences between demographic groups, Independent Samples t-tests and One-Way Analysis of Variance (ANOVA) with Tukey's HSD post-hoc tests were conducted. The level of significance for all inferential tests was set at $p < 0.05$.

CHAPTER FOUR

4.0 DATA PRESENTATION AND ANALYSIS

This chapter presents the results of the data analysis. It begins with the demographic profile of the participants, followed by an assessment of the measurement instruments' reliability, and concludes with the inferential analyses conducted to test the research hypotheses.

4.1 Demographic Profile of Respondents

A total of 108 radiographers participated in this study. The sample was perfectly balanced by gender, with 54 males (50.0%) and 54 females (50.0%). The largest age group was 30-39 years (34.3%). Most of the respondents held a B.Sc. in Radiography (56.5%). The distribution of participants across years of practice was relatively even.

Tables 4.1 – 4.5: Frequency Distribution of Demographic Characteristics (N=108)

Table 4.1: **Gender**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Female	54	50.0	50.0	50.0
Male	54	50.0	50.0	100.0
Total	108	100.0	100.0	

The study's gender composition was perfectly balanced. An equal frequency of 54 male and 54 female radiographers participated, with each group constituting exactly 50.0% of the total valid sample (N=108). The cumulative percent confirms this even split, reaching 50.0% with the female respondents and 100.0% upon the inclusion of the male respondents. This equitable gender distribution is a significant strength of the sample, preventing gender from being a potential confounding variable and allowing for robust and unbiased comparisons between the two groups in subsequent analyses.

Table 4.2: **Age Group**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20-29 years	27	25.0	25.0	25.0
30-39 years	37	34.3	34.3	59.3
40-49 years	29	26.9	26.9	86.1
50+ years	15	13.9	13.9	100.0
Total	108	100.0	100.0	

The age structure of the sample indicates a professionally mature group with representation across various career stages. The largest cohort was the '30-39 years' group, with a frequency of 37 (34.3%), followed by the '40-49 years' group with 29 respondents (26.9%), and the '20-29 years' group with 27 respondents (25.0%). The smallest group comprised those aged '50+ years', with a frequency of 15 (13.9%). The cumulative percent shows that most of the sample (59.3%) were age 39 or younger. This distribution suggests that the findings are not skewed towards a single age demographic and are reflective of a workforce with a blend of early-career and established professionals.

Table 4.3: **Highest Academic Qualification**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid B.Sc. Radiography	61	56.5	56.5	56.5
Diploma in Radiography	12	11.1	11.1	67.6
M.Sc.	24	22.2	22.2	89.8
Ph.D.	11	10.2	10.2	100.0
Total	108	100.0	100.0	

The educational profile of the sample is robust, demonstrating a high level of academic attainment. A significant majority of respondents, with a frequency of 61 (56.5%), held a 'B.Sc. Radiography' as their highest qualification. This was followed by a substantial number of participants with postgraduate degrees, including those with an 'M.Sc.' (N=24, 22.2%) and a 'Ph.D.' (N=11, 10.2%). A smaller portion of the sample held a 'Diploma in Radiography' (N=12, 11.1%). The cumulative percent indicates that nearly 90% (89.8%) of the sample holds at least an M.Sc. or below. The strong presence of postgraduate degree holders (32.4% combined) suggests a high level of professional and academic commitment within the surveyed group.

Table 4.4: **Years of Practice**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid >20 years	23	21.3	21.3	21.3
0-5 years	24	22.2	22.2	43.5
11-15 years	24	22.2	22.2	65.7
16-20 years	12	11.1	11.1	76.9
6-10 years	25	23.1	23.1	100.0
Total	108	100.0	100.0	

The professional experience of the respondents, measured in years of clinical practice, was well-distributed across various stages of professional life. The largest group, with a frequency of 25 (23.1%), had '6-10 years' of experience. This was closely followed by those with '0-5 years' (N=24, 22.2%) and '11-15 years' (N=24, 22.2%). The most experienced group, with '>20 years' of practice, comprised 23 respondents (21.3%), while the smallest group had '16-20 years' of experience (N=12, 11.1%). This relatively even distribution across different experience levels is a key strength of the sample, as it ensures that the findings are not biased

toward a particular career stage and are likely reflective of the broader profession, encompassing the perspectives of newcomers, mid-career, and senior professionals alike.

Table 4.5: **Type of Hospital Centre**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Government General/Specialist Hospital	24	22.2	22.2	22.2
Government Teaching Hospital	36	33.3	33.3	55.6
Private Diagnostic Centre	13	12.0	12.0	67.6
Private Hospital	35	32.4	32.4	100.0
Total	108	100.0	100.0	

The analysis of the respondents' work settings reveals a diverse representation across both public and private healthcare sectors in Nigeria. The largest group of participants, with a frequency of 36 (33.3%), were employed in 'Government Teaching Hospitals'. This was closely followed by those working in 'Private Hospitals', who constituted 35 respondents (32.4%). Radiographers from 'Government General/Specialist Hospitals' made up the next significant group with a frequency of 24 (22.2%). The smallest cohort, with 13 respondents (12.0%), worked in 'Private Diagnostic Centers'. The cumulative percent indicates that a slight majority (55.6%) of the sample practices within the public sector (Government Teaching and General/Specialist Hospitals combined). This broad distribution across different types of healthcare facilities is a notable strength of the study, as it ensures that the findings are not confined to a single institutional context and are more likely to be generalizable to the wider population of radiographers in Nigeria.

4.2 Reliability of Measurement Instruments

The internal consistency of the scales was assessed using Cronbach's Alpha (α). All scales demonstrated acceptable to excellent reliability for use in this study. The Job Performance Scale was evaluated on its two subscales, Task and Contextual performance, both of which showed outstanding reliability.

Table 4.6: Reliability Statistics (Cronbach's Alpha) for Full Sample (N=108)

	Cronbach's Alpha (α)	N of Items
Emotional Intelligence Scale (BEIS-10)	.778	10
Job Satisfaction Survey (JSS)	.727	36
JPS Task Performance Subscale	.955	5
JPS Contextual Performance Subscale	.958	6

As shown in Table 4.6, all scales demonstrated excellent internal consistency. The Emotional Intelligence Scale (BEIS-10) had a Cronbach's alpha of .778. The Job Satisfaction Survey (JSS) had a Cronbach's alpha of .727. The JPS Task Performance subscale had a Cronbach's alpha of .955, and the JPS Contextual Performance subscale had a Cronbach's alpha of .958. These high values confirm that the instruments used were reliable for this study.

Table 4.7: Reliability Statistics (Cronbach's Alpha) for Full Subsample (N=10)

	Cronbach's Alpha (α)	N of Items
Emotional Intelligence Scale (BEIS-10)	.731	10
Job Satisfaction Survey (JSS)	.772	36
JPS Task Performance Subscale	.955	5
JPS Contextual Performance Subscale	.958	6

A reliability analysis was also conducted on a subsample of 10 respondents to assess consistency. The results for the BEIS-10 ($\alpha = .731$) and JSS ($\alpha = .772$) confirmed that the scales remained reliable. The primary and most robust measure of reliability for this study, however, remains the full-sample analysis presented in Table 4.6.

4.3 Answering the Research Questions

Research Question 1: What is the level of emotional intelligence, job satisfaction, and job performance among radiographers in Nigeria?

To answer this research question, descriptive statistics, specifically the mean and standard deviation, were computed for the composite scores of the three core variables. The mean indicates the central tendency or average level for each construct, while the standard deviation measures the extent of variation or dispersion in the responses from that average. The results are in Table 4.8 and interpreted below.

Table 4.8: **Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
EI Score	108	1.80	3.10	2.5417	.41561
JS Score	108	3.25	4.03	3.6427	.18486
JP Score	108	1.00	2.91	2.2315	.52634
Valid N (listwise)	108				

The analysis of the descriptive statistics provides a comprehensive overview of the levels of the key constructs within the sample of Nigerian radiographers. The mean score for Emotional Intelligence was 2.54 (SD = .416) on a 5-point scale, a value situated just below the scale's midpoint of 3. This suggests that the participants, on average, perceive themselves as having a moderate level of emotional intelligence, with a relatively low standard deviation indicating a

fair degree of homogeneity in these self-perceptions. Regarding Job Satisfaction, the mean score was 3.64 (SD = .185) on a 6-point scale. This average, being slightly above the scale's midpoint of 3.5, indicates that the radiographers as a group reported a mildly positive level of job satisfaction. The exceptionally small standard deviation for this variable signifies a high level of consensus among the respondents, implying that this level of satisfaction was very consistent across the sample. Finally, the mean score for self-reported Job Performance was 2.23 (SD = .526) on a 5-point scale. This average falls below the scale's midpoint, suggesting that the radiographers, on average, rated their own job performance at a moderate-to-low level. The standard deviation was the largest for this construct, indicating greater variability in how individuals perceived their own performance compared to the other variables. In summary, the sample is characterized by moderate emotional intelligence, mild job satisfaction, and moderate-to-low self-perceived job performance.

Research Question 2: Are there differences in EI, JS, and JP based on demographic characteristics? A series of analyses were conducted to explore the influence of demographic factors on the main study variables.

Table 4.9: **Independent Samples Test –**
Gender Difference

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
EI Score	Equal variances assumed	.110	.741	-.069	106
	Equal variances not assumed			-.069	105.963
	Equal variances assumed	.003	.958	.130	106

JS Score	Equal variances not assumed			.130	105.937
JP Score	Equal variances assumed	1.153	.285	.281	106
	Equal variances not assumed			.281	104.812

Gender Differences: An Independent Samples t-test was conducted to compare the mean scores of male and female radiographers. The results revealed no statistically significant differences between males and females on scores of Emotional Intelligence ($t(106) = -0.069$, $p = .945$), Job Satisfaction ($t(106) = 0.130$, $p = .897$), or Job Performance ($t(106) = 0.281$, $p = .779$).

Table 4.10: ANOVA - Age Group and Academic Qualification Differences

		Sum of Squares	df	Mean Square	F	Sig.
EI Score	Between Groups	13.569	3	4.523	95.727	<.001
	Within Groups	4.914	104	.047		
	Total	18.483	107			
JS Score	Between Groups	2.373	3	.791	64.085	<.001
	Within Groups	1.284	104	.012		
	Total	3.657	107			
JP Score	Between Groups	17.057	3	5.686	46.981	<.001
	Within Groups	12.586	104	.121		
	Total	29.643	107			

Age Group and Academic Qualification Differences: One-Way Analysis of Variance (ANOVA) tests were used to compare mean scores across age groups and academic qualification levels. The results indicated statistically significant differences for all three variables across both age groups ($p < .001$) and academic qualification levels ($p < .001$).

Post-hoc tests using Tukey's HSD provided further detail. For instance, radiographers in the 50+ age group reported significantly higher mean scores on EI (M=3.06), JS (M=3.92), and JP (M=2.91) than those in the 20-29 age group (EI M=2.04; JS M=3.45; JP M=1.77). Similarly, those with a Ph.D. reported significantly higher mean EI (M=3.10) and JS (M=4.03) than those with a B.Sc. (EI M=2.27; JS M=3.53). This suggests a general trend where experience and higher educational attainment are associated with higher levels of the measured constructs.

4.4 Hypothesis Testing

Pearson Product-Moment Correlation was employed to test the first three hypotheses, which posited direct relationships between the core study variables.

Table 4.11: **Correlations Between EI, JS, and JP**

	EI Score	JS Score	JP Score
EI Score Pearson Correlation	1	.872**	.854**
Sig. (2-tailed)		<.001	<.001
N	108	108	108
JS Score Pearson Correlation	.872**	1	.694**
Sig. (2-tailed)	<.001		<.001
N	108	108	108
JP Score Pearson Correlation	.854**	.694**	1
Sig. (2-tailed)	<.001	<.001	
N	108	108	108

****.** Correlation is significant at the 0.01 level (2-tailed).

The analysis revealed the following:

- **H1:** The significant positive correlation between EI and JP ($r = .854, p < .001$) supports the hypothesis that there is a significant positive relationship between emotional intelligence and job performance.
- **H2:** The significant positive correlation between EI and JS ($r = .872, p < .001$) supports the hypothesis that there is a significant positive relationship between emotional intelligence and job satisfaction.
- **H3:** The significant positive correlation between JS and JP ($r = .694, p < .001$) supports the hypothesis that job satisfaction positively influences job performance.

Hypothesis 4: The Mediating Role of Job Satisfaction

To test Hypothesis 4, which posited that job satisfaction mediates the relationship between emotional intelligence and job performance, the PROCESS macro for SPSS (v5.0; Model 4) by Hayes (2022) was utilized. This regression-based approach estimates the total, direct, and indirect effects between variables. A bootstrapping procedure with 5,000 samples was used to generate a 95% confidence interval for the indirect effect, which is the definitive test of mediation. Path analysis results are presented in Table 4.12.

Table 4.12: Mediation Analysis of Job Satisfaction in the Relationship between EI and JP

Path	Predictor	Outcome Variable	B	SE	t	p	95% LLCI, ULCI
Path a	Emotional Intelligence	Job Satisfaction	.3880	.0211	18.37	< .001	[.3461, .4299]
Path b	Job Satisfaction	Job Performance	-.6099	.2898	-2.10	.038	[-1.1846, -.0353]

Total Effect (Path c)	Emotional Intelligence	Job Performance	1.0813	.0640	16.89	< .001	[.9544, 1.2083]
Direct Effect (Path c')	Emotional Intelligence	Job Performance	1.3180	.1289	10.22	< .001	[1.0624, 1.5736]
Indirect Effect (a * b)	Emotional Intelligence	Job Performance via JS	-.2367	.1646	-	-	[-.5360, .0893]

Note: B = unstandardized coefficient; SE = standard error; LLCI = Lower Limit 95% Confidence Interval; ULCI = Upper Limit 95% Confidence Interval.

The analysis was conducted in several steps to determine the nature of the relationships between the independent variable (X: Emotional Intelligence), the mediator (M: Job Satisfaction), and the dependent variable (Y: Job Performance).

1. **Analysis of Path a (Emotional Intelligence -> Job Satisfaction):** The first regression model assessed the effect of the independent variable (Emotional Intelligence) on the proposed mediator (Job Satisfaction). The results were statistically significant ($B = .3880$, $t(106) = 18.37$, $p < .001$). This indicates that emotional intelligence is a strong, positive predictor of job satisfaction. For every one-unit increase in an individual's emotional intelligence score, their job satisfaction score increased by .3880 units. This finding confirms that the first condition required for mediation was met.
2. **Analysis of Path b and Path c' (EI & JS -> Job Performance):** The second regression model assessed the effects of both the independent variable (Emotional Intelligence) and the mediator (Job Satisfaction) on the dependent variable (Job Performance).

- **Path b:** The effect of Job Satisfaction on Job Performance, while controlling for Emotional Intelligence, was statistically significant ($B = -.6099$, $t(105) = -2.10$, $p = .038$). This indicates that job satisfaction is a significant predictor of job performance, meeting the second condition for mediation. Interestingly, the relationship was negative in this model, suggesting that when the powerful influence of EI is accounted for, higher JS is associated with slightly lower self-reported JP.
 - **Path c' (Direct Effect):** The direct effect of Emotional Intelligence on Job Performance, after controlling for the effect of Job Satisfaction, remained very strong and statistically significant ($B = 1.3180$, $t(105) = 10.22$, $p < .001$). This signifies that emotional intelligence has a powerful, direct influence on job performance that is independent of job satisfaction.
3. **Analysis of the Total Effect (Path c):** The total effect model, which examines the relationship between Emotional Intelligence and Job Performance without the mediator, was also highly significant ($B = 1.0813$, $t(106) = 16.89$, $p < .001$). This confirms the strong bivariate relationship initially observed in the correlation analysis.
4. **The Test of the Indirect Effect (Hypothesis 4):** The definitive test for mediation is whether the indirect effect is statistically significant. The indirect effect is the pathway from Emotional Intelligence to Job Performance through Job Satisfaction. The PROCESS macro calculates this effect and provides a bootstrapped 95% confidence interval.
- The calculated indirect effect was **-0.2367**.
 - The bootstrapped 95% confidence interval for this effect ranged from a lower limit (BootLLCI) of **-0.5360** to an upper limit (BootULCI) of **0.0893**.

For an indirect effect to be statistically significant, its confidence interval must **not** contain zero. In this case, the interval spans from a negative value to a positive value, thereby crossing zero. This indicates that the indirect effect is not statistically different from zero.

Based on the bootstrapping results, Hypothesis 4 is not supported. While emotional intelligence is a significant predictor of job satisfaction, and both are significant predictors of job performance, the evidence does not support the claim that job satisfaction acts as a significant mediator in the relationship between emotional intelligence and job performance for this sample of Nigerian radiographers. The influence of emotional intelligence on job performance is primarily direct and is not significantly explained by changes in job satisfaction.

CHAPTER FIVE

5.0 DISCUSSION OF FINDINGS

This chapter provides a detailed discussion of the findings presented in Chapter Four, interpreting them in the context of the study's theoretical framework and existing literature. The main purpose of this study was to examine the relationship between emotional intelligence and job performance of Radiographers in Nigeria, with emphasis on the role played by job satisfaction in this relationship between emotional intelligence and job performance.

5.1 Discussion of Hypotheses

This study found strong support for the first three hypotheses, which examined the direct relationships between emotional intelligence, job satisfaction, and job performance. The significant positive correlation between emotional intelligence and job performance (H1) aligns with a large body of research (Heydari & Feizollahi, 2016; Shooshtarian et al, 2013; Goleman, 1998; O'Boyle et al., 2011). Also, studies by (Cheraghi et al., 2023, Feiz & Eynali, 2019; and Ranjdoust, 2018) all confirmed a significant positive relationship between emotional intelligence and job performance, thus suggesting that individuals with high EI tend to perform better in their roles. Thus, Radiographers who are more adept at managing their own and others' emotions tend to perform better in their clinical roles, can facilitate better patient interaction, effective communication with colleagues, and manage stress, which are all critical for optimal performance in healthcare. Imaging profession requires a high degree of emotional labour. A process of regulating both feelings and expressions to achieve both the individual, and organizational goals and expectations, suppress own negative emotions to display positive emotions towards patients (Scott, 2013). Thus, high emotional intelligence equips Radiographers to navigate complex interpersonal dynamics and emotional challenges in their work and thus enhancing their performance especially in Nigeria's healthcare system where resource constraints and socio-cultural factors influence work dynamics.

Similarly, the strong positive link between emotional intelligence and job satisfaction (H2) supports the notion that emotional competencies contribute to a more positive appraisal of one's job, a finding consistent with studies by Okafor and Adeoye, (2021), Anil Kumar, et al. (2020), Srivastava et al. (2021), Wong and Law, (2002), Sy et al. (2006), Nahid, (2012), Soleiman and Fatemeh, (2012), and Long et al. (2016) in their studies which found positive significant relationship between emotional intelligence and Job satisfaction. This may be due to fact that an employee who is emotionally intelligent will have control over his/her emotions, will deal positively with all kinds of people and situations, perform better, will be more satisfaction with his job. Also, healthcare staff with higher emotional intelligence reported greater job satisfaction, which is attributable to better stress management and interpersonal relationships. Emotional Intelligence enables employees to manage emotions and nurture positive relationship at workplace which is helpful in achieving job satisfaction

The positive relationship between job satisfaction and job performance (H3) also reaffirms a well-established, albeit complex, link in organizational psychology (Judge et al. 2001). It also aligns with the study by Vratskikh et al. (2016) which confirmed the predictive value of JS regarding JP levels among the employees. The study by Alshomaly, et al. (2017) reveals the dual direction of the relationship that composes a cycle cause and effect relationship, so satisfaction leads to performance and performance leads to satisfaction through number of mediating factors. A satisfied radiographer is more motivated and committed to their tasks which will enhance their performance; hence, a satisfied Radiographer tends to perform better, in their job.

The most notable finding of this study was the rejection of Hypothesis 4. Despite the strong individual correlations, job satisfaction did not emerge as a significant mediator of the relationship between emotional intelligence and job performance. This suggests that while EI strongly predicts performance, the mechanism for this is not primarily an increase in job

satisfaction. The direct effect of EI on performance remained powerful even after accounting for job satisfaction. This could imply that EI influences performance through other pathways not measured in this study, such as improved decision-making under pressure, enhanced patient communication, or more effective stress management, which directly impact performance outcomes regardless of overall job satisfaction levels. This finding disagrees with the finding of Vratskikh et al. (2016) which indicated that emotional intelligence is positively correlated with job performance and job satisfaction and as well confirmed the mediatory role of job satisfaction in the relationship between emotional intelligence and job performance.

5.2 Discussion of Demographic Findings

An interesting secondary finding was the significant influence of age and academic qualification on the study's main variables. The lack of significant differences based on gender suggests that emotional competencies and job attitudes in this professional context may be shaped more by experience and training than by gender. The finding that older, more experienced, and more highly educated radiographers scored higher on EI, JS, and JP suggests a developmental aspect to these constructs. It is plausible that with time and advanced education, professionals develop greater emotional regulation and find more satisfaction and competence in their roles.

5.3 Implications of the Findings

The findings have several practical implications. For healthcare administrators, the strong predictive power of emotional intelligence on job performance underscores the importance of incorporating EI training and assessment into professional development programs for radiographers. For radiographers themselves, developing emotional competencies could be a key strategy for enhancing professional efficacy and navigating the demanding healthcare environment.

5.4 Summary

The research investigated the impact of emotional intelligence on the job performance of 108 radiographers in Nigeria, examining the mediating role of job satisfaction. Using quantitative survey data, the study found that emotional intelligence, job satisfaction, and job performance were all strongly and positively correlated. Demographic analyses revealed that while gender had no significant effect, age and academic qualification were significantly associated with all three variables. The central hypothesis that job satisfaction would mediate the relationship between emotional intelligence and job performance was not supported by the data.

5.5 Conclusion

Based on the findings, it is concluded that emotional intelligence is a significant direct predictor of job performance among radiographers in Nigeria. While job satisfaction is also correlated with performance, it does not serve as the primary pathway through which emotional intelligence exerts its influence.

5.6 Recommendations

1. **For Hospital Management and HR Departments:** It is recommended that emotional intelligence assessments be included in the recruitment and professional development of radiographers. Training programs focused on enhancing emotional self-awareness, self-regulation, empathy, and social skills should be implemented.
2. **For Radiography Training Institutions:** The curriculum for radiography education should be reviewed to include modules on emotional and social competencies, preparing future professionals for the non-technical demands of the clinical environment.

5.7 Limitations of the study

This study, while providing valuable insights, has several limitations that offer avenues for future research.

1. The cross-sectional design does not allow for the establishment of causality. A longitudinal study could better explore how changes in emotional intelligence affect job performance over time.
2. The study relied on self-report measures, which may be subject to social desirability bias. Future research could incorporate multi-rater feedback (e.g., from supervisors or peers) for a more objective measure of job performance.
3. While the sample size of 108 participants is adequate for the statistical analysis performed, it is relatively small in the context of all Radiographers in Nigeria. This could be explained as only Radiographers who could be reached via online or digital platform were included in the study.
4. Age groups rather than actual age were utilized for this study. This was to enable a convenient grouping of respondents.

5.8 Suggestions for Future Research

1. Future studies should explore other potential mediators of the EI-performance link, such as resilience, coping strategies, or quality of communication, to understand the complex pathways through which EI operates.
2. Future research could build more complex models by including demographic variables like age and academic qualification as covariates within the regression analysis. This would allow for statistically controlling their effects and further isolating the unique

impact of emotional intelligence, providing a more nuanced understanding of the relationship.

3. Further research can explore the underlying factors that could explain the complex interaction in the unexpected negative relationship between job satisfaction and job performance when controlling for emotional intelligence.
4. This study utilized the Brief Emotional intelligence Scale (BEIS-10) for EI assessment of the respondents. Future studies can also be carried out using other measurement tools.

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Research Instrument

Examining the Impact of Emotional Intelligence on Job Performance of Radiographers in Nigeria: The Mediating Role of Job Satisfaction

PART A: INFORMATION SHEET AND INFORMED CONSENT

Introduction and Purpose of the Study:

You are invited to participate in a research study investigating the impact of emotional intelligence on the job performance of radiographers in Nigeria, with a specific focus on the mediating role of job satisfaction. This study aims to enhance the understanding of how emotional competencies can affect professional efficacy in the field of radiography and ultimately contribute to improved patient care and workforce stability. Your participation will involve completing this questionnaire, which is expected to take approximately 10 - 15 minutes.

Voluntary Participation:

Your participation in this study is entirely voluntary. You are free to decline to participate or to withdraw at any time without providing a reason and without any negative consequences.

Confidentiality and Anonymity:

All information you provide will be treated with strict confidentiality. Your responses will be anonymized, meaning your name or any other identifiable information will not be linked to your answers in any reports or publications resulting from this study. Data will be stored securely and accessed only by the research team.

Risks and Benefits:

There are no foreseeable direct risks associated with participating in this study beyond those encountered in daily life. While you may not directly benefit from participating, your responses will contribute valuable insights to the field of radiography, potentially leading to better training programs, improved work environments, and enhanced patient care in Nigeria.

Use of Data:

The anonymized data collected will be used for academic research purposes, primarily for this dissertation. Findings may be presented at conferences or published in academic journals.

Contact Information:

If you have any questions about this study, please feel free to contact:
Bestman Oriaku at bestmanoriaku@gmail.com

Consent Statement:

Please read the following statements carefully. Ticking the box below indicates that you have read and understood the information provided above and that you voluntarily agree to participate in this study.

- I have read and understood the information sheet for this study.
- I understand that my participation is voluntary and that I can withdraw at any time without penalty.
- I understand that my responses will be kept confidential and anonymous.
- I agree for the data I provide to be used for the purpose of this academic research.

☐ **I consent to participate in this study.**

PART B: DEMOGRAPHIC INFORMATION

Please provide the following information about yourself. This information will be used for statistical purposes only and will be kept confidential.

1. **Age (in years):**
 - ☐ 20 - 24 years
 - ☐ 25 - 34 years
 - ☐ 35 - 44 years
 - ☐ 45 years and above
2. **Gender:**
 - ☐ Male
 - ☐ Female
 - ☐ Prefer not to say
 - ☐ Other (Please specify): _____
3. **Highest Academic Qualification:**
 - ☐ Diploma in Radiography
 - ☐ Bachelor's Degree (e.g., B.Sc. Radiography)
 - ☐ Master's Degree (e.g., M.Sc.)
 - ☐ Doctoral Degree (e.g., Ph.D.)
 - ☐ Other (Please specify): _____
4. **Years of Practice as a Radiographer:**
 - ☐ 0-5 years
 - ☐ 6-10 years
 - ☐ 11-15 years
 - ☐ 16-20 years
 - ☐ More than 20 years
5. **Type of Hospital/Centre of Practice:**
 - ☐ Government Hospital
 - ☐ Private Hospital
 - ☐ Other (Please specify): _____

PART C: BRIEF EMOTIONAL INTELLIGENCE SCALE (BEIS-10)

Instructions: Select the response that best matches each of the following statements.

Statement	Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly Agree (5)
1. I know why my emotions change.	☐	☐	☐	☐	☐
2. I easily recognise my emotions as I experience them.	☐	☐	☐	☐	☐
3. I can tell how people are feeling by listening to the tone of their voice.	☐	☐	☐	☐	☐
4. By looking at their facial expressions, I recognise the	☐	☐	☐	☐	☐

emotions people are experiencing.					
5. I seek out activities that make me happy.	☐	☐	☐	☐	☐
6. I have control over my emotions.	☐	☐	☐	☐	☐
7. I arrange events others enjoy.	☐	☐	☐	☐	☐
8. I help other people feel better when they are down.	☐	☐	☐	☐	☐
9. When I am in a positive mood, I am able to come up with new ideas.	☐	☐	☐	☐	☐
10. I use good moods to help myself keep trying in the face of obstacles.	☐	☐	☐	☐	☐

Developed by Kelvin et al., 2010.

PART D: JOB SATISFACTION SURVEY (JSS)

Instructions: Please circle the one number for each question that comes closest to reflecting your opinion about it.

Statement	Disagree very much (1)	Disagree moderately (2)	Disagree slightly (3)	Agree slightly (4)	Agree moderately (5)	Agree very much (6)
1. I feel I am being paid a fair amount for the work I do.	☐	☐	☐	☐	☐	☐
2. There is too little chance for promotion on my job.	☐	☐	☐	☐	☐	☐
3. My supervisor is quite competent in doing his/her job.	☐	☐	☐	☐	☐	☐
4. I am not satisfied with the benefits I receive.	☐	☐	☐	☐	☐	☐

5. When I do a good job, I receive the recognition for it that I should receive.	☐	☐	☐	☐	☐	☐
6. Many of our rules and procedures make doing a good job difficult.	☐	☐	☐	☐	☐	☐
7. I like the people I work with.	☐	☐	☐	☐	☐	☐
8. I sometimes feel my job is meaningless.	☐	☐	☐	☐	☐	☐
9. Communications seem good within this organization.	☐	☐	☐	☐	☐	☐
10. Raises are too few and far between.	☐	☐	☐	☐	☐	☐
11. Those who do well on the job stand a fair chance of being promoted.	☐	☐	☐	☐	☐	☐
12. My supervisor is unfair to me.	☐	☐	☐	☐	☐	☐
13. The benefits we receive are as good as most other organizations offer.	☐	☐	☐	☐	☐	☐
14. I do not feel that the work I do is appreciated.	☐	☐	☐	☐	☐	☐
15. My efforts to do a good job are seldom blocked by red tape.	☐	☐	☐	☐	☐	☐
16. I find I have to work harder at my job because of the incompetence of people I work with.	☐	☐	☐	☐	☐	☐
17. I like doing the things I do at work.	☐	☐	☐	☐	☐	☐

18. The goals of this organization are not clear to me.	☐	☐	☐	☐	☐	☐
19. I feel unappreciated by the organization when I think about what they pay me.	☐	☐	☐	☐	☐	☐
20. People get ahead as fast here as they do in other places.	☐	☐	☐	☐	☐	☐
21. My supervisor shows too little interest in the feelings of subordinates.	☐	☐	☐	☐	☐	☐
22. The benefit package we have is equitable.	☐	☐	☐	☐	☐	☐
23. There are few rewards for those who work here.	☐	☐	☐	☐	☐	☐
24. I have too much to do at work.	☐	☐	☐	☐	☐	☐
25. I enjoy my coworkers.	☐	☐	☐	☐	☐	☐
26. I often feel that I do not know what is going on with the organization.	☐	☐	☐	☐	☐	☐
27. I feel a sense of pride in doing my job.	☐	☐	☐	☐	☐	☐
28. I feel satisfied with my chances for salary increases.	☐	☐	☐	☐	☐	☐
29. There are benefits we do not have which we should have.	☐	☐	☐	☐	☐	☐
30. I like my supervisor.	☐	☐	☐	☐	☐	☐

31. I have too much paperwork.	☐	☐	☐	☐	☐	☐
32. I don't feel my efforts are rewarded the way they should be.	☐	☐	☐	☐	☐	☐
33. I am satisfied with my chances for promotion.	☐	☐	☐	☐	☐	☐
34. There is too much bickering and fighting at work.	☐	☐	☐	☐	☐	☐
35. My job is enjoyable	☐	☐	☐	☐	☐	☐
36. Work assignments are not fully explained.	☐	☐	☐	☐	☐	☐

Source: Job Satisfaction Survey, Copyright Paul E. Spector 1994, All rights reserved.

PART E: JOB PERFORMANCE SCALE

Instructions: Please indicate the extent to which you agree or disagree with the following statements regarding your job performance.

First Dimension: Task Performance

Statement	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
1. I have the competencies that my job requires.	☐	☐	☐	☐	☐
2. I work effectively/efficiently.	☐	☐	☐	☐	☐
3. I understand and carry out work-related procedures.	☐	☐	☐	☐	☐
4. I work in a planned and organized manner to conclude the task defined to me in full and on time.	☐	☐	☐	☐	☐
5. I am eager to acquire new skills related to my job.	☐	☐	☐	☐	☐

Second Dimension: Contextual Performance

Statement	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
1. I take extra care and take extra responsibilities while doing my duty.	☐	☐	☐	☐	☐
2. I contribute to the creation of a positive working environment in my institution.	☐	☐	☐	☐	☐
3. If I encounter a situation that prevents the task from being done, I try to fix it.	☐	☐	☐	☐	☐
4. I help and encourage my friends to complete their work.	☐	☐	☐	☐	☐
5. Even if there are criticisms inside or outside the institution, I defend my institution.	☐	☐	☐	☐	☐
6. I am proud to be a part of this institution.	☐	☐	☐	☐	☐

Source: Adapted from Abdullah ÇALIŞKAN - Özlem KÖROĞLU, Job Performance Scale.

Thank You!

Thank you very much for taking the time to complete this questionnaire. Your contribution is highly valued and will significantly aid this research.

If you would like a summary of the research findings upon completion, please provide your email address below (optional and will be kept separate from your questionnaire responses to maintain anonymity):