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## A STUDY ON THE NEED TO INTEGRATE NURSING SERVICES IN CONSTRUCTION MANAGEMENT PRACTICES IN NIGERIA.

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### ABSTRACT

The need for construction health and safety is vital throughout the life of construction projects because it has a direct correlation to the outcome of the project. The risk-prone nature of the construction industry means that a health professional is always available before, during and after hazards happen. Most construction sites in Nigeria have cases of safety officers not being proactive in preventing injuries, lacking on-the-spot decision-making initiative or doing more harm than good in the cause of managing eventualities. There is therefore a need to engage a trained and registered health practitioner whose sole role is to manage health and safety on construction projects. The aim of this paper is to carry out a study on the need to integrate nursing services into construction management practices in Nigeria. To achieve this aim, the study examined the critical roles of having a registered/trained nurse in construction operations, determined the impact of integrating nursing services on construction sites, evaluating the impact of integrating such services, and recommended measures for managing the challenges facing the integration of nursing services on construction sites. The study adopted descriptive survey design through interactions with a focus group of 10 stakeholders. The responses show that the critical role of a nurse on ongoing construction projects is that they provide collaborations between the site and health care facilities off site, direct patient care and safety on site, etc. Most construction firms don't use the services of a trained/registered nurse because they don't know what's the

right approach to engaging a third party to manage safety issues over using excusing a member of the construction team with safety experience. The study, however, proved that having a trained or registered nurse on construction projects allows for easy implementation of construction workers' health packages as well as coordinating constant health and safety talks. The study recommends that there should be wide integration of trained/registered nurses during construction management operations, proper planning/budgeting for nursing services, and creating advocacy for clinical services in all construction operations.

**KEYWORDS:** Nursing services, healthcare, construction management practices, built environment.

## INTRODUCTION

According to Gloria(2021), the construction industry operations have been known to have a massive health and Safety impact on individual's directly and indirectly related to its activities. To prevent and manage these casualties, there is a need to incorporate the service of a resident nurse in the management of identified construction health and Safety issues. This is very important for continued wellbeing of both the site workers and the safety of the construction site. Most construction team often omitted the service of a trained nurse to administer the first aid provisions often provided on most construction sites. In the spirit of gender equality and ensuring that the family of staff are well catered, the need to have a site based welfare facility managed by a registered nurse comes handy in communities where primary health center are provided. According to Ziprecruiter (2025), a construction nurse "provides medical care and first aid to workers on construction sites". They respond to construction sites emergencies, ensure compliance to health and safety rules, educate workers and managers as well as collaborate with construction stakeholder.

The study by Gloria(2021) shows that, while it is very important to have on site an health unit with a registered/trained Nurse; this is often omitted and where there is an affiliated health facilities, it is usually far from construction site who readily need their input to manage fatal accidents on site or serve as referrals points after first aid administration. This study therefore intends to bridge the gap by reducing cases that would have been avoided if a resident health professional expert were on site. The study intends to enlighten stakeholders in the built environment on the role of having a resident/trained nurse on all it's field operation points. The research questions guiding the review included: what are the critical role of nurses in construction operations, what are the impact of integrating nursing service

on construction sites, what are challenges confronting the adoption of nursing services on construction operations and to recommend measures to enhance more integration of nursing services for improving the well-being of construction stakeholders.

## **2.0 Literature Review**

Salihu, Yahaya, Lola (2015), acknowledges that the role of registered nurses in public health interventions and social economic development is visibly seen in how it has reduced mortality and increased life expectancy rates in most countries which have adopted them on a specific industrial basis. The study recommends that a clinical nurse or specialist can come in either as an educator or operational personnel with a wealth of influence to discover, prevent and treat health-related issues for a community or individual(Newhouse et al., 2011). According to Kalal, Nipin, Sharma, and Suresh(2025), integrating nursing services is also a critical measure in addressing the multifaceted challenges within the healthcare system.

### **2.1 Critical Roles of a Nurse in Construction operations**

The role of the nurse is both pre- and post-injury on construction sites, while a registered nurse is available to alleviate attendant injury after it happens. The Advanced Practice Registered Nurse (APRN, 2008), in its review, also concludes that using a nurse specialist in a hospital-related setting will reduce length of stay, cost of care and improve parents' patient's outcome. There are key factors that qualify a registered nurse as the best person to handle occupational health and safety issues, according to Gian Von Gerri Yia(2024). They include expertise and background in Training and Education in First Aid and Emergency Response, Exceptional Communication Skills, Risk Assessment Skills, Health Expertise, In-depth Regulatory Knowledge, Strong Problem-Solving Skills and Adaptability in Dynamic Environments. The study by Sparacino (2005), identifies specific roles of a resident nurse to include:

- (1) Health care assessment and evaluations as well as implementing outcomes.
- (2) Expert guidance, education or teaching health and safety skills to site and non-site-based construction stakeholders.
- (3) Collaboration with external health care facilities and site-based recipients.
- (4) Consultations and directing patient care and access to care.

### **2.2 The Impact of integrating Nursing services on construction sites.**

Gian Von Gerri Yia, in a LinkedIn post, recognizes that registered nurses are now a common place in the Philippines construction industry as they enhance occupational health and safety

protocols. This demand is attributed to the inherent hazards from physical to substance exposures prevalent in the industry. The background of a registered nurse makes them ideal as safety officers. The post identified ten (10) reasons that make a registered nurse ideal in occupational health and safety management practices. The study concludes that "by leveraging their unique skill sets, registered nurses can play a crucial role in shaping the future of occupational health and safety in construction, ultimately contributing to a safer and healthier workforce. "There are many benefits of having a registered nurse among the staff that manage construction activities. While the nurse majors on maintaining the health and safety of site-based operative, it also watches how the operation impacts its neighbors based on standard practices.

1. Implementing workers' right to vacation and sick day leave
2. Ensuring that appropriate remuneration, compensation and welfare packages are released for those affected by the construction operations negatively
3. Make a timely diagnosis, offer treatment, prescribe medications and solve people's health problems(Chika, et.al.,2014).
4. Augment the gap in the required doctor services inadequacy.
- 4.Offer constant health and safety talks.

### **2.3 Challenges confronting the integration of nursing Services on Construction operations in South east, Nigeria**

Grace and Adelphine (2021) assert that though the nursing process is an essential tool in improving patient and health outcomes, it is not adequately implemented in Sub-Saharan Africa. Even though there are standards by the ministry of health, National Building codes and relevant nursing bodies on the role of health and safety provisions in construction-based activities, incorporating this has been hampered by lot of challenges which include

**1. Use of perceived cost-saving alternatives:** The perceived cost of employing a resident nurse and health care provider has made most construction-based organizations have a designated welfare point with no professional in view, they will rather adopt unapproved mitigating practices, believe it would never happen or make an emergency request when it may be too late.

**2. Engaging personal opinion and untrained personnel:** Some other organizations who recognize the need for health consciousness and mitigation plans often resort to not using individuals who lack the scientific knowledge of health and safety. . Mundinger (1995),

acknowledges that there are specific undertakings that only doctors and practitioner nurse can fill from risk detection to management. Role ambiguity is what will warrant that when there is any health-related issue during construction operations, a random carpenter or iron fixer is called to step in based on personal experience instead of proven professional development.

**3. Reinbursement and billing issues:** Construction sites that recognize the role of a nurse on its sites also struggle with how to renumerate either per patient, project based or based on referrals. Often because of this lack of basis, the management team may see the nurse as idle and may find it difficult to continue to pay.

**4. Strain of recognizing a registered nurse:** Most organizations still can't distinguish between an auxiliary nurse and a registered nurse and, as such, don't understand the draw back to each practitioner. While some sites engage just a nurse, challenges occur when professional expectations aren't met. A clinical or registered nurse must have earned a bachelor's degree, gained experience, receive his license, be certified to practice and engage in ongoing growth and development.

#### **2.4 Measures for managing the challenges facing the integration of nursing services on construction sites**

Egwudo etal (2025), in a study on "Integrating digital health technologies into the healthcare system: Challenges and opportunities in Nigeria" suggested that there is a need for community engagement and involvement of healthcare workers in undeserved areas. This study therefore identified the construction industry as an undeserved area while also recognizing that construction activities are community-based projects. Having identified so many challenges contributing to a gap in nursing services on construction sites in the study area, key measures have been suggested to ensure a change in the present scenario.

1. There should be proper planning and budgeting for nurses and nursing services on all construction sites.
2. There should be advocacy for clinical services demanded by Nurses Union and Professional bodies on construction sites backed up by government laws.
3. Awareness and public campaign on the impact of the construction industry on the health and safety of its stakeholders. When the data on health and safety on construction sites are published, it will create awareness.
4. There should be readiness and willingness to engage registered nurses and specialists in Nigeria.

### **3.0 Methodology**

The reviewed studies were selected from a series of original studies carried out across the South East, Nigeria. Literature on the role of health care services providers and nurses were sought from PubMed, CINAHL, MEDLINE, African Index Medicus databases, and Google Scholar. The study was a descriptive survey and observational. It was conducted with a self-structured questionnaire assigned to both health and construction professionals across the study area. The sample frame therefore includes:Nurses, individuals in academia and policymakers in the field of health and the built environment.

### **4.0 Analysis and Findings**

From the 10 questions administered through peer review and close-ended interactions between shared among 3 healthcare workers, two academics, two government agencies, 1 construction professional and two other neutral stakeholders .80% of the Focus group have less than 5 years of working experience and 20% with 5-10years experience;80% of the respondents strongly agree that the critical role of a Nurse in enhancing the success of an ongoing construction Projects is that they provide Collaborations between the site and health care facilities Off site, direct patient's Care and Safety on site(7), carry out health care assessment and evaluations(5) and teach Safety health and Safety skills to site based Construction stakeholders(4). Despite the identified need for having professional nurses on construction sites, certain challenges were identified that have hindered this initiative. They includes:cases of conflict of opinion on what's the right approach to safety issues between site-based construction stakeholders who used the excuse of having safety experience to interrupt trained nurses doing their professional responsibilities. Deciding on the cost of engaging a trained nurse, monthly salary/bill, or the basis for reimbursing resident nurses (6)on construction sites, especially where they are employed but have no issues to attend to at the end of the month, it's also difficult to know what basis to use to employ a resident nurse(5) either base on working experience or Professionals registration. Integrating a registered nurse on construction projects allows for implementation of workers' health packages as well as constant health and safety talks(7), ensuring appropriate welfare packages (6) and timely diagnosis of health and safety-related issues, as well as augmenting the gap in doctor's arrival (5). It was finally suggested that to ensure the wide integration of trained nurses in construction management operations, there is a need to manage the identified barriers through proper planning and budgeting for nursing services (10), advocacy for clinical services(9),

readiness and willingness to engage a registered nurse, awareness and public campaign (7) on the need for all construction site operations integrating the service of a nurse.

## **5.0 Recommendations**

The study therefore recommends that since maintaining health and safety during construction operations is very critical in the eventual outcome of construction projects, there is a need to be aware, willing, ready, properly plan and budget to employ a trained or registered nurse throughout every construction project's lifecycle.

## **Data Availability**

All data underlying the findings of this study are fully available and can be accessed without restriction. The data are included as supplementary files with this submission.

### **(i) Acknowledgments**

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### **(II) Disclosure of Conflict of Interest**

Authors declare that there is no conflict of interest regarding the publication of this manuscript.

### **(iii) Statement of Ethical Approval**

All relevant ethical approval for this study has been obtained and maintained.

### **(iv) Statement of informed Consent**

All necessary informed consent were obtained.

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