

Gender Differences in Health and Safety: The Need for Womens Involvement in Port Harcourt Metropolis

Prof. Innime Righteous¹ & Dr. Umasom Eromoni-John²

Pioneer Dean Faculty of Medical and Allied Health Sciences, Federal University of Environment and Technology, Koroma/Saakpenwa, Ogoni
 Orchid ID: 000-0002-0909-6024

*Corresponding Author: Prof. Innime Righteous

DOI: <https://doi.org/10.5281/zenodo.20002482>

Article History	Abstract
Original Research Article	<p><i>Gender as a term is a logical means for creating awareness about inequalities perverted due to institutional structures in many societies across the world. The aim of this study was to assess health and safety and the gender gap: the need for women’s involvement in Port Harcourt Metropolis. A descriptive cross-sectional survey was adopted for this study. The population for this study comprised of estimated workers from various industrial companies in Port Harcourt Metropolis. A sample size of 500 was calculated using the Taro Yamane formula for a large population. A multi-stage sampling procedure was adopted for this study. The instrument for data collection was a self-structured questionnaire Data collected was analyzed with Statistical Product for the Service Solutions (SPSS) using the descriptive statistics of frequency and percentages (%). The finding of the study revealed that 398(82.7%) of the respondents who participated in health and safety were males while 83(17.3%) were females. The finding also showed that there was significant difference in health and safety involvement based on gender among workers in construction companies in Port Harcourt Metropolis (X^2-value = 51.175; $df = 1, p < 0.05$). The study concluded that there was a very large gap among gender in the safety profession with women being affected; therefore, there is need for women to be encouraged to participate and get involved in safety education, recruitment and enrollment in safety educational courses and or programmes. The study recommended amongst others that safety stakeholders and relevant agencies should ensure diversity and inclusion of all gender to make workplaces safer and further protect a greater number of employees from injuries and fatalities.</i></p> <p>Keywords: Safety, health, gender gap, involvement, women, Port Harcourt Metropolis.</p>
Received: 01-01-2026	
Accepted: 03-02-2026	
Published: 22-02-2026	
<p>Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.</p> <p>Citation: Prof. Innime Righteous & Dr. Umasom Eromoni-John. (2026). Gender Differences in Health and Safety: The Need for Womens Involvement in Port Harcourt Metropolis. UKR Journal of Multidisciplinary Studies (UKRJMS), 2(2), 147-151.</p>	

Introduction

Gender, as an analytical category triggers, a profound exploration of inequalities integrated into societies and institutional structures. It does not view women as a homogeneous group but rather focuses on the role, responsibilities and needs of both women and men. Patriarchal systems present a context in which women should be seen as disadvantaged, and the pursuit of gender equality must take into account women’s conditions —and experiences— (Pant, 2021). Issue 2: Gender role stereotypes lead to underrepresentation of women in health and safety in roles. Workplace tools & equipment—ranging from PPE to machinery—have often been designed without consideration for women bodily characteristics, posing

safety risks while further perpetuating inequities in occupational environments and safety education (Stegall 2020).

Women also experience violence and harassment in the workplace, along with narratives about their vulnerability. American Society of Safety Professionals, National Safety Council (2019) data indicate women are disproportionately injured at work from assault-related injuries and assault is one of the leading causes of women across United States [5]. The results highlight the importance of the constant refining and improving of work practices, such as supervisor training and office safety policy enforcement. To address these concerns, ASSP assembled an expert

panel to explore topics like women in health and safety, access to PPE and workplace violence, ultimately issuing recommendations designed to close the gender gap in safety.

While women represent about half of the overall workforce, their presence in the safety profession is much smaller. Women comprise only about 19% of the safety workforce, and hold for approximately 22% of the Certified Safety Professional credential granted by the Board of Certified Safety Professionals. The gap shows a dramatic gender divide in the profession, exacerbated by pay inequalities and lack of access to leadership roles. Women working in or interested in entering safety-related roles have, compared to men, more barriers to climb the career ladder and gain professional recognition.

Research conducted by the American Society of Safety Professionals (2019) notes that part of this gap can be explained through a lower enrollment rate among females in safety-focused degree programs, signalling a discrepancy in educational pathways into the profession. Inequality is, of course, also driven by wider society such as inflexible workplace set-ups that make work-life balance challenging; the continuing stereotype of occupations by gender; and poorly enforced policies on harassment and discrimination. Collectively, these challenges hinder women's chances of entering, progressing and thriving within the field. As a result, it is critical to conduct this study to assess the level of women's participation in health, safety and environment (HSE) as well as implement concrete steps to support women's inclusion, equity and participation worldwide.

Research methods

Area of the study

The area of the study was Port Harcourt metropolis of Rivers State, Nigeria.

Research Design

Descriptive cross sectional survey design was adopted for the study as the research design.

Population of the Study

The population of the study comprised of estimated workers from various industrial companies in Port Harcourt Metropolis.

Sample and Sampling Techniques

The maximum sample size of the study was 500. The sample size of the investigation was determined using Taro Yamane formula for large population.

The study employed a multi-stage sampling process which was given in three phases in selecting the sample for the investigation.

Stage one: Port Harcourt city and Obio/Akpor Local Government Areas of Rivers State were selected using simple random sampling approach (balloting without replacement).

Stage two: two zones were selected using cluster sampling technique, zone 1 comprises of Eneka, Ozuaba, Trans-Amadi, Iwofe, Rumoukoro and zone 2 comprises of Amadi Ama, Abuloma, Borokiri, Elemenwo, and Marine base where most of the construction companies are situated to afford access to the participants.

Stage Three: In each zone, 28 workers were picked from the five studied locations using a non-stratified proportionate sampling technique.

Instrument for data collection

The instrument used to elicit information for this study was a structured questionnaire entitled "Questionnaire on gender involvement in health and Safety among construction workers".

Validity of the instrument

The instrument was validated three experts in occupational health and safety from the department of Human Kinetics Health and Safety Education for content, construct and face validity.

Reliability of Instrument

A test retest method was employed using a scout of the instrument. The Reliability coefficient value of 0.86 was obtained using Pearson Products Moment Correlation Coefficient. Hence the instrument was reliable and used for the study.

Method of Data Collection

Before the data collection, formal consent was obtained through an introductory letter from Head of Department of Human Kinetics, Health and Safety Education. A structured questionnaire was used with the support of three trained enumerators for two weeks. In order to maintain consistency and accuracy, the assistants were informed of the aims of the study and how to respond to participant inquiries during data collection. Questionnaires were given and collected on the spot (immediately after completion) in order to improve data collection efficiency and response rate.

Method of Data Analysis

The collected data were coded systematically and analyzed using Statistical Package for the Social Sciences version 23.0. Descriptive and inferential statistical techniques were used for analysis. The data were summarized using descriptive statistics by computing frequencies and simple percentages, and inferences were drawn about relationships and hypotheses of the study while applying chi-square test.

Results

Level of gender involvement in health and safety

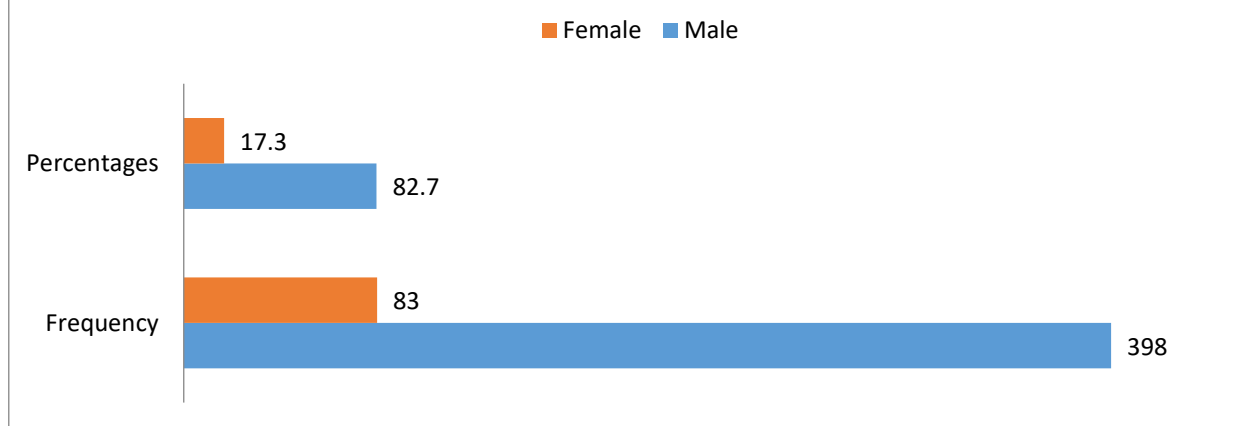


Figure 1 shows the level of gender involvement in health and safety in construction companies.

The finding of the study revealed that 398(82.7%) of the respondents who participated in health and safety were males while 83(17.3%) were females. This shows that less than a quarter of women involved in safety and health occupations across various industrial companies in Port Harcourt Metropolis.

Table 1: There is no significant difference in health and safety involvement based on gender among workers in construction companies in Port Harcourt Metropolis

Table 1: Chi-square test showing significant difference in health and safety involvement based on gender among workers in construction companies in Port Harcourt Metropolis

Variables	Active involvement in health and Safety		Total Freq %	df	X ² -value	p-value	Decision
	Yes Freq %	No Freq %					
	Gender						
Male	285(71.6)	113(28.4)	398(100)	1	23.039	0.000	Rejected
Female	80(96.4)	3(3.6)	83(100)				
Total	365(75)	116(24.1)	481(100)				

*Statistical significant (p<0.05)

The finding of the study showed that there was significant difference in health and safety involvement based on gender among workers in construction companies in Port Harcourt Metropolis (χ^2 -value = 51.175; df = 1, p<0.05). Therefore, the null hypothesis which states that there was no significant difference in health and safety involvement based on gender among workers in construction companies in Port Harcourt Metropolis was rejected.

Discussion

The finding of the study revealed that majority of the respondents who participated in health and safety were males while less than a quarter were females. This shows that less than a quarter of women involved in safety and health occupations across various industrial companies in Port Harcourt Metropolis. The finding of the study also showed a

significant difference in health and safety involvement based on gender among workers in construction companies in Port Harcourt Metropolis. By implication, women are far more behind or carried along in the health and safety business. The finding of this study corroborates the studies of Gbadebo et al (2012) and Kalabamu (2001) whose studies discovered that very few percentages of women were part of safety programmes. This also confirms the words of Stegall in 2020 who reported that there was need to involvement women in safety leadership positions in order to encourage women develop interest in the health and safety industry.

The finding of this study is in keeping with the studies of the National Safety Council (2019) and the American Society of Safety Professionals who lamented the gap between genders in the safety profession. Hence, it has made women become prone to accident in work place compared to men. Some other studies

reported that it has contributed to the slaking back of women in showing more interest in the engineering profession, seeing themselves as not fit for the industry (Vartabedian, 2018; World Bank, 2012; Ubelejit & Harcourt, 2020). This also means that the profession has seen women to be less active

However, the studies of Douglas et al (2017), Jaja (2009) and Chinwendu and Edeke (2016) linked the gender gap reported among professionals in the safety industries to cultural background, violence against women, recruitment procedures and poor involvement of women in leadership positions. Hence, this has contributed to the poor enrollment of women in safety programmes around the world. Therefore, there is need to treat this case as an important issue in the empowerment of women through the safety education.

The finding of this study relates to the finding of Olaleye and Omokhua (2012), Pines and Zaidman (2003), Osita-Ejikeme and Worlu (2017) and Amadi et al (2013). These studies reported that women are neglected in the safety profession with more concern being attributed to the cultural determinant of the situation as most cultural settings just believes that safety should be a man's affair. However, it ought not to be so. By implication, for more women to be involved in the safety profession, there is need to encourage their interest and enrollment in the safety programmes.

Conclusion

Based on the finding of the study, it concluded that there was a very large gap among gender in the safety profession; therefore, there is need for women to be encouraged to participate and get involved in safety education, recruitment and enrollment in safety educational courses and or programmes

Recommendation

1. An approach to gender equity and diversity in the safety industry should be considered a strategic priority which is identified by its intrinsic long-term benefits for worker protection and organizational performance. Hence, safety stakeholders along with agencies need to promote practices that are inclusive in nature enabling the equal inclusion of all genders – and thus countering occupational injuries and fatalities leading to safer workplaces.
2. This requires targeting female entry into safety-related academic programmes at the tertiary level as part of efforts to improve gender balance in the safety workforce. Work around such things will go a long way in building a pipeline of diverse talent entering the space.
3. It is also important to develop an awareness of careers, so the earlier we can introduce students at the secondary school level to the profession of

safety, the more interest will be generated and informed career choices made by those still relatively young in age.

4. Real commitment to diversity and inclusion, from government bodies, safety organizations and other stakeholders alike, needs to be shown through practical policies that remove those structural barriers preventing women from securing a place in, staying in and being supported into leadership roles at all levels within safety-related careers.
5. Support and advocate for cultural inclusivity and the role of women in safety-related occupations, as diverse perspectives are necessary to solve complicated workplace issues and identify risks associated with each gender.

References

1. Amadi, R. O., Adolphus, D., & Harcourt, R. P. (2013). Global economic crisis: A challenge to the entrepreneurship development of technical vocational education and training in oil and gas sector of the Nigerian economy. *Journal of Economic and Sustainable Development*, 4(12), 67-82.
2. American Society of Safety Professionals (ASSP) (2019). The problem of gender differences in the 21st century.
3. Chinwendu, O., & Edeke, S. O. (2016). The Impact of Contract Staffing on Job Productivity: A Study of Selected Organisations in Port Harcourt Rivers State, Nigeria. *Equatorial Journal of Social Sciences and Human Behaviour*, 1(1), 43-47.
4. Douglas, K. E., Harcourt, P., & Harcourt, P. (2017). Prevalence and pattern of workplace violence and ethnic discrimination among workers in a tertiary institution in Southern Nigeria. *Open Access Library Journal*, 4(03), 1.
5. Gbadebo, A.M., Kehinde, I.A. and Adedeji, O.H. (2012). Participatory Roles of women in Quarrying Activities in Abeokuta metropolis. *Global Journal of Human Social Science*, Volume 12 (13)
6. Jaja, E. T. (2009) Department of Applied and Environmental Biology Rivers State University of Science and Technology Nkpolu, Oroworukwo, Port Harcourt.
7. Kalabamu, F. (2001). Westernisation of gender roles in house construction in Botswana. *In International Development Planning Review* 23(3), 301 – 322.
8. [National Safety Council](#) (NSC) (2019). Gender gap in the safety industry.
9. Olaleye, S. M., & Omokhua, G. E. (2012). Women involvement, empowerment and control of non-

timber mangrove forest products in Rivers State. *Niger. J. Agric. Food Environ*, 8, 9- 13

10. Pant, L. D. (2021). Gender Mainstreaming in the Media: The Issue of Professional and Workplace Safety of Women Journalists in Nepal. In *Handbook of Research on Discrimination, Gender Disparity, and Safety Risks in Journalism* (pp. 194-210). IGI Global.
11. Pines, A. M., & Zaidman, N. (2003). Gender, culture, and social support: A male–female, Israeli Jewish-Arab comparison. *Sex Roles*, 49(11), 571-586.
12. Stegall, D. (2020). Problems of gender discrimination in the leadership role of safety professionals in ASSP.
13. Ubelejit-Nte, A. A., & Harcourt, P. (2020). Achieving Equality for Each Gender in the Workplace: *The African Dimension*. 6 (2), 35-39.
14. Vartabedian, J. (2018). *Brazilian Transvesti Migrations: Gender, Sexualities and Embodiment Experiences*. Palgrave: Macmillan
15. World Bank (2012). Gender Differences in Employment and why they matter. www.Siteresources.worldbank.org>chapter5