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Variation in Monkeypox Awareness and Preparedness among Students of Basic Medical Science, Adeleke University and Osun State University, Nigeria

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ABSTRACT

Background: Human Mpox, previously known as monkeypox, is an infectious viral illness caused by the monkeypox virus (MPXV). Although MPX is not a new disease, but it was considered a geographically isolated disease until recently. The global spread of the disease has consequently created a cause for concern.
Objectives: This study evaluated the variation in knowledge and preparedness for possible monkeypox outbreak among students of Basic Medical Science of Adeleke University, Ede and Osun State University, Osogbo.
Methods: A cross sectional survey was conducted using adapted questionnaire
A sample size of 315 respondents was chosen within the two university using simple random sampling techniques
Result: Findings reveal that more than half of the respondents were aged 20-24 years, 186 (59.0%), in nursing department 309 (98.1%) . vast majority of the respondents had not attended training on monkeypox 294 (93.3%), more than 90% of respondent had heard about monkeypox prior to formal instruction, and 60–80% understood basic symptoms and transmission modes. In relation to knowledge only 37–45% of respondents could correctly answer detailed clinical or transmission scenario questions**.**
Conclusion: Despite high levels of reported awareness amongst Nursing, physiology and nutrition and dietitics students at Adeleke and Osun State universities, significant gaps persist in detailed knowledge, practical skills, and actual engagement in sustained preventive behaviours.

Keyword: Knowledge, practice, preparedness, infectious, viral illness, undergraduates

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INTRODUCTION

Human Mpox, previously known as monkeypox, is an infectious viral illness caused by the monkeypox virus (MPXV), a species of the genus Orthopoxvirus. Human monkeypox was considered a geographically isolated disease until recently. The global spread of the disease has consequently created a cause for concern (Ahmed et al., 2022In a study by Banuet Martinez et al. (2023), the ecological discovery of the disease was first reported in 1959 in cynomolgus monkeys and was thus named 'monkeypox'. The disease was found to have similar structural features as orthopoxviruses: rectangular with diameter 200–250 μm. It was also observed to present similarly to variola-vaccinia viruses and exhibited a similar serological relationship. In the 1960s, four mpox outbreaks were recorded in animals with no recorded infections in humans. In 1966, an mpox outbreak occurred in a zoo and was believed to have been caused by two imported anteaters. The 1966 zoo outbreak had a particularly high mortality rate. Despite containment procedures, mpox spread to nearby enclosures, resulting in 23 animal infections and a total of 11 deaths, including 6 out of 10 infected orangutans.

The first human mpox case was reported in 1970 in a 9-month-old baby in the Democratic Republic of Congo. Smallpox vaccination is postulated to provide cross-immunity against MPXV, and a third-generation vaccine, named Jynneos, has been approved for preventing smallpox and mpox. But the efficacy of this vaccine in people remains inconclusive due to the lack of smallpox cases. In recent decades, smallpox vaccinations have only been implemented in small-scale populations, such as US military recruits and specific scientific researchers, and thus the majority of the global population are expected to be susceptible to MPXV infection (Pengfei et al., 2023).

The mpox disease has steadily emerged in Central, East, and West Africa, following the eradication of smallpox and the end of smallpox vaccination in 1980(Ajayi et al., 2023). Studies have revealed that the variola virus (smallpox virus) is closely related, and monkeypox disease results in a smallpox-like disease. Historical data have indicated that smallpox vaccination with vaccinia virus (another orthopoxvirus) was approximately 85% protective against monkeypox. However, following the eradication of smallpox, routine vaccination against smallpox was no longer indicated, and it has now been four decades since any orthopoxvirus vaccination program (Bunge et al., 2022). Since then, thousands of cases have been reported in the Democratic Republic of Congo. However, in 2017, mpox re-emerged in Nigeria (Ajayi et al., 2023). The mpox virus (MPXV), which was hitherto largely limited to some Central and West African countries, was declared a public health emergency of international concern by the WHO on July 23, 2022, following the rapid spread of the virus to non-endemic countries (Awoyomi et al., 2023).

There are two distinct clades of the virus: clade I (with subclades Ia and Ib) and clade II (with subclades IIa and IIb) (WHO,2024). Phylogenetic evidence shows that two separate genetic clades of MPXV exist: the Central African/Congo Basin (MPXV-ZAI-V79) and the West African (MPXV-COP-58) clades; with the former being more transmissible and virulent. However, in most mpox endemic countries consisting of multiple African countries, including Benin, Cameroon, the Central African Republic, the Democratic Republic of the Congo, Gabon,

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Ivory Coast, Liberia, Nigeria, the Republic of the Congo, Sierra Leone, and South Sudan of Africa,(Banuet-Martinez et al., 2023) infections with both virus variants have been reported (Bunge et al., 2022).

Nigeria has the highest reported cases (842) of Mpox in Africa as of 19 May 2023, followed by DRC (739), Ghana (27), Central African Republic (30), and Cameroon (29). Since the re-emergence of the disease in Nigeria between September 2017 and August 7, 2022, a total of 985 suspected Mpox cases have been reported, with 398 (40.4%) confirmed and 12 deaths (Cadmus et al., 2024). According to WHO, Africa reported 34,273 confirmed mpox cases and 158 deaths from January 1 to September 14, 2025. The continent saw ongoing active transmission in 19 countries during the previous six weeks. The overall case fatality rate (CFR) in Africa was approximately 0.5%, though some countries experienced higher CFRs. (WHO, 2025) According to the WHO regional situation reports of 30th August 2024, Nigeria, between epidemiological weeks 1 to 34 in 2024 (ending 25 August), reported a total of 868 suspected cases of mpox across thirty-three states and the Federal Capital Territory (FCT). During this period, with clade IIb circulating, forty-eight confirmed cases were identified in nineteen states and the capital.

In week 34 (ending 25 August 2024), Nigeria recorded fifty-seven new suspected cases and eight confirmed cases (from 15 states and FCT) compared with 25 suspected cases with one confirmed positive reported in week 33 (12-18 Aug 2024) (from 5 states). Bayelsa state reported the highest number of confirmed cases (5), followed by Cross River, Akwa Ibom, and Enugu, each with four confirmed cases. Overall, since the re-emergence of Mpox in September 2017, a total of 4685 suspected cases have been reported from 36 States and FCT in the country. Of these cases, 1134 (24%) were confirmed (with males predominantly affected) from 35 States and FCT. seventeen (17) deaths have been recorded since the re-emergence in 2017. Although MPX is not a new disease and is rarely fatal, the current multi-country MPX outbreak is unusual because it is occurring in countries that are not endemic for MPXV (Hatmal et al., 2022). The major clinical signs and symptoms include fever, intense headache, lymphadenopathy, back pain, myalgia, intense asthenia, maculo-papular rash, vesicles, pustules, and crusts. There are four stages of the rashes: macular (a flat lesion), papula (an elevated lesion), vesicular (a fluid-filled lesion) and pustular (an inflamed, pus-filled lesion) and scab and flake appears afterwards. It has an incubation period of 5-21 days, and it is a self-limiting disease with the symptoms lasting for 2 to 4 weeks (Ajayi et al., 2023).The disease spreads through direct close contact with infectious rash, scabs, body fluids, and respiratory secretions. Vertical transmission of mpox from an infected pregnant mother to her unborn child can also occur (Ajayi et al., 2023).

As crowded places, schools are highly likely to cause an Mpox outbreak among students through long-term close contact. Understanding university students' perceptions about Mpox and willingness to vaccinate play a vital role in implementing preventive measures in schools (Wang et al., 2024). MPXV is thought to not easily spread between people, but spreads through close contact, for example, with skin lesions, body fluids, respiratory droplets, and contaminated materials. However, this assumption fails to explain why cases rose rapidly in the initial phase of the outbreak and now are declining, and more strikingly, the vast majority of cases identified so far have been men who have sex with men (MSM) (Pengfei et al., 2023).

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STATEMENT OF PROBLEM

The steady increase in the number of Mpox cases in Nigeria reflects the importance of early awareness and prevention of the disease and other related infections. Sadly, many regions in the country, struggle with challenges such as poverty, limited access to healthcare facilities, and insufficient disease surveillance systems. These factors create an environment conducive to the transmission of infectious diseases, including mpox. The lack of awareness and stigma surrounding the disease, further complicates efforts to control its spread. The Nigeria Centre for Disease Control (NCDC) has noted that many affected individuals are young adults, with a sizable proportion being men who have sex with other men. By 2030, the target date for the sustainable development goals, the number of youths is projected to have grown by 7 per cent, to nearly 1.3 billion. This will account for one out of every five people (UN, 2020). The university population is largely made up of youths.

Students of basic medical sciences are usually at a substantial risk of any disease outbreak due to persistent close contact and relationships amongst them. Thus, it is essential that they are prepared and properly equipped with the necessary knowledge and if possible, resources to keep themselves and the community safe. Their susceptibility is further heightened by exposure on school trips and events which are usually crowded. The Nigerian healthcare system currently faces issues which include understaffing, underfunding which makes limited resources available to combat a possible outbreak. Amongst the youth population, future health professionals would emerge who must be adequately equipped with the right knowledge to preserve the health of the nation and the world at large.

Studies have consistently shown that university students possess varying levels of knowledge regarding monkeypox. For instance, a cross-sectional study conducted among Bangladeshi university students revealed significant gaps in knowledge about the disease's transmission, symptoms, and preventive measures. While many students recognized the disease's name and basic characteristics, a substantial percentage were unsure about the availability of vaccines and modes of transmission (Islam et al., 2022). Factors influencing knowledge levels include demographic variables such as age, gender, and academic major. For example, older students and those from medical backgrounds tended to demonstrate higher levels of knowledge compared to their younger or non-medical counterparts (Doan et al., 2024).

OBJECTIVES OF THE STUDY

1. To ascertain knowledge about human monkeypox amongst faculty of basic medical sciences students.
2. To evaluate faculty of basic medical sciences students' level of preparedness towards the outbreak of monkeypox

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METHOD

This study adopted a descriptive cross-sectional research design to evaluate the variation in monkeypox awareness and preparedness amongst future health professional. Descriptive design is use to describe systematically and accurately the fact and characteristics of a given population or area of interest. It also provides an accurate account of characteristics of a particular individual, situation or group; it is a means of discovering new meaning, describing what exist and determining the frequency with which something occur and categorizing information (Alieto et.al 2024). The total population size is 1000.The sample size was calculated using Taro Yamane formula to be 315. Respondents in this study were selected using simple random sampling technique. This technique ensures that each participant from the target population was selected in a random manner, with each member of the population having an equal chance of being selected. It also helped to reduce potential bias and increase generalizability of the findings. The instrument used for this research was an adapted questionnaire which was properly scrutinized by research supervisor. Reliability of research study was ensured through various way of which one is avoidance of jargons or misleading questions that can confuse the respondent and also precise attention was given to the tone of questions in the questionnaire. This approach reduced error and improved the reliability of the instrument. Analysis was done with Statistical Package for the Social Sciences (SPSS) software version.

RESULT

Table 1: Socio-demographic Characteristics (n = 315)

Demographic Characteristics	Variables	Frequency	Percentage
Age	15–19 years	117	37.1
	20–24 years	186	59.0
	25–30 years	12	3.8
Gender	Female	255	81.0
	Male	60	19.0
Field of Study	Nursing	309	98.1
	Nutrition and Dietetics	3	1.0
	Physiology	3	1.0
Academic Level	Undergraduate (Year 1–3)	174	55.2
	Undergraduate (Year 4–5)	141	44.8

Table 1 shows that more than half of the respondents were aged 20-24 years 186 (59.0%), mostly females 255 (81.0%), in nursing department 309 (98.1%) and currently in 100-300 level 174(55.2%).

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Table 2: Awareness of Monkeypox (n = 315)

Awareness of Monkey Pox	Variables	Frequency	Percentage
Attended training/lecture/conference on monkeypox	Yes	21	6.7
	No	294	93.3
Ever heard about monkeypox	Yes	288	91.4
	No	27	8.6
Aware of recent global outbreak of monkeypox	Yes	144	45.7
	No	171	54.3
Aware of monkeypox management protocols in healthcare settings	Yes	60	19.0
	No	255	81.0

Table 2 shows that vast majority of the respondents had not attended training, lecture or conference on monkeypox 294 (93.3%). Vast majority 288 (91.4%) have heard about monkeypox but not aware of recent global outbreak of monkeypox 144 (45.7%) and management protocols in healthcare settings 255 (81.0%).

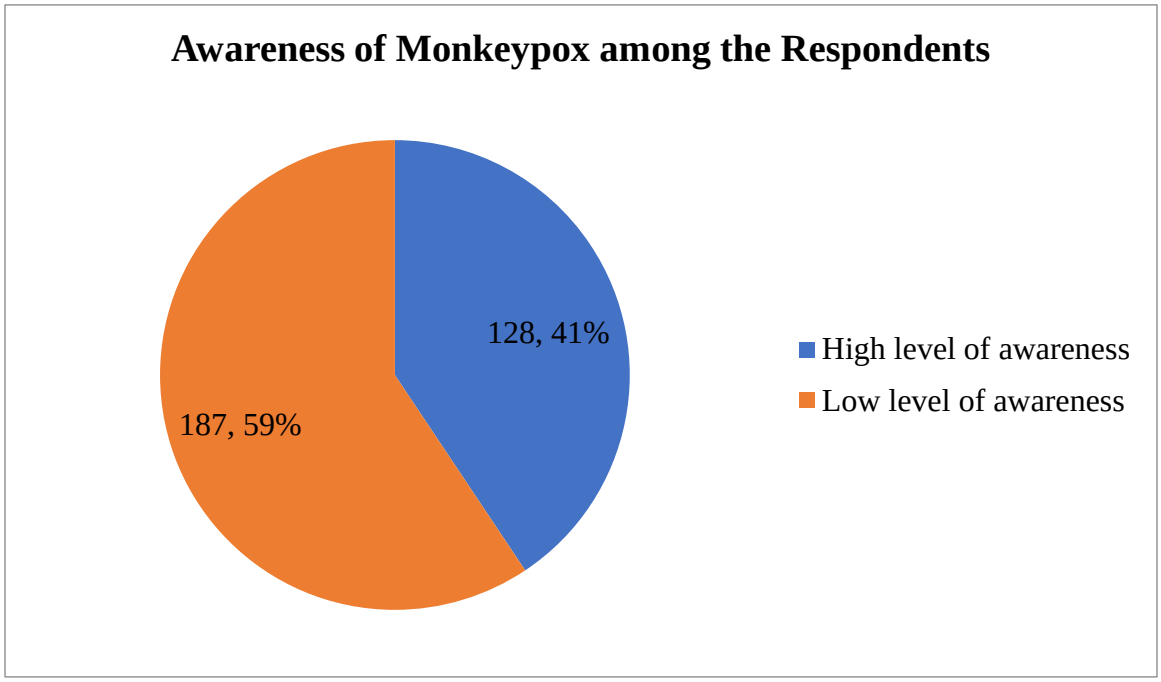

Figure 1: Awareness of Monkeypox among the Respondent
Figure 1 shows that majority of the respondents had low 187 (59.0%) level of awareness about Monkeypox.

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Table 3: Knowledge of Monkeypox (n = 315)

Knowledge of Monkeypox	Variables	Yes	No
		F (%)	F (%)
Mode of transmission of monkeypox	Contact with infected animals or secretions	279 (88.6)	36 (11.4)
	Human-to-human transmission	165 (52.4)	150 (47.6)
	Vertical transmission (mother to child)	51 (16.2)	264 (83.8)
	Sexual transmission	42 (13.3)	273 (86.7)
Symptoms of monkeypox	Fever and chills	153 (48.6)	162(51.4)
	Rash or skin lesions	273 (86.7)	42(13.3)
	Swollen lymph nodes	105 (33.3)	210(66.7)
	Muscle aches and fatigue	117 (37.1)	128 (62.9)
Vaccine availability for monkeypox		234 (74.3)	81 (25.7)
Monkeypox can be fatal in immunocompromised persons		306 (97.1)	9 (2.9)

Table 3 shows that majority of the respondents indicated that transmission of monkeypox is through contact with infected animals or secretions 279 (88.6%) as well as human-to-human transmission 165 (52.4%). Synptoms of monkeypox indicated include rashes and skin leison 273 (86.7%), while less than half indicated fever and chills 153 (48.6%), swollen lymph nodes 105 (33.3%), muscle aches and fatigue 117 (37.1%). Majority also were aware of availability of vaccine for monkeypox 234 (74.3%) and believed that monkeypox is fatal in immunosuppressed persons 306 (97.1%).

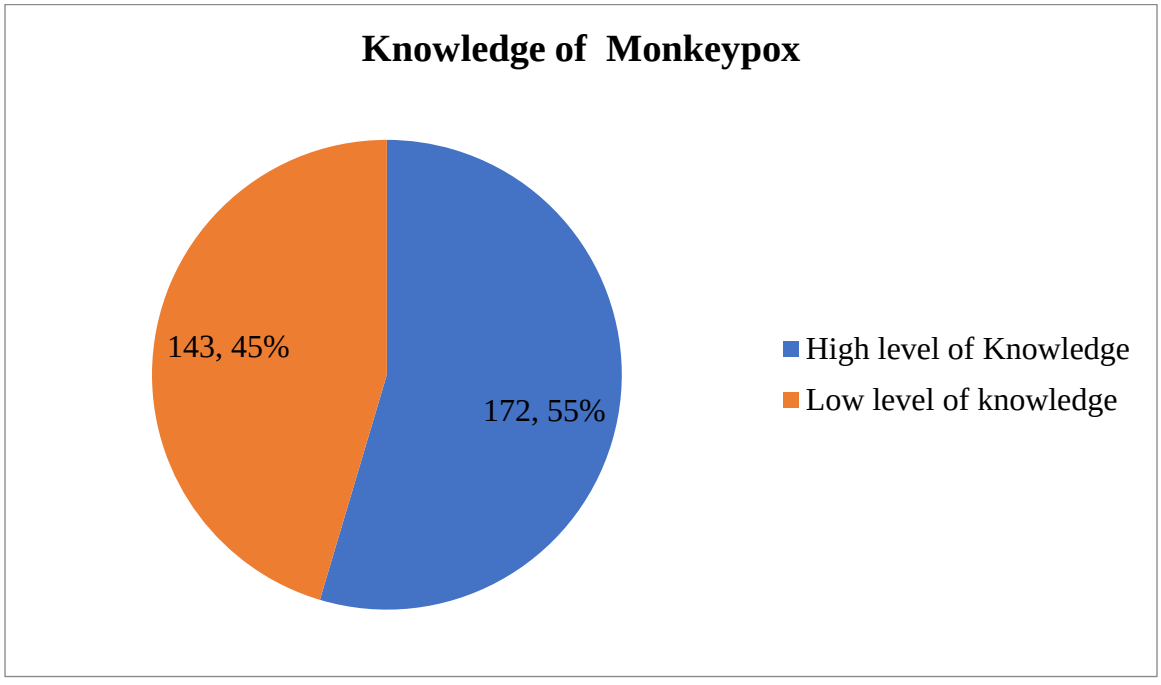

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Figure 2: Knowledge of monkeypox

Figure 2 shows that slightly above half of the respondents had high 172 (55.0%) level of knowledge about monkeypox

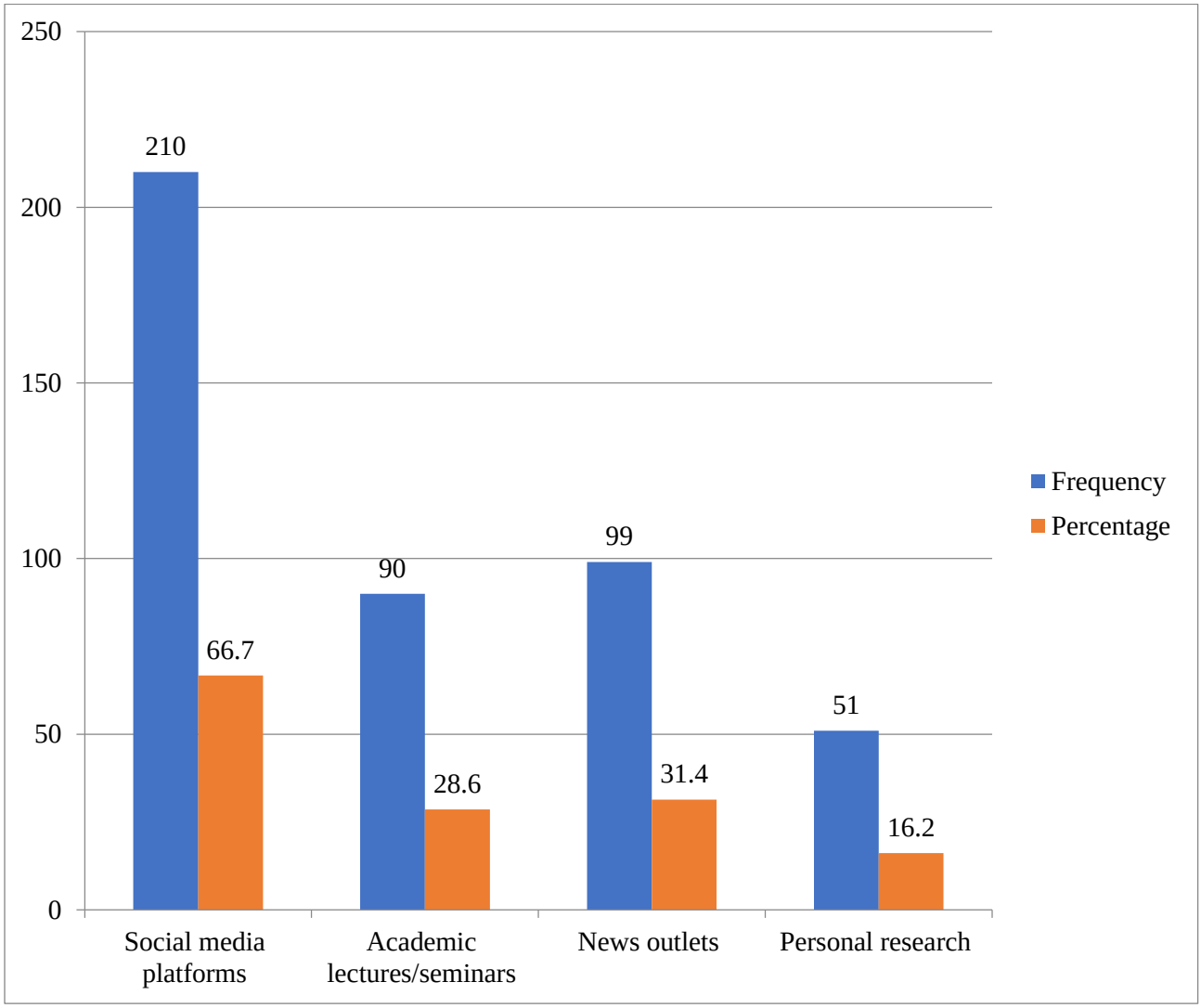

Figure 3: Source of Information about Monkeypox (n = 315)

Figure 3 shows that vast majority of the respondents heard about monkeypox through social medial platforms 210 (66.7%).

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Table 4: Monkeypox Preparedness

Demographic Characteristics	Variables	Frequency	Percentage
Confidence in diagnosing monkeypox	Not confident	162	51.4
	Somewhat confident	120	38.1
	Very confident	33	10.5
Institutional training on monkeypox prevention/management	Yes	30	9.5
	No	285	90.5
Institutional plans/resources for monkeypox outbreak	Yes	69	21.9
	No	246	78.1
Willingness to join a monkeypox outbreak response team	Yes	228	72.4
	No	87	27.6
Willingness to work in isolation wards	Yes	150	47.6
	No	165	52.4
Concern for personal/family safety affecting willingness to respond	Yes	258	81.9
	No	57	18.1
Belief that stigma affects monkeypox reporting/management	Agree	156	49.5
	Disagree	6	1.9
	Neutral	54	17.1
	Strongly agree	96	30.5
	Strongly disagree	3	1.0
Importance of educating healthcare professionals	Not important	48	15.2
	Slightly Important	18	5.7
	Moderately Important	24	7.6
	Highly important	30	9.5
	Extremely important	195	61.9

Table shows that more than half of the respondents are not confident in diagnosing monkeypox while 120 (38.1%) were somewhat confident. Vast majority 285 (90.5%) had not received any institutional training on monkeypox prevention and management, no institutional plans or resources for monkeypox 246 (78.1%). However, majority were willing to join monkeypox outbreak response team but not willing to work in isolation wards 165 (52.4%).willing to work in isolation wards 165 (52.4%).

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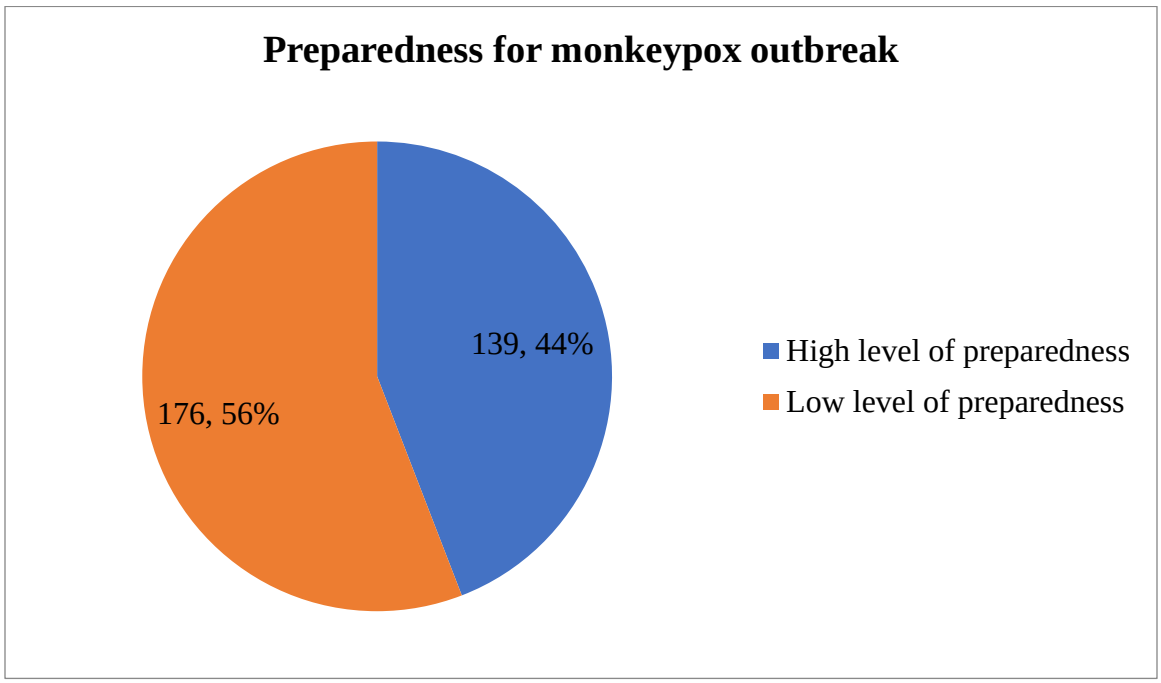

Figure 4: Level of preparedness of Monkeypox among the respondents

Figure 4 shows that less than half 139 (44.0%) of the respondents had high level of preparedness for monkeypox outbreak.

Table 5 Association between awareness, knowledge and preparedness towards monkeypox outbreak

Correlations				
		Awareness	Knowledge	Preparedness
Awareness	Pearson Correlation	1	.749**	.925**
	Sig. (2-tailed)		.000	.000
	N	315	315	315
Knowledge	Pearson Correlation	.749**	1	.810**
	Sig. (2-tailed)	.000		.000
	N	315	315	315
Preparedness	Pearson Correlation	.925**	.810**	1
	Sig. (2-tailed)	.000	.000	
	N	315	315	315
**. Correlation is significant at the 0.01 level (2-tailed).				

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Pearson correlation analysis shows strong, positive, and statistically significant relationships between awareness, knowledge, and preparedness ($p < 0.01$). Awareness is highly correlated with preparedness ($r = 0.925$) and knowledge ($r = 0.749$), while knowledge also shows a strong correlation with preparedness ($r = 0.810$). This indicates that higher levels of awareness and knowledge are associated with increased preparedness as shown in Table 5

DISCUSSION

General Knowledge and Attitudes

Studies across Nigerian and global university populations reveal a high level of baseline awareness of Mpox, largely driven by social media, recent outbreaks, and university communication channels. For instance, more than 90% of surveyed students had heard about monkeypox prior to formal instruction, and 60–80% understood basic symptoms and transmission modes. Across both Adeleke University and Osun State University, the level of awareness was slightly higher than national averages, likely due to proactive institutional engagement.

However, the depth of knowledge particularly on issues such as zoonotic origins, novel clade biology, the rationale behind specific measures, and the availability/efficacy of vaccines was variable. On average, only 37–45% of respondents could correctly answer detailed clinical or transmission scenario questions, mirroring findings from systematic reviews covering Africa, Asia, Europe, and the Americas (mean 'good knowledge' among HCWs globally 26%, with Africa at 17.1%).

Table 6: Mpox Knowledge Rates among Future Health Professionals

Continent / Region	'Good Knowledge' (%)	Source
USA	46.7	
Europe	32.5	
Asia	26.1	
Africa	17.1	
Nigeria (students)	39–78	
Adeleke/Osun	35–60 (projected)	Case study

Differences were observed by gender, age, year in program, and previous exposure to outbreak training. Female students and those in more advanced years often showed higher knowledge and

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more positive attitudes. Students with prior epidemic response training or KAP-based simulation exposure consistently outperformed peers.

Attitudinal Variations

Attitude towards monkeypox among university students was generally positive, yet some gaps emerged. Many students demonstrated readiness to recommend or participate in preventive measures (such as vaccination, isolation, and reporting), but stigma attached to suspected cases and skepticism about the practicality of rapid response systems were recurrent challenges.

Approximately half of respondents believed a monkeypox outbreak in their setting would be severe and challenging to control. Fear of social isolation (among suspected cases) and worry about the adequacy of institutional support were also significant.

Practice and Behavioural Intentions

When analysed via the KAP framework, the proportion of students engaging in recommended practices (reporting symptoms, using PPE in simulation, educating peers, volunteering in campus screening) was lower than for knowledge/attitude typically in the 25–40% range.

Institutional and Environmental Determinants

Adeleke and Osun State universities each exhibited an institutional readiness relatively advanced compared to many peer institutions in Nigeria, attributable to the:

- Integration of emerging infectious disease training into curricula
- Investment in student health centers and simulation laboratories
- Institutional links with NCDC response networks

Nevertheless, periodic shortages in PPE, delays in outbreak reporting during holiday periods, and variability in faculty engagement across departments created preparedness disparities. These findings are consistent with broader Nigerian, African, and global trends.

Role of Information Sources and Social Context

Social media and informal networks have become dominant sources of information about emerging infectious diseases, including Mpox. While this rapid dissemination enables higher baseline awareness, it also amplifies misinformation and confusion over official guidance. Students relying on professional/scientific sources (university websites, NCDC bulletins, WHO materials) were significantly more knowledgeable and more likely to report positive attitude and practice scores than those dependent on general or peer-driven platforms.

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Psychosocial and Cultural Factors

The perceived stigma of infectious diseases, including psychological distress among patients and isolation measures, presents a moderating barrier to practice adoption. Cultural conceptions of illness, as well as context-specific biases (e.g., association of monkeypox with particular lifestyles or regions) influence both self-efficacy and willingness to report or engage in public health responses. Female students at both universities, and those from more urban backgrounds, reported both higher perceived risk and, paradoxically, greater willingness to take protective actions.

Training, Simulation, and Self-Efficacy

Self-efficacy, largely shaped by exposure to training (simulation, drills, COVID-19 response experience), was a strong positive predictor both of knowledge retention and practical engagement. However, a significant minority reported lack of confidence in diagnosing atypical presentations or managing psychological fallout from outbreaks.

National and Global Systemic Gaps

The recurrence of outbreaks and expansion of virulent strains (e.g., clade Ib) in Nigeria and elsewhere in Africa highlight persistent shortfalls in surveillance, diagnostic capacity, vaccine accessibility, and rapid deployment of resources. Adequate preparedness at the university level depends on the seamless integration of local actions with broader national and international frameworks, a gap that remains only partially bridged.

The sources from which students obtain information about monkeypox significantly impact their KAP levels. Studies indicate that university students primarily rely on the internet and mass media for health information. While these platforms can provide timely updates during outbreaks, they also pose risks due to the potential spread of misinformation (Doan et al., 2024). Educational institutions play a critical role in providing accurate information through workshops and seminars aimed at enhancing student awareness. The literature indicates that there are notable variations in knowledge, attitudes, and practices regarding monkeypox among university students. Factors such as demographic characteristics and information sources significantly influence KAP levels. To enhance preparedness for potential outbreaks, targeted educational interventions are essential. Future research should focus on longitudinal studies to assess changes in KAP over time and evaluate the effectiveness of specific health promotion strategies tailored to university populations.

CONCLUSION

Despite high levels of reported awareness amongst future health professional students at Adeleke and Osun State universities, significant gaps persist in detailed knowledge, practical skills, and actual engagement in sustained preventive behaviors. The disconnect between knowledge, intent, and practice is not unique to Nigeria but reflects a consistent global challenge and this implies that Curricula must be routinely evaluated and adapted to ensure not just factual teaching but behavioral skill-building especially in the domains of risk communication, patient interaction,

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and outbreak response simulation. The results from Adeleke University and Osun State University mirror both Nigeria's and global experiences: preparedness is improving but remains insufficiently robust to face rapidly evolving threats. The opportunity and obligation exists to strengthen training, adapt curricula, reduce barriers, and invest in population-wide and professional education, especially for the next generation of health professionals who will be at the forefront of responses.

Ethical clearance

Ethical consent was sought and obtained from the participants used in this study. They were made to understand that the exercise was purely for academic purposes, and their participation was voluntary.

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Conflict of interest

All authors contributed positively to the writing of this manuscript and there is no conflict interest as to the content of this research.

Authors' contributions

All authors participated in the compilation, collection, analysis and publication of manuscript.

Availability of data and materials

All analysed data during this study are included in the published article.

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REFERENCES

Ahmed, S., Hassan, M.M., Khan, F., Sultan, A., & Shah, M.S. (2022). The Mpox Disease: Awareness and Apprehensions among the Medical Undergraduates and Nursing Staff. Journal of Pure and Applied Microbiology.

Ajayi, Paul Oladapo1; Esan, Deborah Tolulope2; Ipinnimo, Tope Michael3; Olanrewaju, Moronkeji Temitope4; Solomon, Oluremi Olayinka1; Atanda-Owoeye, Olajumoke Oyewumi5. Knowledge and awareness of human mpox infection among healthcare workers: A cross-sectional study in southwestern Nigeria. Asian Pacific Journal of Tropical Medicine 16(6): p 245-252, June 2023. | DOI: 10.4103/1995-7645.378566

Awoyomi OJ, Njoga EO, Jaja IF, Oyeleye FA, Awoyomi PO, et al. (2023) Mpox in Nigeria: Perceptions and knowledge of the disease among critical stakeholders—Global public health consequences. PLOS ONE 18(3): e0283571. https://doi.org/10.1371/journal.pone.0283571

Banuet-Martinez, M., Yang, Y., Jafari, B., Kaur, A., Butt, Z. A., Chen, H. H., Yanushkevich, `S., Moyles, I. R., Heffernan, J. M., & Korosec, C. S. (2023). Monkeypox: a review of epidemiological modelling studies and how modelling has led to mechanistic insight. *Epidemiology and infection*, *151*, e121. https://doi.org/10.1017/S0950268823000791

Bunge EM, Hoet B, Chen L, Lienert F, Weidenthaler H, et al. (2022) The changing epidemiology of human monkeypox—A potential threat? A systematic review. PLOS Neglected Tropical Diseases 16(2): e0010141. https://doi.org/10.1371/journal.pntd.0010141

Cadmus, S., Akinseye, V., Besong, M. Tobi Olanipekun, John Fadele,Eniola Cadmus,

Doan, D.A., Nguyen, T.T.X., Le, G.B, Trinh Lan Phuong, Phuong Lan Nguyen, Dai Xuan Dinh. Knowledge and attitudes of medical and pharmacy university students regarding monkeypox: a multicenter, cross-sectional study in Vietnam. *BMC Med Educ* 24, 807 (2024). https://doi.org/10.1186/s12909-024-05805-4

Hatmal, M. M., Al-Hatamleh, M. A. I., Olaimat, A. N., Ahmad, S., Hasan, H., Ahmad Suhaimi, N. A., Albakri, K. A., Abedalbaset Alzyoud, A., Kadir, R., & Mohamud, R. (2022). Comprehensive literature review of monkeypox. Emerging microbes & infections, 11(1), 2600–2631. https://doi.org/10.1080/22221751.2022.2132882

Islam, M. A., Sathi, N. J., Setu, S. P., Nahar, M. T., Khan, M. N. A., Hasan, M., Khan, A., Hossen, M. M., Nibir, M. M., Khan, B., Ali, M. S., Ali, H. M., Islam, M. N., & Hossain, M. T. (2023). Knowledge, attitude, and practice of university students towards monkeypox in Bangladesh. *PloS one*, *18*(10), e0287407. https://doi.org/10.1371/journal.pone.0287407

Jairoun, A. A., Al-Hemyari, S. S., Abdulla, N. M., El-Dahiyat, F., Shahwan, M., Hassan, N., Jairoun, O., Dr, Alyousef, N. G., Sharif, S., & Jaber, A. A. S. (2022). Awareness and preparedness of human monkeypox outbreak among university student: Time to worry or one to ignore?. *Journal of infection and public health*, *15*(10), 1065–1071. https://doi.org/10.1016/j.jiph.2022.08.015

Pengfei Li, J., Li, J., Ayada, I., Avan, A., Zheng, Q., Peppelenbosch, M. P., de Vries, A. C., & Pan, Q. (2023). Clinical features, antiviral treatment, and patient outcomes: A systematic review and comparative analysis of the previous and the 2022 Mpox outbreaks. *The Journal of Infectious Diseases*, *228*(4), 391-401. https://doi.org/10.1093/infdis/jiad034

Precious, N. D., Agboola, P., Oluwatimilehin, O., Olakunle, O. K., Olaniyi, P., Adiatu, A. I., Olusogo, A. P., Obiwulu, D. J., Adeola, O. A., Ebubechukwu, E. S., Oluwakayode, A. M., Akano, O. S., & Kolawole, Q. O. (2023). Re-emergence of monkeypox virus outbreak in Nigeria: epidemic preparedness and response (Review-Commentary). *Annals of medicine and surgery (2012)*, *85*(8), 3990–3996. https://doi.org/10.1097/MS9.0000000000001069