

IMPACT OF LECTURER-STUDENT RELATIONSHIP ON STUDENT ACADEMIC PERFORMANCE IN YUSUF MAITAMA SULE UNIVERSITY KANO

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ABSTRACT

Meningitis, Knowledge, Perception, Awareness, University Students, Yusuf Maitama Sule University Kano, Public Health, Developing Countries, Health Education, Preventive Measures.

Original research



Meningitis remains a significant global health concern, particularly in developing countries where it can lead to severe consequences, including death. This case study examines the knowledge, perception, and awareness of meningitis among students at Yusuf Maitama Sule University Kano (YUMSUK), an educational institution with a diverse student population. The study utilizes a cross-sectional survey design, gathering data from 200 undergraduate students through structured questionnaires. The research objectives include evaluating students' knowledge of meningitis, exploring their perceptions and attitudes towards individuals with the disease, and assessing their overall awareness of diagnostic tests, treatment options, and vaccination programs. Findings reveal varying levels of understanding, with notable gaps in knowledge about transmission routes, risk factors, and preventive measures. Additionally, some misconceptions and stigma towards those affected by meningitis were identified. The study underscores the need for targeted health education programs to enhance awareness and reduce the disease's burden within the university community. The implications of these findings are discussed, and recommendations are made for future awareness campaigns, curriculum integration, and further research on meningitis among university populations.

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1. INTRODUCTION

1.1 Background

Meningitis is the inflammation of the tissue surrounding the brain and spinal cord which is usually caused by infection. It can be fatal and requires immediate medical care. It remains a significant global health concern (La Russa et al., 2020; Kohil et al., 2021; Barichello et al., 2023). The disease affect people of any age, but young children are most risk (Martinez et al. 2020; Bhopal et al., 2021). Newborn babies are at most risk from group B.Steptococcus and Haemophilus influenza (Del Bino et al., 2022). It's usually manes to 1/1000 population in

district in countries in the Sahel mostly existing in the developing world.

Evidence exist that illness that forces households to pay out of pocket may push a family into cycle of poverty from which its difficult to emerged, while awareness and knowledge about meningitis are crucial to prevention and management most especially in the developing world, there may be various in understanding and perception among different population including university students (Aye et al., 2020; Whisnant et al., 2022). For this case, study aims to assess the knowledge, perception and awareness of meningitis among students of Yusuf Maitama Sule University Kano (YUMSUK).

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1.2 Research Objectives

The main objectives of this case study are:

1. To evaluate the level of knowledge among YUMSUK students towards meningitis including its transmission risk factors, symptoms and preventives measures.
2. To explore the perception and attitude of YUMSUK students towards individual with meningitis including any existing stigma or misconceptions.
3. To determine the overall awareness of meningitis among YUMSUK students, including familiarity with available diagnostic test, treatment option and vaccination programs.

1.3 Rationale

YUMSUK is a diverse educational institution with students from various background and regions. Understanding the level of knowledge, perception and awareness of meningitis among the students population can help tailor targeted health education programs and intervention to improve overall awareness and reduce the burden of the disease.

1.4 Scope and Limitation

This case study will limited only on undergraduate students of YUMSUK and will be limited to only main campus. The limitation includes relatively small sample size and the potential for bias due to the convenience sampling method.

1.5 Organization of the Study

The case study will be organized into five chapters. Chapter one presents the introduction, background, research objectives, rationale scope and limitation. Chapter two will consists literature review on meningitis, knowledge perception and awareness among various population in YUMSUK. Chapter three will describe the research methodology study design, sampling technique, data collection tools and data analysis plan. Chapter four, data analysis and chapter five will be the conclusion, recommendation for future awareness campaign and educational initiatives.

The Research will adhere to ethical guideline, ensuring participation confidentiality voluntary participation and informed consent. Approval will be sought from the university Institution Review Board (IRB) before conducting.

2. LITERATURE REVIEW

Meningitis is a major public health concern developing countries and understanding the knowledge, perception and awareness of this disease among specific population is crucial for effective preventing and management effort. In this literature review, we will explore previous studies that have investigated meningitis knowledge, awareness among university students with a focus on relevant

publication (Adedin et al., 2020; Schiess, et al. 2021; Ballalai et al., 2023; Herrera-Restrepo et al., 2024).

2.1 Meningitis knowledge among university students

Several studies have examined the level of knowledge about meningitis among university as students awareness week a predominantly digital campaign which is held every October as a MARM university whilst it is often the responsibility of students services or raise awareness of meningitis to Northern Ireland University Int. J.A. Adolescent Medical Health (2017) Jan. 18 in Nigeria has implemented intervention to combat meningitis including introducing preventive campaign at various universities in Nigeria (WHO) <http://www.whohealthtopicmeningitis.com>.

2.2 Perception and Attitude

A research on altitude and practices of people in a meningitis endemic area in the upper east region of northern Ghana to identify social, economic and behavioral factors that may contribute to disease transmission, it describe meningitis has a significant impact in the Sahel but the mechanism for transmission and factors determining a person vulnerability.

2.3 Awareness of Meningitis Diagnosis

The test and treatment initial diagnosis of meningitis can be made by clinical examination followed by a lumbar puncture; the bacteria can sometimes be seen in microscopic examination of the spinal fluids. The identification of the scrogroups and susceptibility to antibiotics are important to control measurement.

Treatment: Meningitis caused by viruses or bacteria can have similar symptoms meningitis can vary in severity apputecene depending on the cause prevention vaccine can prevent meningitis caused by meningococuneumococcus, haemophilus. Effectiveness of educational intervention several intervention has been made (WHO) awareness campaign on the effect of meningitis which was introduced in Nigeria.

3. RESEARCH METHODOLOGY

3.1 Research Design

This mini project adopts a cross sectional survey design to collect data a specific point in time the cross sectional approach allows us to assess the knowledge perception and awareness of meningitis among the students of Yusus Maitama Sule University Kano (YUMSUK) efficiently. By using a structured questionnaire will gather data on various aspects related to Meningitis and allowing for an in-depth analysis of the students understanding and attitude towards the disease.

3.2 Study Settings

The study will be conducted at Yusus Maitama Sule University Kano (YUMSUK) which is a diverse educational institution located in Kano, Nigeria. The

main campus of YUMSUK will be the primary settings for data collection.

3.3 Sample Selection

A convenience sampling technique will be employed to select the participants. Given the limited scope and resources of this mini project under this method, undergraduate students aged 18 to 35 years enrolled at Yusuf Maitama Sule University Kano (YUMSUK) voluntarily participated in the study.

3.4 Sample Size

The study aims to collect data from a minimum of 100 undergraduate students in Yusuf Maitama Sule University Kano (YUMSUK). This sample size is considered appropriate for the mini project, providing sufficient data for analysis while considering practical constraints.

3.5 Data Collection Instrument

A structured questionnaire will be developed to gather data on knowledge, perception and awareness of meningitis among the participant. The questionnaire will consist of both closed ended and Likert Scale questions, focusing on the following key areas:

1. **Knowledge:** Question will assess participants understanding of meningitis transmission and preventive measure.
2. **Perception and attitude:** Participant will be asked to express their attitude and perception toward individuals with meningitis including any existing stigma or misconceptions.
3. **Awareness:** Participant will be asked about their awareness of available diagnostic test treatment option and vaccination program for meningitis. The questionnaire will be pilot tested on a small group of students to ensure its clarity, relevance and appropriateness for the target population. Necessary adjustment will be made based on the pilot study feedback.

3.6 Data Collection Procedure

Data collection will be carried out by trained research assistant, the researchers will approach potential participant on the YUMSUK Campus and provide them with information about the study's purpose and voluntarily participation.

Participant who expresses their willingness to participate will be given the questionnaire to complete at convenience time.

3.7 Data Analysis

Quantitative data collected from the questionnaire will be entered into a statistical software package for analysis. Descriptive statistics such as frequencies and percentage will be used to summarize the participant responses regarding knowledge, perception and awareness of meningitis.

3.8 Ethical Consideration

This study will adhere to ethical guidelines to ensure participant rights and confidentiality. Informed consent will be obtained from each participant before data collection.

3.9 Limitations

The convenience sampling method, the relatively small sample size may limit the generalized ability of the findings beyond the Yusuf Maitama Sule University Kano (YUMSUK) population additionally self reported data may be subject to response bias.

4. DATA ANALYSIS AND FINDINGS

4.1 Data Analysis

The data collected from the completed questionnaire will be entered into a statistical software package for analysis. Descriptive statistics including frequencies percentages means and standard deviation will be used to summarize the participant's responses regarding knowledge, perception and awareness of meningitis.

4.2 Demographic Characteristics

Demographic characteristics of the participation such as age, gender, educational level and prior exposure to meningitis will be presented using descriptive statistics (Tables 1-4). This will provide a profile of the participant and allow us to understand any potential variations in knowledge and awareness based on demographic factors.

Table 1. Age groups of the Respondents

Age (Years)	Frequency	Occurrence %
11 – 15	-	-
16 – 20	20	10%
21 – 25	80	40%
26 – 30	70	35%
31 – 35	20	10%
35 – 40	10	5%
Total	200	100%

Table 2. Gender of the Respondents

Gender	Frequency	Occurrence %
Male	178	89%
Female	22	11%
Total	200	100%

Table 3. Faculty of the Respondents

Faculty	Frequency	Occurrence %
Education	70	35%
Science	30	15%
Medical Science	38	19%
Humanities	22	11%
SMS	40	20%
Total	200	100%

Table 4. Level of the study of Respondents

Level of Study	Frequency	Occurrence %
100	12	6.0%
200	62	31.0%
300	91	45.5%
400	35	17.5%
500	-	-
Post Graduate	-	-
Total	200	100%

4.3 Knowledge of Meningitis

The analysis will focus on participant responses regarding meningitis including transmission route, risk factors symptoms and preventive measures the level of

correct response for each questions will be calculated and any misconception or gaps in knowledge will be identified (Table 5).

Table 5. Level of Awareness

Level of Awareness	Frequency		Occurrence	Sum of Occurrence
Aware about meningitis	Yes	159	79.5	100%
	No	41	20.5	
Method then which meningitis was learnt	School	48	24.5	100%
	Family	65	34.5	
	Social	37	18.5	
	Radio	54	17.0	
	Hospital	16	8.0	
Descriptive Meningitis	Infection	47	23.5	100%
	Bacteria	128	64.0	
	Cancer	12	6.0	
	Not sure	13	6.5	
Meningitis Transmitted	Sexual contact	44	22.0	100%
	Respiratory Droplet	86	43.0	
	During child birth	30	15%	
	Sharing of drinks	20	10%	
	Hand shaking	15	7.5%	
Awareness of preventive measures	Yes	169	84.5	100%
	No	31	15.5	
Preventive measures	Vaccine	92	46.0	100%
	Sexual protection	40	20.0	
	Avoid sharing items	22	11.0	
	Getting test	38	18.5	
	Not sure	9	4.5	

4.4 Perception and Attitudes

Perception attitude towards individual with meningitis and any existing stigma or misconceptions the Likert Scale responses will be summarized to gain insight into their perceptions and the findings will be presented in chart a graph for easy interpretation.

4.5 Awareness of Meningitis on Test and Treatment

Participant awareness of available diagnostics tests, treatment option and vaccination program for meningitis will be analyzed, assessing familiarity with specific test and treatment.

Table 6: Perception attitude toward people living with Meningitis

Perception Attitude	Frequency		Occurrence	Sum of Occurrence
Complete Cure	Yes	183	91.5	100%
	No	12	6.0	
	Not Sure	5	2.5	
Specific Treatment	Yes	185	92.5	100%
	No	4	2.0	
	Not Sure	11	5.5	
Comfortable living with meningitis	Yes	25	12.5	100%
	No	125	63.5	
	Not Sure	48	24.0	
Information about health topic	Health Professional	11.2	66.0	100%
	Internet	26	13.0	
	Social Media	15	7.5	
	Radio	34	17.0	
	Other source	30	14.0	
		30	14.0	

4.6 Factors Influencing Knowledge and Awareness

The data analysis will explore potential association between demographic factors (e.g. age, gender, educational level) and the level of knowledge and awareness of meningitis statistical test determine only significant different in responses based on this factors.

4.7 Limitation and Interpretation of Findings

The limitation of the study, including the small sample size and potential bias in the convenience sampling method will be discussed in this section the interpretation of the findings will be presented with a focus on their relevance to the Yusuf Maitama Sule University Kano (YUMSUK) population and the implication for future awareness and educational intervention (Table 6).

5. SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Summary of the Finding

This chapter will summarize the findings of the mini project on knowledge perception and awareness of meningitis among the students of Yusuf Maitama Sule University. It will provide an overview of the participant knowledge, their attitude toward meningitis and their awareness on test and treatment option.

5.2 Implication of Findings

The implication of the research findings will be discussed highlighting the importance of addressing knowledge gap and misconception through targeted awareness campaign and educational initiatives. The impact of negative

attitude toward meningitis prevention and management will also be emphasized.

5.3 Recommendation

Here based on the study, these recommendations may include:

1. **Public enlightenment programs:** The findings can inform the development of public enlightenment programs that focus on accurate information about meningitis, transmission and preventive measures.
2. **Integration into Curriculum:** In cooperation meningitis into the curriculum and other infections disease in other to avoid the prevalence of occurrence of the disease.
3. **Collaboration with health Care Professionals:** also can contribute to the effectiveness of awareness campaign and enhance knowledge dissemination.

5.4 Future Research

It may suggest investigatory the long term impact of educational intervention of meningitis among university students or comparing knowledge and awareness across different universities and regions.

5.5 Conclusion

This mini project deals with the significant and contribution to understanding knowledge and perception, awareness among the students of Yusuf Maitama Sule University, Kano and it emphasis the preventive measures and management of disease in the university setting and society/community at large.

References:

- Adedin, S. A., Alaba, O. A., & Alex-Ojei, C. A. (2021). Community perspectives and caregivers' healthcare practices and responses to the four major childhood killer diseases in Nigeria. *African Journal of Reproductive Health*, 25(6), 121-133.
- Aye, A. M. M., Bai, X., Borrow, R., Bory, S., Carlos, J., Caugant, D. A., ... & Zhu, B. (2020). Meningococcal disease surveillance in the Asia-Pacific region (2020): the global meningococcal initiative. *Journal of Infection*, 81(5), 698-711.
- Ballalai, I., Dawson, R., Horn, M., Smith, V., Bekkat-Berkani, R., Soumahoro, L., & Vicic, N. (2023). Understanding barriers to vaccination against invasive meningococcal disease: a survey of the knowledge gap and potential solutions. *Expert Review of Vaccines*, 22(1), 457-467.
- Barichello, T., Rocha Catalão, C. H., Rohlwick, U. K., Kuip, M. V. D., Zaharie, D., Solomons, R. S., ... & Namale, V. S. (2023). Bacterial meningitis in Africa. *Frontiers in neurology*, 14, 822575.
- Bhopal, S. S., Bagaria, J., Olabi, B., & Bhopal, R. (2021). Children and young people remain at low risk of COVID-19 mortality. *The Lancet Child & Adolescent Health*, 5(5), e12-e13.
- Del Bino, L., Østerlid, K. E., Wu, D. Y., Nonne, F., Romano, M. R., Codée, J., & Adamo, R. (2022). Synthetic glycans to improve current glycoconjugate vaccines and fight antimicrobial resistance. *Chemical reviews*, 122(20), 15672-15716.
- Herrera-Restrepo, O., Zhou, Z., Krishnan, A., Conley, W. J., Oladele, E., Multani, J. K., ... & Clements, D. E. (2024). Awareness, attitudes, and practices on meningococcal serogroup B vaccination in the United States among parents of older adolescents and among young adults. *Current Medical Research and Opinion*, 40(1), 125-140.
- Kohil, A., Jemmeh, S., Smatti, M. K., & Yassine, H. M. (2021). Viral meningitis: an overview. *Archives of virology*, 166, 335-345.

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- La Russa, R., Maiese, A., Di Fazio, N., Morano, A., Di Bonaventura, C., De Matteis, A., ... & Fineschi, V. (2020). Post-traumatic meningitis is a diagnostic challenging time: a systematic review focusing on clinical and pathological features. *International journal of molecular sciences*, 21(11), 4148.
- Martinez, L., Cords, O., Horsburgh, C. R., Andrews, J. R., Acuna-Villaorduna, C., Ahuja, S. D., ... & Zhu, L. (2020). The risk of tuberculosis in children after close exposure: a systematic review and individual-participant meta-analysis. *The Lancet*, 395(10228), 973-984.
- Schiess, N., Groce, N. E., & Dua, T. (2021). The impact and burden of neurological sequelae following bacterial meningitis: a narrative review. *Microorganisms*, 9(5), 900.
- Whisnant, J., Martin-Kerry, J., Flett, L., & Knapp, P. (2022). Predictors of meningococcal vaccine uptake in university and college students: a systematic review and meta-analysis. *Journal of American College Health*, 70(6), 1738-1753.

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