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**Sulaiman Umar**  
MNSc, RN, CT, Department of Nursing-Science, College of Health-Sciences, Federal-University Birnin-Kebbi, Kebbi, Nigeria

**Sabiu-Abdulkarim**  
BNSc, RN, PHN, Department-of Nursing-Science, College of Health-Sciences, Federal-University Birnin-Kebbi, Kebbi, Nigeria

**Kyari Kefas Luka**  
BNSc, RN, Department of Medical Surgical-Nursing, Nasarawa-State College of Nursing Sciences, Lafia, Nasarawa, Nigeria

**Abdulkadir Mohammed**  
MNSc, RN, RM, RPHN, Department of Community Health Services, National Primary Health Care Development Agency (NPHCDA) Abuja, Nigeria

**Salihu-Ismail**  
MSc, RN, Department-of-Nursing Services, Federal University of Health Sciences Teaching Hospital Azare, Bauchi, Nigeria

**Ijabula Joseph Ijaida**  
MNSc, RN, RM, RNE, RPHN, Department of Medical Surgical-Nursing, College of-Nursing and Midwifery, Yola, Adamawa, Nigeria

**Kanchan Devi**  
MNSc, RN, RM, Department of Medical Surgical Nursing, SCPM College of Nursing and Paramedical Sciences, Gonda, Uttar Pradesh, India

**Corresponding Author:**  
**Sulaiman Umar**  
MNSc, RN, CT, Department of Nursing-Science, College of Health-Sciences, Federal-University Birnin-Kebbi, Kebbi, Nigeria

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## Comparative study to assess the knowledge of episiotomy among midwifery and nursing students in Lafia North-central Nigeria

**Sulaiman Umar, Sabiu-Abdulkarim, Kyari Kefas Luka, Abdulkadir Mohammed, Salihu-Ismail, Ijabula Joseph Ijaida and Kanchan Devi**

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### Abstract

**Introduction:** Episiotomy is the surgical incision-that cuts the vaginal mucosa superficial perineal muscle-and a few fibers of the levator ani (The muscle of the pelvic floor-and-the-anterior fascicles hold both-sides of the urethra.

**Aim:** The aim of the study was to assess the knowledge of episiotomy among midwifery and nursing students; and to compare their levels of Knowledge. And to find-out-the-statistically significant association-between their levels of knowledge-of and their-selected socio-demographic-variables.

**Materials and Methods:** Descriptive comparative survey design-was used for-the-study. Stratified-sampling-technique was used to select-50 (29 and 21) midwifery and nursing students in Nasarawa-State College of Nursing Sciences-Lafia, North-Central, Nigeria.

**Results:** The results-showed-that, majority of the midwifery and nursing students had average knowledge of episiotomy which accounted for 52.38%, and 48.28% respectively. In comparison of levels of knowledge of episiotomy, midwifery students had higher level of knowledge than nursing students. And there-was statistically significant-association-between midwifery-students' levels of knowledge-of episiotomy-and their-selected socio-demographic variables such as age with-Chi-Square-16.629 and-P-value of-0.011, and previous-knowledge of episiotomy-with Chi-Square-10.039 and P-value-of 0.007.

**Conclusion:** In conclusion, recommendation-was-given to conduct-a-similar study in different setting-using large sample-for generalization of the findings.

**Keywords:** Knowledge, episiotomy, midwifery, nursing, north-central

### Introduction

Episiotomy is the surgical opening-that cuts the vaginal mucosa superficial-perineal muscle-and a small number of fibers of the levatorani (The muscle of the pelvic floor and the-anterior fascicles hold both-sides of the urethra <sup>[1]</sup>. Historically, episiotomy-began be extensively-used after a publication by Delee in 1920, in which he defended not only the routine use of episiotomy, but also the utilization of preventive measures like relief forceps. As Delee was one of the-most prominent figure in the field of obstetricians of his time such practice was broadened during the greater-part of the twentieth-century, until 1983, when-two American Epidemiologist, Stephen Thanked-and David-Bantor, published a-review pointing out-that-there was-no-evidence-the-benefits-or risk-of-episiotomy <sup>[2]</sup>.

However, episiotomy-is-one-of the majority practiced surgical-procedures-in obstetrics help in increasing the vaginal-outlet-width during childbirth as well as to prevent extensive-perineal tear, including-rupture-of the-anal-sphincter-muscles. Whether-episiotomy protect-against or-increases the-risk of obstetric anal-sphincter injuries (OASIS) is of obstetric interest around the globe, as-OASIS is associated-with anal-incontinence, and decrease the quality of anal-sphincter-injury-rates-varies-from 1% to 4% in-the-Nordic-countries <sup>[3]</sup>. The different types of episiotomy incisions-include J-shape, the midline, the modified- median, the mediolateral, lateral, anterior-and radical, the two most-common-techniques are mediolateral and midline <sup>[4]</sup>. Episiotomy rate-reported-for-Thailand-in-2005-was (91%), and-Philippines-was (64%), compared-with-contemporaneous-rate-for-Australia (17%), and the-United-State-(25%), high rate in South-East-Asian countries-persist-despite randomized-controlled-trials-which suggest-that the selective-episiotomy (When-medically-indicated)

rather-than-routine-use of the-procedure [5]. Moreover, episiotomy-is-a-type of birth-injury-that does not decrease the incidence-of severe perineal injuries, and instead-increases the-risk-of-complications-including-perineal injuries, post-partum haemorrhage, pain, puerperal-infection, and-later-dyspareunia [1]. Child birth-has-always-carried-traumatic-stress-to-the-woman's body to-deliver with less perineal trauma-or-injuries, episiotomy-was performed-in 62.5% of all-vaginal-deliveries in the United-States and in nulliparous women, the-episiotomy rate-increase to 80%. Since-that time, the routine utilization of episiotomy-has-been-increasingly-questioned-in-2004 the rate of episiotomy-with-all per vaginal deliveries-were 24.5%. The use of episiotomy-has been said to reduce trauma to the-fetus, decrease the rate of extensive perineal tears and protect the maternal-soft-tissues-yet-disagreement-about-it-actual-effectiveness. Study result revealed that, 112-(87.5%)-responded-to-questionnaire. Low knowledge-level of evidence about overuse, and risk-of-episiotomy-was found among the respondents with a-significant-difference-among midwives, and obstetricians with  $p < 0.05$ . [6]. Therefore, the-investigator felt-that the-needs and desire to carry out a-study-to-assess-the-knowledge-of-episiotomy among-Midwifery and Nursing-Students in-North-Central, Nigeria.

### Aim

The aim-of-the study-was to-assess the-knowledge-of episiotomy-among midwifery-and nursing students; and-to-compare-their levels of-Knowledge. And-to find-out the-statistically significant-association-between their-levels of knowledge-of and their-selected socio-demographic variables.

### Research Hypotheses

**H<sub>1.1</sub>** There was significance knowledge of episiotomy among midwifery and nursing students.

**H<sub>1.2</sub>** There was significance knowledge of episiotomy among midwifery students in comparison to nursing students.

**H<sub>1.3</sub>** There-was statistically-significance-association between-midwifery students' levels of knowledge-of-episiotomy and their selected socio-demographic-variables."

### Materials and Methods

#### Research-Approach

Quantitative-approach was-adopted for the-study.'

#### Research-Design

Descriptive comparative survey design was used for the study.

#### Setting-of the-Study

The research-setting for this-study was Nasarawa-State College of Nursing Lafia, Nasaraw North-Central, Nigeria. It is a Capital-of Nasarawa-State in Nigeria. Nasarawa is a state in the North-Central-region-of-Nigeria; bordered to the-east by the-states of Plateau and-Taraba, to the North by-Kaduna-State. To the south by the-states of Kogi-and-Benue; and to the west-by the Federal-Capital-Territory. The state-was formed from-west-of-Plateau-State in-1996.

The state-has 13 local-government-areas, and its capital is-Lafia.

### Sample Size and Sampling Technique

In order to find the sample size, proportionate sampling technique was used to select 50 respondents (21 Midwifery and 29 Nursing Students).

### Sampling Criteria

**Inclusion Criteria:** Midwifery and Nursing Students that are studying basic midwifery and nursing programme in-Nasarawa-State College of Nursing-Lafia. Those that are-willing to participate and were-available during data-collection were-included in this-study.

**Exclusion-Criteria:** Midwifery and Nursing-Students that-are-not studying basic midwifery and nursing programme in-Nasarawa-State College of Nursing-Lafia. Those that-are-not willing-to-participate in the-study, and those-that were not-available-during data collection were excluded from this study.

**Study-Variables 'Demographic variables** (Age, gender, marital status, religion, School of study, area of residence, and previous knowledge of episiotomy).

**Research variables:** (Knowledge of episiotomy).

### Development-and Description-of Tool

'A self-structured questionnaire was prepared by the investigator to obtain answer from students. The tool used for the research study was-self-structured knowledge questionnaire which was prepare to assess the knowledge of episiotomy among students. The tool was formulated base on the investigators' clinical experience, extensive Library search, consultation of experts, and review of literature. The instrument for data collection was a self-structured closed-ended questionnaire to suit the objectives of the research. The questionnaire consisted of two sections, section A, and B.

**Section-A:** It-consisted of demographic-variables-of-the participants included-seven-items such-as age, gender, marital status, religion, School of study, area-of residence, and previous knowledge of episiotomy.

**Section-B:** It consisted of self-structured-questionnaire on-knowledge of episiotomy. There were-20 questions, each-question had multiple-choice with four-responses (a, b, c, and-d). Each-correct answer-was given a score of one mark, while-wrong-answer and-unanswered score-zero. The maximum-score-was 20. The levels of-knowledge-score were interpreted as good, average, and poor.

**Table 1:** Level of Knowledge Score

Level of knowledge	Score	Percentage
Good	15 – 20	≥75%
Average	10 – 14	≥50<75%
Poor	0 – 9	≤45%

### Ethical-Consideration

The study was conducted after the approval of-Ethical-Committee of-Nasarawa-State Ministry of Health-Lafia,

North-Central, Nigeria; and consent were also obtained from the College Provost, and the study participants. The students were assured for confidentiality of their responses.’’

**Method-of-Data-Collection**

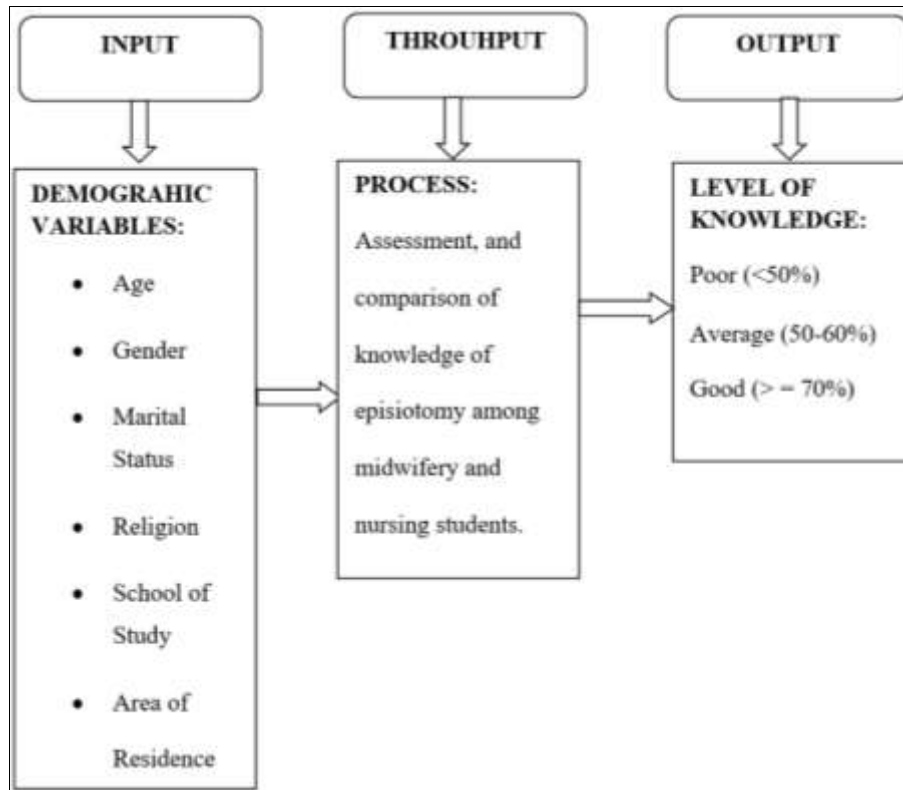
The-data-collected from-the respondents was analyzed-using descriptive-and-inferential statistics with-the-aid of IBM-SPSS version 21.0. Sample criteria were-analyzed by frequency, and percentage distribution tables. Chi-square test was used to find-out the statistically significant-association between their-levels of knowledge-of

episiotomy-and their selected socio-demographic-variables.

**Organization-of the-Study-Findings**

- **Section I:** Respondents socio-demographic variables.
- **Section II:** Respondents levels of knowledge of episiotomy.
- **Section III:** Association-between the-respondents’ knowledge-scores and their-selected socio-demographic-variables.’’

**Results and Discussion**



**Fig 1:** Conceptual Frame-Work-Based on-Ludwig Von

The-conceptual frame-work for the present-study is based on general-system theory-proposed by a biologist Ludwig-Von in-1968. According to him a system is a complex of elements in reaction. He defines the system as a whole by virtue of its-independents-part. The definition implies the whole of the system is distinguishable from its environment and it has-parts, which have their independent function. It also states that-function-of the interdependent part is responsible for the functioning of-whole.

**This Model is Comprised of Three Primary Components**

1. Input
2. Through put
3. Output

**Input:** It-refers to the matter, energy-and-information that

enter to-the system-through its boundary. In the present-study the input refers to the-target population and their socio-demographic-variables such-as-age, gender, marital status, religion, School of study, area-of residence, and previous knowledge of episiotomy.’’

**Through put:** In the present-study the process refers to assessment of the existing knowledge of episiotomy among Midwifery and Nursing Students.

**Output:** In the present study the-output refers to the level of knowledge of-episiotomy among-Midwifery and Nursing Students.

The Biologist Ludwig Von model is best suitable to this study which is undertaken to assess the knowledge of episiotomy among Midwifery and Nursing Students.

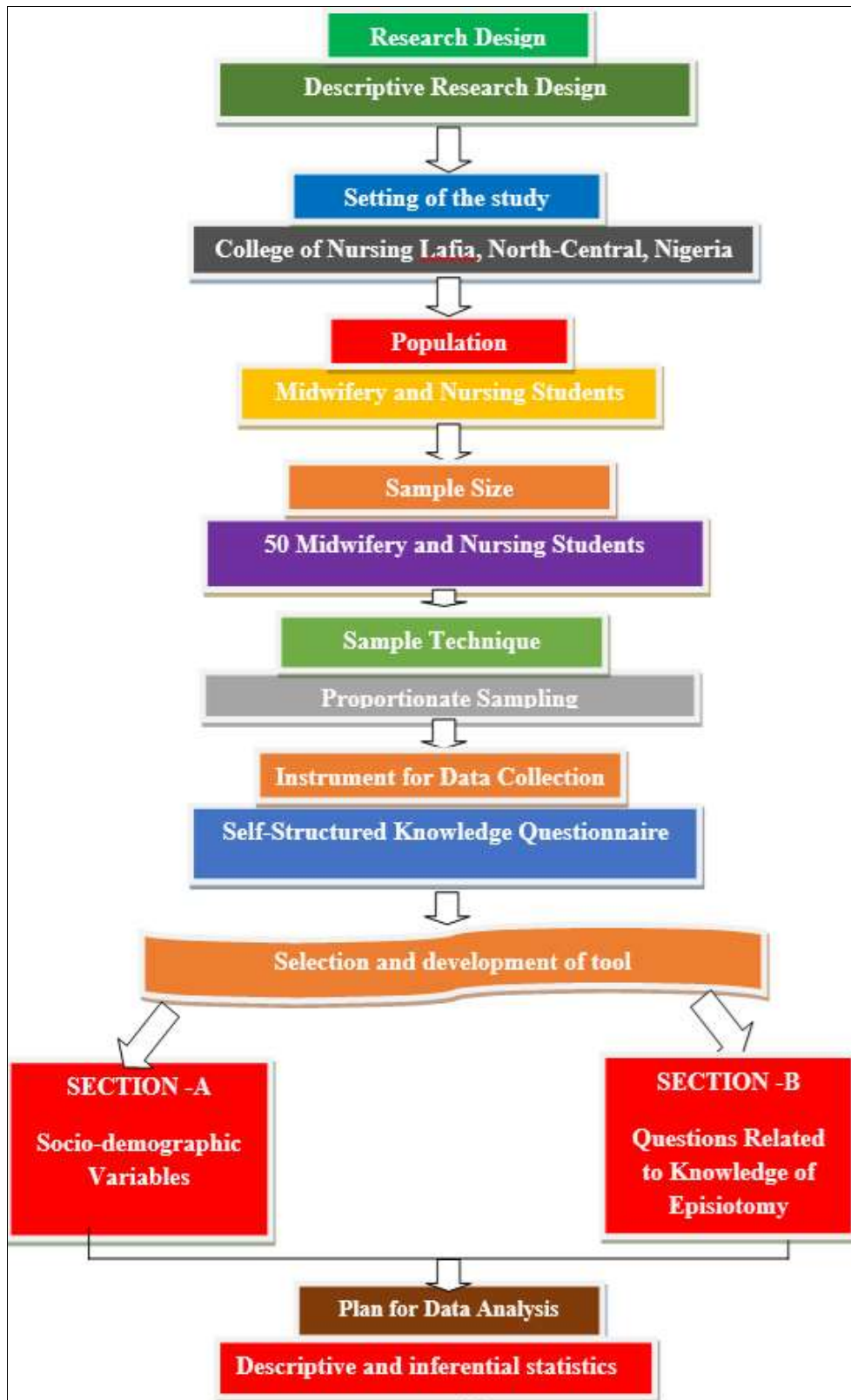


Fig 2: Representation of Research Methodology

**Section I**  
**Percentage-Distribution of Respondents’ Demographic-Variables**

**Table 1:** Frequency-and-Percentage of Midwifery and Nursing Students Based on their Age N=29+21=50

S/ No	Demographic variables	Midwifery students		Nursing students	
		F	%	F	%
1	18 – 20	3	14.3	3	10.3
2	21 – 23	11	52.4	13	44.8
3	>=24	7	33.3	13	44.8

The-above table shoed the frequency and percentage-distribution of-students' age. Midwifery students 14.3% were within-the age-of (18 - 20) years, 52.4% were-between-the age-of-(21 - 23) years and 33.3% were equal to or greater than (24) years. Nursing students 10.3% were within the age of (18 - 20)-years, 44.8% were-between-the age-of-(21 - 23) years and 44.8% were equal to or greater than (24) years.

**Table 2:** Frequency and Percentage of Midwifery and Nursing and Students According their Gender N = 29 + 21 = 50

S/No	Demographic variables	Midwifery students		Nursing students	
		F	%	F	%
1	Male	0	0.0	9	31.0
2	Female	21	42.0	20	69.0

The-table above display the frequency and percentage-distribution of Midwifery-and-Nursing and students based on their gender. Midwifery students 0% were male and 42% were females. Nursing students 31.0% are male and 69.0% were females.

**Table 3:** Frequency and Percentage of Midwifery and Nursing Students Based on their Marital Status N = 29 + 21 = 50

S/ No	Demographic variables	Midwifery students		Nursing Students	
		F	%	F	%
1	Married	9	57.1	9	31.0
2	Unmarried	13	42.9	20	69.0
3	Divorce	0	0.0	0	0.0
4	Widow	0	0.0	0	0.0

The above table showed the frequency-and-percentage distribution of-students' marital status. Midwifery students Nursing students 57.1% were married, 42.9% were unmarried, 0.0% were divorcee, and 0.0% widow. Nursing students 31.0% were married, 69.0% were unmarried, 0.0% were divorcee, and 0.0% widow.

**Table 4:** Frequency and Percentage of Midwifery and Nursing Students Based on their Religion N=29+21=50

S/ No	Demographic variable	Midwifery students		Nursing students	
		F	%	F	%
1	Christianity	8	38.1	17	58.6
2	Islam	13	61.9	12	41.4
3	Others	0	0.0	0	0.0

The above table depicts the frequency and percentage distribution of students' religion. Midwifery students 38.1% were practicing Christianity, 61.9% were practicing Islam, and 0.0% for others. Nursing students 58.6% were practicing Christianity, 41.4% were practicing Islam, and 0.0% for others.

**Table 5:** Frequency and Percentage of Midwifery and Nursing Students Based on their School of Study N=29+21=50

S/ No	Demographic Variable	Midwifery students		Nursing students	
		F	%	F	%
1	Nursing	0	0.0	29	58.0
2	Midwifery	21	42.0	0	0.0

The above table shows the frequency-and-percentage distribution of-students' School of study. 42% are Midwifery students, whereas 58% are nursing students.

**Table 6:** Frequency and Percentage of Midwifery and Nursing Students Based on their Area of Resident N=29+21=50

S/ No	Demographic variable	Midwifery students		Nursing students	
		F	%	F	%
1	Rural	1	4.8	7	24.1
2	Urban	20	95.2	22	75.9

The above table depicts the frequency-and-percentage distribution of students' according to area of residence. Midwifery students 4.8% are residing in-rural-area, while 95.2% in urban area. Nursing students 24.1% are residing in-rural-area, and 75.9% in urban area.

**Table 7:** Frequency and Percentage of Midwifery and Nursing Students Based on their Previous Knowledge of Episiotomy N=29+21=50

S/No	Demographic variable	Midwifery students		Nursing students	
		F	%	F	%
1	Yes	21	100.0	29	100.0
2	No	0	0.0	0	0.0

The above-table shows the frequency-and-percentage distribution of students' previous knowledge of episiotomy. Midwifery students 100.0% had previous knowledge of episiotomy. Nursing students 100.0% had previous knowledge of episiotomy also.

**Section II  
Findings Related to Knowledge of Episiotomy**

**Table 2:** Frequency-and Percentage-Distribution of-Midwifery and-Nursing Students' Levels-of Knowledge of-Episiotomy N=29+21=50

Knowledge level	Range	Midwifery students		Nursing' students	
		F	%	F	%
Good	15 – 20	10	47.62	1	3.44
Average	10-14	11	52.38	14	48.28
Poor	0 – 9	0	0.00	14	48.28

The above table depicts level of knowledge. Midwifery-students 47.62% had-good-knowledge, 52.38%-had-average knowledge, and-0.00% had-poor knowledge of-episiotomy. Nursing students 3.44% had good knowledge, 48.28% had average knowledge, and 48.28% had poor knowledge of episiotomy.

**Section III  
Findings-Related-to Comparison-of Levels of-Knowledge of Episiotomy Between Midwifery and Nursing Students''**

**Table 3:** Comparison of Levels of Knowledge of Episiotomy between Midwifery and Nursing Students N=29+21=50

Knowledge level	Range	Nursing students		Midwifery students	
		F	%	F	%
Good	15 – 20	1	3.44	10	47.62
Average	10-14	14	48.28	11	52.38
Poor	0 – 9	14	48.28	0	0.00

The above table depicts level of knowledge. Midwifery-students 47.62% had-good-knowledge, 52.38% had average knowledge, and 0.00% had poor knowledge of episiotomy. Nursing students 3.44% had good knowledge, 48.28% had average knowledge, and 48.28% had poor knowledge of episiotomy. Therefore, the midwifery students had-higher-level-of knowledge in comparison to nursing students

**Section IV**  
**Findings Related to-Association between the-Levels-of-Knowledge and Selected Socio-Demographic-Variables’’**

**Table 4:** Association between Midwifery Students Levels of Knowledge of Episiotomy and their Selected Socio-Demographic Variables N=29+21=50

S/No	Variables	Chi-Square	P Value
1	Age	16.629	0.011
2	Previous knowledge	10.039	0.007

The table above shows-that there was-statistically-significant association between-their levels of knowledge-score-regarding episiotomy-and-their-selected socio-demographic-variables such-as age with Chi-Square 16.629 and P-value of 0.011, and previous knowledge of episiotomy with Chi-Square 10.039 and P-value of 0.007.

**Table-5:** Association Between-Nursing Students Levels-of Knowledge of-Episiotomy and their Selected-Socio-Demographic-Variables N=29+21=50

S/No	Variables	Chi-Square	P Value
1	Age	5.717	0.221
2	Previous knowledge of episiotomy	6.495	0.390

The table above shows that-there was-no-statistically-significant-association-between their-levels of knowledge-score of episiotomy-with their selected-socio-demographic variables such as-age, and previous knowledge of episiotomy with P-value > 0.05.

**Summary**

The-results revealed that-the age of Midwifery students 14.3% were within-the age-of (18 - 20) years, 52.4% were-between-the age of-(21-23) years and 33.3% were equal to or greater than (24) years. The age of Nursing students 10.3% were within-the age-of-(18-20)-years, 44.8%-were between-the age of-(21-23) years and 44.8% were equal to or greater than (24) years. For gender of Midwifery students 0% were male and 42% were females. For nursing students 31.0% are male and 69.0% were females. Out of 50(100%) of the respondents, the result showed that 52.38% of the midwifery-students-had average knowledge-of episiotomy, and-48.28%-of nursing-students had-average-knowledge. In comparison of levels of knowledge, 47.62% midwifery students had good knowledge, whereas 3.44% of nursing students had good knowledge. And-there was statistically-significant-association-between their levels-of knowledge of

episiotomy-and-their selected-socio-demographic variables-such as-age with-Chi-Square 16.629 and-P-value of 0.011, and previous-knowledge of-episiotomy with-Chi-Square 10.039 and-P-value of-0.007.

**Conclusion**

In-conclusion, the results-revealed that-majority of-the-midwifery and nursing students had average knowledge of episiotomy. In comparison of knowledge, midwifery students had-higher level of knowledge than the nursing students. There-was-statistically-significant-association between-midwifery-students-level knowledge of episiotomy and their selected sociodemographic variables such-as age, and previous knowledge of episiotomy, whereas there was no statistically-significant association between-nursing students level-knowledge-of-episiotomy and-their selected-socio-demographic variables-such as-age, and previous knowledge-of episiotomy.

**Nursing Implication**

The-finding of the-study-has-implication in the field-of nursing-research, nursing-education, nursing-practice, and nursing-administration.’’

**Implication to nursing research:** The study findings will be use by nursing researchers for review of literature.’’

**Implication to nursing education:** The results of this study will be use to nurse educators to identify the-gaps-and-continue strengthen teaching about episiotomy.

**Implication to nursing practice:** The study findings will be useful to nurse practitioners to health educate the expected mothers on episiotomy.

**Implication to nursing administration:** The study results will be useful to nurse managers/administrators to organize-seminar-on episiotomy.

**Recommendations**

Base on the findings-of the-study, the researcher-recommends that-a-similar study to-be conducted-on knowledge-of episiotomy among nursing-students using-different setting-and large sample for generalization-of the-findings.

Quasi-experimental-study can also be-conducted-on-knowledge and-attitude of episiotomy among nursing-students using-different-setting.

**Conflict of Interest**

Not available

**Financial Support**

Not available

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