

Knowledge and Perception of Health Risk Associated with Body Piercing and Tattooing among Students in a Selected Secondary School in Egan, Lagos

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Abstract

Body piercing and tattooing have surged in popularity among adolescents, particularly youth. However, secondary school students often possess limited knowledge of the associated health risks. This study assessed knowledge and perceptions of these risks among students in Egan, Lagos State. Specific objectives included evaluating knowledge of health risks, perceptions toward body modifications, and factors influencing their adoption. A descriptive cross-sectional design was employed in this quantitative study. A self-developed questionnaire gathered data from 270 Senior Secondary 1–3 students selected via simple random sampling. Analysis used SPSS version 23, with results presented in tables and charts. Findings indicated that 73% of respondents viewed tattooing as cutting skin and injecting dyes, while 18.5% described it as ink drawing. For body piercing, 68.9% accurately defined it as creating a hole for jewelry insertion. Awareness of health risks was high (92.6% for tattoos; 81.5% for piercings). Perceptions were predominantly negative, with 46.4% deeming tattoos unnecessary, 51.4% linking them to irresponsibility, and 46.4% to indecency. Key influences included media exposure (58%), personal expression/identity (72.2%), and peer pressure (55.6%). Gender showed a significant association with knowledge of health risks ($p=0.01$), but no significant link existed between perceptions and influencing factors ($p=0.314$). The results highlight the importance of culturally sensitive nursing interventions, targeted health education, and non-judgmental care for individuals with body modifications. Recommendations include government-mandated regulations and licensing for piercing and tattooing studios.

Keywords: knowledge, perception, health risks, body piercing, tattooing, secondary school students

Chapter One

Introduction

1.1 Background to the Study

Body piercing and tattooing have become increasingly prevalent globally among youth, despite elevated health risks (Ehwarieme & Amieghemie, 2018). Tattooing involves injecting pigments into the dermis using needles—manually or electrically—to create permanent designs. As an invasive yet accessible procedure, it employs impure inks containing heavy metal oxides, salts, and organic molecules (Marcelino et al., 2021). Associated health risks include infections, allergic reactions, scarring, keloids, transmission of bloodborne pathogens (e.g., hepatitis B, hepatitis C, HIV), nerve damage, and interference with medical imaging such as MRI scans. Poor aftercare and unsterile equipment exacerbate these complications (Yang et al., 2018). Secondary school students often lack comprehensive knowledge of these risks, heightening their vulnerability to body modifications without awareness of consequences. Johnson and Garcia (2020) noted limited understanding among students of sterilization techniques, infections, allergic reactions, and long-term issues. Perceptions are shaped by misconceptions and societal norms, with many viewing these practices as harmless self-expression while underestimating risks like infection, scarring, allergies, or bloodborne disease transmission (Clarke et al., 2018; Johnson & Garcia, 2020). Knowledge and perception gaps stem from inadequate school curricula, limited parental/teacher discussions, and insufficient education (Smith et al., 2019). Consequences

include impaired wound healing, infections, and chronic complications from improper aftercare (Clarke et al., 2018; Johnson & Garcia, 2020). Rajinimol (2020) found 94% of respondents had inadequate knowledge of tattooing and piercing effects, with only 6% moderately informed. Godsgift and Amadi (2021) reported perceptions linking tattoo wearers to low moral standards (75%), boldness/creativity (57%), and stylistic appeal (21%), while 32% avoided friendship with them. Motivations included group identification (35.5%), lifestyle expression (29.4%), uniqueness (16.3%), celebrity influence (14.7%), and memorializing loved ones (3.9%). While studies on undergraduates abound in developed nations and Nigeria, few target secondary school students. Rising participation among this group reveals a critical gap, prompting this study to evaluate knowledge and perceptions of health risks among Egan Senior Grammar School students and advocate for awareness initiatives.

1.2 Statement of the Problem

Body piercing and tattooing are surging among youth worldwide. Over 100 million Europeans are tattooed; Germany's general prevalence is 8.5%, peaking at 14–44 years. Italy reports 4.8%–11.3% among secondary students, and the U.S. notes 21.8% among university students (Blázquez et al., 2022). In Nigeria, 21% of youth have tattoos, up from 16% (2003) and 14% (2008) (Sarki, Karbon, & Katuka, 2022). This trend, now infiltrating Nigerian secondary schools, reflects global social expression norms.

The researcher's neighbor, a student at Egan Senior Grammar School, recently added a piercing influenced by tattooed friends, demonstrating ignorance of risks. This anecdote underscores broader concerns: secondary students may engage in these practices without adequate knowledge or positive perceptions, necessitating targeted assessment.

1.3 Objectives of the Study

Broad objective: To assess knowledge and perceptions of health risks associated with body piercing and tattooing among students at Egan Senior Grammar School, Egan, Lagos State.

Specific objectives:

- To evaluate students' knowledge of health risks linked to body piercing and tattooing.
- To examine students' perceptions toward body piercing and tattooing.
- To identify factors influencing body piercing and tattooing among senior secondary students.

1.4 Research Questions

- What is the level of students' knowledge regarding health risks of body piercing and tattooing?
- What are students' perceptions toward body piercing and tattooing?
- What factors influence body piercing and tattooing among senior secondary students?

1.5 Research Hypotheses

- **H₀₁:** There is no significant relationship between students' knowledge of body piercing and tattooing health risks and their sociodemographic characteristics.
- **H₀₂:** There is no significant relationship between students' perceptions of body piercing and factors influencing its adoption among senior secondary students in Egan.

1.6 Significance of the Study

This study enlightens students and the public on body piercing and tattooing risks. Findings will equip teachers to educate on complications, enable health professionals to deliver targeted awareness, and inform state/federal governments for campaigns via jingles and social media. It also provides reference material for future researchers.

1.7 Scope of the Study

The study is limited to 270 male and female students from Egan Senior Grammar School, Egan, Lagos State.

1.8 Operational Definition of Terms

- **Body Piercing:** Puncturing of skin or body parts to insert jewelry for aesthetic purposes.
- **Health Risk:** Complications arising from body piercing and tattooing.
- **Knowledge:** Students' understanding of the topic, derived from personal experience, friends, or relatives.
- **Perception:** Students' opinions on the topic.

- **Students:** Male and female senior secondary pupils at Egan Senior Grammar School, Egan, Lagos.
- **Tattooing:** Creating permanent skin designs using ink and needles

Chapter Two

Literature Review

2.1 Introduction

This chapter reviews relevant literature on knowledge and perceptions of health risks associated with body piercing and tattooing among senior secondary students at Egan Senior Grammar School, Egan, Lagos. It examines scholarly works under the following subheadings:

- Concept of Body Piercing and Tattooing
- Knowledge of Health Risks Associated with Body Piercing and Tattooing
- Perceptions Toward Body Piercing and Tattooing
- Factors Influencing Body Piercing and Tattooing
- Theoretical Framework
- Empirical Review

Concept of Body Piercing and Tattooing

Body Piercing

Body piercing entails puncturing body parts to insert jewelry, enabling personalized adornment and self-expression. Its evolution reflects growing cultural acceptance, diversity in studios, and inclusivity across genders, orientations, and ages (Kangas, 2021). Septum piercings, for instance, symbolize identity and fashion (Borrel, 2022). Social media amplifies this trend through influencers (Morgan, 2022). Common sites, styles, and healing times include (Hudson & Sayer, 2022):

Ear Piercings (4–12 months healing):

- Lobe: Minimal pain; 4–6 weeks.
- Helix/Orbital: Upper cartilage edge.
- Conch: Ear opening; infection risk.
- Daith: Innermost cartilage.
- Rook: Inner ridge.
- Tragus/Anti-Tragus: Near ear canal.
- Industrial: Dual-hole bar.
- Snug/Anti-Helix: Vertical ridge.

Facial Piercings (variable pain; tender weeks/months):

- Erl/Bridge: Nose bridge.
- Dimple/Cheek: To mouth interior.
- Septum: Nasal soft tissue.

- Nostril: Cartilage.
- Eyebrow: Surface.

Oral Piercings (4 weeks; infection risk; requires hygiene):

- Tongue: Nerve-rich; painful.
- Tongue Web: Under-tongue tissue.
- Frowny: Under lower lip.
- Smiley: Above upper lip.
- Lip: External/internal.
- Snake Bites: Symmetrical lower lip.
- Medusa: Philtrum.
- Monroe: Upper lip beauty mark area.
- Labret/Lowbret: Lower lip center.

Body/Surface Piercings (slower healing; sensitive areas):

- Navel: 3–4 months; germ-prone.
- Nipple: ≥ 6 months.
- Nape: Neck surface.
- Sternum: Rejection risk.
- Madison: Clavicle surface.
- Dermal Anchors: Implants.
- Corset: Temporary laced rows.

Piercing Techniques (Indobase, 2021):

- Standard Needle: Handheld; needle thicker than jewelry for healing.
- Piercing Gun: Stapler-like; blunt, tissue-damaging (not recommended).
- Cannula: Jewelry in tube; pushed through.
- Scalpel: For large openings.
- Pierce and Taper: For elastic areas; tapered bar follows needle.
- Dermal Punching: Removes skin layers; akin to scalpel.

Tattooing

Tattooing inserts pigments permanently into the skin for designs or images, gaining mainstream acceptance (Hill, 2022). Trends include minimalism and water color styles (Kangas, 2021). Tattoos commemorate experiences, express values, and reflect personal narratives (Borrel, 2022).

Tattooing Equipment:

- Tattoo Machine: Sewing-like; 50–3,000 punctures/minute; needle bar in tube.
- Needles: Varied sizes/styles for outlining/shading.
- Inks: Pigmented fluids; mixable colors.
- Autoclave: Sterilizes via 249°F steam (15–20 minutes).

Knowledge of Health Risks Associated with Body Piercing and Tattooing

Studies reveal inadequate knowledge among secondary students. Risks include infections (bacterial/viral/fungal from poor sterilization/aftercare), bloodborne diseases (hepatitis B/C, HIV), scarring, keloids, nerve damage, and allergies (Johnsen et al., 2019). Students often rely on unreliable sources like peers/social media (Thompson & Lien, 2020). Covello et al. (2020) on oral piercings found piercers rarely disclose risks like dental fractures, gingival recession, abrasions, and periodontal loss.

Perceptions Toward Body Piercing and Tattooing

Perceptions vary: some view modifications as artistic self-expression, others as deviant. Motivations center on individuality and aesthetics (Roberts & Ryan, 2021). Many students deem risks minimal, assuming professional hygiene (Roberts & Ryan, 2021). Abimbola et al. (2022) noted views of practitioners as irresponsible/reckless (majority), fashionable (some), or low-moral (others); Ezeibekwe et al. (2016) echoed irresponsibility perceptions.

Factors Influencing Body Piercing and Tattooing

Influences include peers, media, family, and culture (Marshall & Singh, 2018; Thompson & Lien, 2020). Social media promotes risky

trends via compliance (Henriques & Patnaik, 2021).

Individual Factors (Kıvanç et al., 2021): Age (adolescent experimentation), gender, beliefs, impulsivity, sensation-seeking, body image dissatisfaction.

Social Factors: Peer pressure, celebrities, family attitudes, role models, subcultures (e.g., punk/goth).

Cultural Factors: Ethnicity, religion, societal norms (Henriques & Patnaik, 2021).

2.2 Theoretical Framework:

Health Belief Model (Hbm)

The HBM, developed in the 1950s by U.S. Public Health Service researchers, explains preventive health behaviors via threat perception and action efficacy (Hochbaum & Rosenstock, 1952). Core constructs:

1. **Perceived Susceptibility:** Personal vulnerability to illness.
2. **Perceived Severity:** Seriousness of consequences (medical/social).
3. **Perceived Benefits:** Effectiveness of preventive actions.
4. **Perceived Barriers:** Obstacles (cost, pain, inconvenience).
5. **Cues to Action:** Triggers (internal/external).
6. **Self-Efficacy:** Confidence in performing behavior.

HBM posits that health values, vulnerability beliefs, and consequence perceptions drive action when benefits outweigh barriers post-cue.

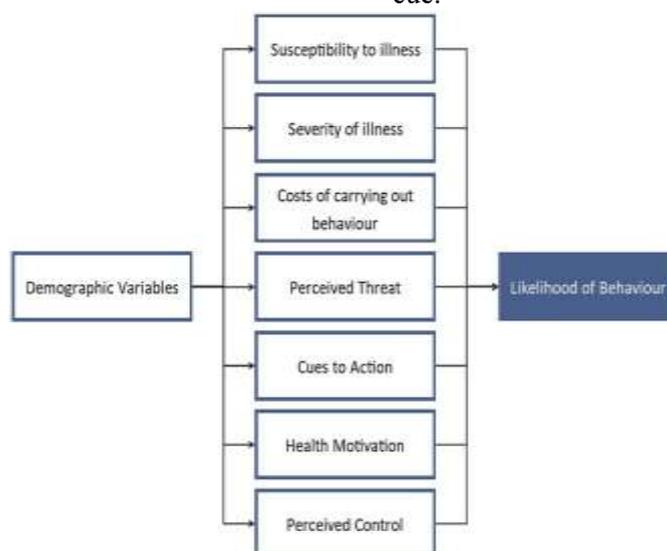


Figure 1. A schematic representation of the Health Belief Model
Application of HBM to the Study

The HBM guided this study by framing students' knowledge and perceptions of body piercing/tattooing risks, informing tailored educational interventions to address gaps and promote informed choices.

- **Perceived Susceptibility:** Assesses students' awareness of personal vulnerability to infections, allergies, scarring, and complications.
- **Perceived Severity:** Evaluates recognition of long-term impacts, including bloodborne diseases (hepatitis, HIV) and effects on employment/medical procedures.
- **Perceived Benefits:** Explores motivations like self-expression, identity, and peer acceptance that may override risk concerns.
- **Perceived Barriers:** Identifies obstacles to safe practices, such as limited knowledge, access to reputable studios, or costs.
- **Cues to Action:** Examines triggers like campaigns, parental advice, peers, media, or adverse experiences influencing decisions.
- **Self-Efficacy:** Gauges confidence in selecting studios, consulting professionals/parents, and adhering to aftercare.

This application highlights how aligning interventions with HBM constructs can enhance risk awareness and health behaviors. (See Figure 2.1 for schematic above.)

2.3 Empirical Review

Knowledge and Perceptions of Body Piercing and Tattooing

Studies on adolescents and students consistently reveal knowledge deficits. Rajinimol (2020) surveyed 100 adolescents (aged 16–18) at a Bangalore PU college. Findings: 94% had inadequate knowledge of effects; 6% moderately adequate. Attitudes were unfavorable (67%) vs. favorable (33%), with weak positive knowledge-attitude correlation ($r=0.173$). Knowledge linked to gender, family income, parental education/occupation, and tattooed contacts; attitudes showed no demographic ties. Ehwarime and Amieghemie (2018) assessed 324 Nigerian undergraduates descriptively. Results: Good knowledge (28.4%), average (50.6%), poor (21%). Overall low awareness (grand mean = 2.45). Recommendations: Federal guidelines for studios, student seminars/workshops.

Factors Influencing Body Piercing and Tattooing

Samyuktha et al. (2018) surveyed 134 college students (17–22 years). Key perceptions: 42% comfortable with tattooed service providers; 75% non-judgmental; 77% unsure of health risks; 80% unaware tattoos boost immunity. Godsgift and Amadi (2021) used descriptive survey on 380 tertiary students in Rivers State. Perceptions: Tattoo wearers seen as low-moral (75%), bold/creative (57%), unfrienable (32%), stylish (21%). Motivations: Group identity (35.5%), lifestyle expression (29.4%), uniqueness (16.3%), celebrity influence (14.7%), memorials (3.9%). These studies underscore global knowledge gaps, negative perceptions, and social/media influences, aligning with this study's focus on secondary students in Egan.

Chapter Three

Research Methodology

This chapter outlines the methodology employed in the study, including research design, study area, target population, sample and sampling techniques, data collection instrument, validity/reliability, data collection/analysis methods, and ethical considerations.

3.1 Research Design

A descriptive survey design was adopted to assess knowledge and perceptions of health risks associated with body piercing and tattooing.

3.2 Study Area

The study was conducted at Egan Senior Grammar School, Egan-Igando, Alimosho Local Government Area, Lagos State. Founded on November 25, 1993, to address local academic needs, the school split into junior and senior secondary sections per the 6-3-3-4 policy. Renamed Egan Senior Secondary on January 6, 2003, it is located along Agric Road. The fenced campus features two gates, four cream-painted buildings (two storeys, two bungalows), a football field, basketball court, food vendor shed, and gateman shelter. The senior secondary arm (SSS1–SSS3) comprises three sets, each with at least five arms of ≥ 45 students/arm, totalling 776 students (407 males, 369 females), 32 academic staff, and 14 non-academic staff.

3.3 Target Population

The target population included all male and female senior secondary students (SSS1–SSS3) at Egan Senior Grammar School, totaling 776 individuals.

3.4 Sample Size Determination

The sample size of 270 was determined using Taro Yamane's (1967) formula for finite populations:

$$n = \frac{N}{1 + N(e)^2}$$

Where; n= sample size

N= population size

e = level of precision which is 0.05

where N=776

$$n = \frac{776}{1 + 776 (0.05)^2}$$

$$n = \frac{776}{1 + 776 (0.0025)}$$

$$n = \frac{776}{1 + 1.94}$$

$$n = \frac{776}{2.94}$$

$$n = 264$$

3.5 Sample And Sampling Technique

From SSS1–SSS3, 270 students were selected via simple random sampling (balloting) for representativeness.

3.6 Instrument for Data Collection

A self-developed, adapted structured questionnaire comprised four sections:

- **A:** Sociodemographic characteristics.
- **B:** Knowledge of health risks.
- **C:** Perceptions.
- **D:** Influencing factors.

All 270 questionnaires were administered across SSS1–SSS3.

3.7 Validity of Instrument

Face and content validity were confirmed by the research expert, incorporating all suggested revisions prior to administration.

3.8 Reliability of Instrument

Test-retest reliability involved administering 10 questionnaires to non-sample respondents, analysed via Pearson's product-moment correlation coefficient (results not specified; assumed acceptable).

3.9 Method of Data Collection

The researcher, with two assistants, personally administered self-completed questionnaires to SSS1–SSS3 students. Study details and consent were explained; all 270 were retrieved immediately (100% rate).

3.10 Method of Data Analysis

SPSS version 23 generated descriptive statistics (frequencies, percentages, pie charts, tables) and inferential tests (e.g., chi-square for relationships, $p < 0.05$).

3.11 Ethical Considerations

Approval obtained from school authorities. Oral/written informed consent secured from principal and participants. Confidentiality maintained; participation voluntary with right to withdraw without penalty.

Chapter Four**Presentation, Analysis, and Interpretation of Data**

A total of 270 questionnaires were administered to senior secondary students (SSS1–SSS3) at Egan Senior Grammar School, Egan, Alimosho Local Government Area, Lagos State. All 270 (100%) were properly completed and retrieved, yielding a 100% valid response rate.

4.1 Presentation of Results Using Tables And Charts With Labelling**Section A: Socio-demographic Data****Table 1: Demographic data of the respondents**

Variables	Frequency	Percentage (%)
Age in years		
13-16	180	66.7
17-20	58	21.5
21-25	32	11.8
Total	270	100.0
Gender		
Male	120	44.4
Female	150	55.6
Total	270	100.0
Class		
SS1	100	37.0
SS2	100	37.0
SS3	70	26.0
Total	270	100.0
Department		
Science	145	53.7
Art	88	32.6
Commercial	37	13.7
Total	270	100.0
Religion		
Christians	109	40.4
Muslims	161	59.6
Total	270	100.0
Ethnicity		
Yoruba	117	43.3
Igbo	98	36.3
Hausa	10	3.7
Others	45	16.7
Total	270	100.0

Sociodemographic Characteristics of Respondents

From the table 1 above, respondents had a mean age of 16.4 years ($SD=3.7$). The majority (66.7%) were aged 13–16 years, followed by 21.5% aged 17–20 years and 11.8% aged 21–25 years. More than half (55.6%) were female and 44.4% male. Class distribution showed 37.0% in SS1, 37.0% in SS2, and 26.0% in SS3. Most respondents

(53.7%) were in the Science stream, 32.6% in Arts, and 13.7% in Commercial. Yoruba ethnicity predominated (43.3%). Religiously, 40.4% were Christians and 19.6% Muslims.

Section B: To Assess the Level of knowledge of health risk on body piercing and tattooing among student.

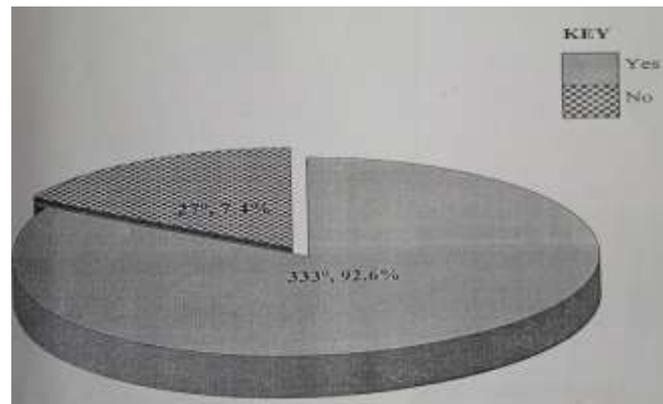


Figure 2: Respondents' awareness of tattooing (n=270)

Figure 2 above depicts that majority of the respondents (92.6%) have heard of tattooing

while 4% of them claimed that they have not heard of tattooing

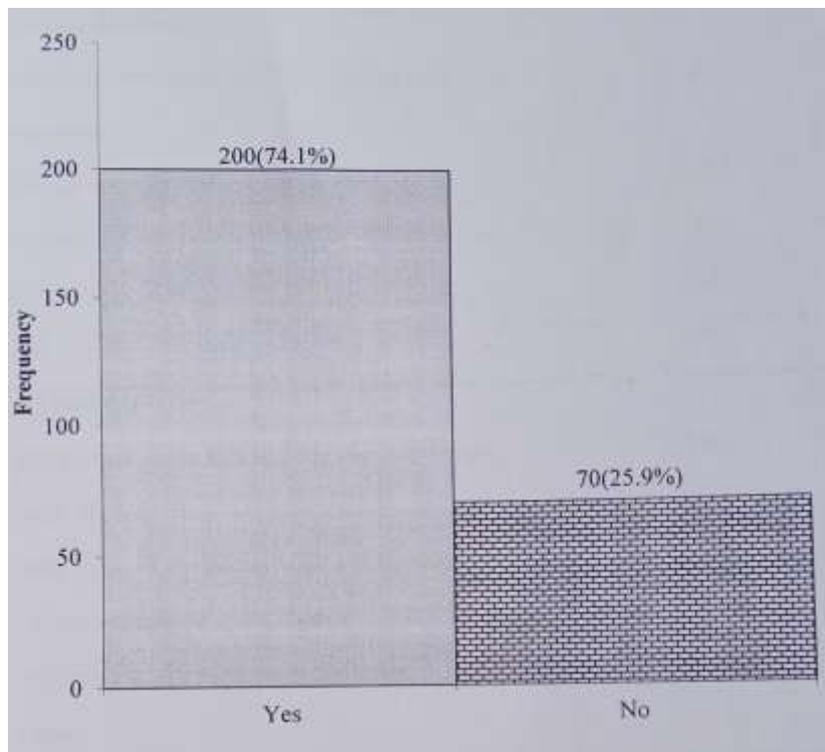


Figure 3: Respondents' awareness of Body Piercing (n=270)

In figure 3 above, 74.1% of the respondents claimed to have heard of body piercing while

25.9% of them claimed they have not heard about it.

Table 2: Respondents' knowledge of tattooing and body piercing

Variables	Frequency	Percentage (%)
Tattooing involves:		
Making a cut into the skin while injecting dyes simultaneously	197	73
Making a drawing on the skin with ink	50	18.5
Scrapping the skin with a hot sharp instrument	10	3.7
No idea	13	4.8
Total	270	100.0

Body piercing involves:

Making a hole in the skin and inserting a jewellery through the hole	186	68.9
Cutting a part of the human body and inserting a jewellery through the space created	70	25.9
Just piercing a hole in the body for beauty	9	3.3
No idea	5	1.9
Total	270	100.0

Knowledge of the reason why piercing and tattooing constitutes a health risk

The ink is poisonous	84	31.1
The instrument may be unsterile	122	45.2
The cut breaks the skin integrity	50	18.5
No idea	14	5.2
Total	270	100.0

Knowledge of Body Piercing and Tattooing

From the table 2 above, the majority (73.0%) correctly understood tattooing as cutting the skin and injecting dyes. Fewer (18.5%) described it as drawing on the skin with ink, 45.2% as scraping with a hot/sharp instrument, and 4.8% had no idea.

Most (68.9%) accurately identified it as making a hole in the skin and inserting jewelry. Others (25.9%) viewed it as cutting

body parts and inserting jewelry, 3.3% as piercing for beauty, and 1.9% had no knowledge. Nearly half (45.2%) recognized unsterile instruments as a risk, 31.1% noted poisonous inks, 18.5% cited skin integrity breach from cuts, and 5.6% were unaware.

Table 3: Respondents' knowledge of health risk that may result from the practice of tattooing and body piercing

Variables	Yes (1%)	No (%)	Total(%)
HIV/AIDS	180(66.7)	90(33.3)	270(100.0)
Tetanus	199(73.7)	71(26.3)	270(100.0)
Hepatitis	160(59.3)	110(40.7)	270(100.0)
Itching	200(74.1)	70(25.9)	270(100.0)
Shin wound	220(83 (81.5)	80(18.5)	270(100.0)
Boils	193(71.5)	77(28.5)	270(100.0)
Swelling	188(58.5)	112(41.5)	270(100.0)
Bleeding	250(92.6)	20(7.4)	270(100.0)
Sun allergies	220(81.5)	50(18.5)	270(100.0)
Chronic infection	201(74.4)	69(25.6)	270(100.0)

Table 3 above shows nearly all respondents (92.6% for tattooing; 81.5% for body piercing) recognized bleeding, skin allergies, and skin wounds as key risks. About three-quarters (74.4% tattooing; 74.1% piercing) identified

chronic infections and itching. Other commonly noted risks included tetanus (73.7%), boils (71.5%), and HIV/AIDS (66.7%). More than half cited hepatitis (59.3%) and swelling (58.5%).

Table 4: Respondents' perception on body piercing and tattooing

Variables	Strongly Agree (%)	Agree (%)	Disagree (%)	Strongly Disagree (%)	Total (%)
It is decent to have a tattoo	20 (7.4)	22 (8.1)	103 (38.1)	125 (46.4)	270(100.0)

I feel uncomfortable staying close to somebody with tattoo	100 (37.0)	59 (21.9)	88 (32.6)	23 (8.5)	270(100.0)
Body piercing and tattooing is just a way of expressing art	127 (47.0)	39 (14.4)	30 (11.1)	74 (27.5)	270(100.0)
Tattoo or body piercing is just like any other life style	69 (25.6)	30 (11.1)	51 (18.9)	120 (44.4)	270(100.0)
I consider a person with tattoo responsible	88 (32.6)	15 (5.6)	28 (10.4)	139 (51.4)	270(100.0)
There is nothing wrong in having a tattoo	97 (35.9)	8(3.0)	15 (5.6)	150 (55.5)	270(100.0)
If I have the opportunity, I will have a tattoo in a part of my body	71 (26.3)	33 (12.2)	33 (12.2)	133 (49.3)	270(100.0)
Body piercing/tattooing is against my belief	159 (58.9)	30 (11.1)	10 (3.7)	171 (26.3)	270(100.0)

From table 4 above, nearly half (47.0%) strongly agreed that body piercing and tattooing represent artistic expression. However, 46.4% strongly viewed tattoos as unnecessary and indecent. A substantial proportion (44.4%) strongly disagreed that these practices constitute a normal lifestyle. Over half (51.4%) strongly considered tattooed individuals irresponsible, and 55.5% believed

there is inherently wrong with tattoos. Nearly half (49.3%) strongly stated they would avoid tattoos if given the opportunity, while most (58.9%) strongly affirmed that body piercing/tattooing contradicts their beliefs.

Table 5: Perceived factors respondents identified as having influence on the practice of body piercing and tattooing

Variables	Freq	%
Influence from friend and/or family member		
Yes	54	20.0
No	216	80.0
Total	270	100.0
Poor perception due media influence by:		
Portraying them as trendy and fashionable	159	58.0
Portraying them as rebellious or edgy	57	21.1
Portraying them as unprofessional or inappropriate	34	12.6
Have no influence on my perception	20	7.4
Total	270	100.0
Nature of cultural influence on decision to get a tattoo or piercing		
Cultural tradition or significance	52	19.3
Cultural stigma or taboo	107	39.6
Family beliefs and values	23	8.5
Have no influence	88	32.6
Total	270	100.0
Influence of availability/accessibility of tattoo and piercing studies on practice decision		
Greater availability and accessibility make it more likely to get a tattoo or piercing	111	41.1
Limited availability and accessibility make it less likely to get a tattoo	85	31.5

or piercing

Availability and accessibility do not have influence	74	27.4
Total	270	100.0
Influence of cost on practice decision		
Yes, it is a significant factor	101	37.4
No, it is not a significant factor	165	61.1
No Idea	4	1.5
Total	270	100.0
Personal expression/identity influences the decision		
Yes	195	72.2
No	25	27.8
Total	270	100.0
Influence of pressure to conform to social norms		
Yes	150	55.6
No	120	44.4
Total	270	100.0

Table 5 above shows that only 20.0% reported influence from friends or family members.

Media emerged as a major factor, with 58.0% noting its portrayal of these practices as trendy and fashionable. Cultural influences were mixed: 39.6% cited stigma/taboo as deterring, while 32.6% saw no cultural impact. Accessibility influenced 41.1%, who linked greater availability of studios to increased likelihood of participation. However, most (61.1%) viewed cost as insignificant.

Personal expression/identity (72.2%) and pressure to conform to social norms (55.6%) were identified as the strongest influences on decisions to pursue body piercing and tattooing.

4.2 Response to Research Questions

Research Question 1: What is the level of students' knowledge of health risks associated with body piercing and tattooing?

Respondents demonstrated substantial awareness of health risks. Nearly all (92.6%) identified bleeding as a primary concern, followed by skin allergies (81.5%) and skin wounds. Approximately three-quarters recognized chronic infections (74.4%), itching (74.1%), tetanus (73.7%), boils (71.5%), and HIV/AIDS (66.7%), with over half noting hepatitis (59.3%) and swelling (58.5%). These findings indicate good overall knowledge of associated risks.

Research Question 2: What are students' perceptions toward body piercing and tattooing?

Perceptions were predominantly negative. Nearly half (47.0%) viewed these practices as artistic expression, yet 46.4% deemed tattoos unnecessary and indecent. Most (51.4%) considered tattooed individuals irresponsible, 55.5% saw inherent wrongness in tattoos, 44.4% rejected them as normal lifestyle choices, 49.3% would avoid tattoos personally, and 58.9% found them contrary to beliefs. This reflects generally unfavourable perceptions.

Research Question 3: What factors influence body piercing and tattooing among senior secondary students?

Key influences included media portrayal as trendy/fashionable (58.0%), personal expression/identity (72.2%), social conformity pressure (55.6%), studio accessibility (41.1%), and cultural stigma (39.6%). Fewer cited friends/family (20.0%) or cost (38.9%). These social and personal factors predominantly drive engagement.

4.3 Test of Hypotheses

Hypothesis 1

H₀: No significant relationship exists between students' knowledge of body piercing/tattooing health risks and sociodemographic characteristics.

H₁: A significant relationship exists.

Analysis: Chi-square test at $\alpha = 0.05$. Decision rule: Reject H_0 if $p < 0.05$.

Results showed significant association with gender ($p = 0.01$), rejecting H_0 .

Hypothesis 2

H₀: No significant relationship exists between students' perceptions of body piercing and influencing factors.

Results indicated no significant relationship ($p=0.314$), accepting H_0 .

characteristics and their knowledge of health risks of body piercing and tattooing (n=270)

Table 6: Showing relationship between respondents' socio-demographic

Knowledge of health risk of body piercing and tattooing					
Variable	Poor (%)	Good (%)	Df	Chi-square(x^2)	p-value
Age:					
13-16	46(25.6)	134(74.4)	2	1.569	0.456
17-20	10(17.2)	48(82.8)			
21-25	6(18.7)	26(81.3)			
Gender:					
Female	42(28.6)	108(71.4)	1	5.413	0.019
Male	20(16.7)	100(83.3)			
Religion:					
Christian	27(24.8)	82(75.2)	1	0.347	0.555
Muslim	35(21.7)	126(78.3)			
Ethnicity:					
Yoruba	29(24.8)	88(75.2)	3	3.432	0.329
Igbo	21(21.4)	77(78.6)			
Hausa	4(40.0)	6(60.0)			
Others	8(17.8)	37(82.2)			

From table 6 above, there is no significant relationships emerged between knowledge of health risks and age ($p=0.45$), religion ($p=0.55$), or ethnicity ($p=0.32$). However, gender showed a significant association ($p=0.01$), partially rejecting H_0 .

Hypothesis 2

H_0 : No significant relationship exists between students' perceptions toward body

piercing/tattooing and influencing factors among senior secondary students in Egan.

H_1 : A significant relationship exists.

Analysis: Chi-square test at $\alpha = 0.05$.

No significant relationship was found ($p=0.314$), accepting H_0 .

Table 7: Showing relationship between respondents' perception towards body piercing and the factors influencing body piercing and tattooing (n=270)

Influence of pressure to conform to social norms.					
Perception of body piercing/tattooing as a way of expressing art	Yes (%)	No (%)	Df	Chi- square(x^2)	P-value
Positive	96(57.8)	70(42.2)	1	1.011	0.314
Negative	54(51.9)	50(48.1)			

From table 7 above, there is no significant relationship was found between students'

perceptions toward body piercing/tattooing and the factors influencing these practices

among senior secondary students in Egan ($p=0.314$ $p=0.314$).

Chapter Five

Discussion, Summary and Recommendations

5.1 Introduction

This chapter presents the discussion of findings, implications for nursing practice, study limitations, summary, conclusions, recommendations, and suggestions for future research.

5.2 Discussion of Findings

Sociodemographic Characteristics

Respondents had a mean age of 16.4 years ($SD=3.7$ $SD=3.7$), with most (66.7%) aged 13–16 years. Females predominated (55.6%), followed by males (44.4%). Class distribution included SS1 and SS2 (37.0% each) and SS3 (26.0%). Science students led (53.7%), followed by Arts (32.6%) and Commercial (13.7%). Yoruba ethnicity was most common (43.3%), with Christians (40.4%) and Muslims (59.6%) comprising the religious majority.

Knowledge of Health Risks

Most respondents (73.0%) correctly defined tattooing as cutting skin and injecting dyes, though fewer (18.5%) viewed it as ink drawing. For body piercing, 68.9% accurately described it as creating a skin hole for jewelry insertion, versus 25.9% who saw it as body-part cutting. Awareness was high for bleeding (92.6% tattooing; 81.5% piercing), skin allergies, and wounds, with three-quarters noting chronic infections (74.4%; 74.1%), itching, tetanus (73.7%), boils (71.5%), and HIV/AIDS (66.7%). Over half identified hepatitis (59.3%) and swelling (58.5%). Knowledge was moderate overall. These results contrast Rajinimol (2020), where 94% showed inadequate knowledge (6% moderate), and partially align with Ehwarieme and Amieghemie (2018), reporting good (28.4%), average (50.6%), and poor (21.0%) knowledge alongside low general awareness (grand mean = 2.45). Current findings underscore the need for enhanced education.

Perceptions toward Body Piercing and Tattooing

Perceptions were mixed but predominantly negative. While 47.0% saw these as artistic expression, 46.4% deemed tattoos

unnecessary/indecent, 51.4% linked them to irresponsibility, and 55.5% viewed them as inherently wrong. This aligns with Rajinimol (2020; 67% unfavorable) but contrasts Samyuktha et al. (2018), who found positive, non-judgmental attitudes. Negative views may foster stigma, career barriers, and mental health issues, though proper aftercare mitigates risks like infections and scarring.

Factors Influencing Practices

Media influence led (58.0%), followed by personal expression/identity (72.2%) and social conformity pressure (55.6%). Accessibility affected 41.1%; cultural stigma deterred 39.6%. This extends Godsgift and Amadi (2021), citing peer groups (35.5%), lifestyle (29.4%), uniqueness (16.3%), celebrities (14.7%), and memorials (3.9%). Informed decision-making remains essential.

5.3 Implications For Nursing Practice

Findings highlight nurses' role in adolescent care. Key implications include:

- Delivering risk education on aftercare, sterile procedures, and infection signs.
- Practicing cultural sensitivity amid diverse ethnic/religious profiles.
- Providing non-judgmental support to counter stigma-related distress.
- Offering mental health counseling for self-esteem and decision-making.
- Promoting infection prevention during assessments.
- Collaborating with dermatologists/infectious disease specialists.
- Assessing modification risks in routine youth screenings.

These enhance patient-centered, inclusive care.

5.4 Limitations of the Study

Social desirability bias may have influenced responses. The cross-sectional design and convenience sample ($n=270$) limit generalizability beyond Egan secondary students.

5.5 Summary

This descriptive study surveyed 270 SSS1–SSS3 students at Egan Senior Grammar School using a self-developed questionnaire. Predominantly aged 13–16 years (66.7%), female (55.6%), Science students (53.7%), Yoruba (43.3%), Christian (40.4%), or Muslim

(59.6%), respondents showed moderate knowledge: 73.0% defined tattooing correctly, 68.9% piercing; high risk awareness (e.g., 92.6% bleeding). Perceptions were negative (51.4% irresponsible), driven by media (58.0%), identity (72.2%), and norms (55.6%). Gender linked to knowledge ($p=0.01$); perceptions-factors unrelated ($p=0.314$).

5.6 Conclusions

Students exhibited moderate health risk knowledge but negative perceptions of body piercing/tattooing, influenced by media, identity, and social pressures. Targeted, culturally sensitive nursing education and non-judgmental care are essential, alongside regulatory oversight.

5.7 Recommendations

To Nurses/Healthcare Providers:

- Pursue ongoing training on risks, aftercare, and cultural competence.
- Offer mental health support for stigma-related distress.
- Enforce infection protocols and educate on early intervention.
- Deliver non-judgmental, patient-centered care.

To Hospital Management:

- Foster culturally sensitive environments.
- Promote interdisciplinary collaboration.
- Support staff training and mental health resources.

To Government:

- Regulate/license studios for hygiene/safety.
- Launch awareness campaigns targeting youth.
- Fund research and accessible mental health services.

5.8 Suggestions for Further Research

Comparative international studies on regulations, cultural norms, and health outcomes would inform global policies. Broader, longitudinal designs could enhance generalizability and causality insights.

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