

**PERCEIVED KNOWLEDGE OF THE HEALTH IMPLICATION OF BUTTOCK  
ENLARGEMENT PROCEDURE AMONG FEMALE UNDERGRADUATE  
STUDENTS IN THE UNIVERSITY OF BENIN**

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**UNIVERSITY OF BENIN  
BENIN CITY**

**NOVEMBER 2025**



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**A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF HEALTH,  
SAFETY AND ENVIRONMENTAL EDUCATION, FACULTY OF EDUCATION,  
UNIVERSITY OF BENIN, BENIN CITY, EDO STATE, IN PARTIAL  
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## CERTIFICATION

We, the undersigned, acknowledge that this research work was carried out by **IMOLEGA Nice** with matriculation number **EDU2203580** in the Department of Health, Safety and Environmental Education, Faculty of Education, University of Benin

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## **DEDICATION**

This research work is dedicated to God almighty who by his infinite love mercy and abundant grace has given me the opportunity, good health, wisdom and strength to undergo my study successfully.

## **ACKNOWLEDGEMENTS**

The researcher wish to express her profound gratitude to her able and hardworking supervisor, Dr. Mrs. ONOBUMEH for her brilliant effort to ensure the success of this work. May God bless you ma.

Her appreciation also goes to my HOD Dr. (Mrs) O. H. Obasuyi Ag. HOD of Health Safety and Environmental Education for giving her the privilege to undergo this study.

Special thanks to her distinguished lecturers, Dr Oronsaye, Dr Don my course adviser and other lecturers of HSE, University of Benin who assisted her in one way or the other. I pray for the Almighty to continually elevate you all.

God's special blessing to her honorable parents Mr. and Mrs. Imolega, Jahswill Imolega, Nathaniel Imolega , Syntheche Imolega, for their encouragement, moral and financial support, advice and spiritual guidance. Without iota of doubts, your effort is highly commendable and appreciated for seeing me through the period of my program.

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## ABSTRACT

*This study examined the perceived knowledge of the health implications associated with buttock enlargement procedures among female undergraduate students of the University of Benin, Edo State. The study was guided by four research questions and supported by an extensive review of relevant literature. A descriptive research design was adopted, targeting a population of 20,697 female students, from which a sample of 294 respondents was selected. Data were collected using a well-structured questionnaire that was validated by experts in Health, Safety and Environmental Education. The reliability of the instrument was confirmed using the Pearson Product Moment Correlation (PPMC). All 294 questionnaires administered were retrieved and analyzed using frequency counts and percentages.*

*The findings revealed that the respondents possessed a high level of perceived knowledge regarding the health implications of buttock enlargement procedures. They demonstrated strong awareness of key medical risks, including the possibility of blood clot formation, which highlights their understanding of potential circulatory complications. The study also showed that the respondents were highly knowledgeable about the risk of viral infections such as HIV/AIDS and Hepatitis B and C especially when such procedures are conducted under unsafe or unregulated conditions. Additionally, the participants recognized nerve damage as a serious health implication that could lead to long-term complications such as chronic pain, numbness, or paralysis.*

*The study concludes that although female undergraduate students of the University of Benin are generally well-informed about the dangers of buttock enlargement procedures, there is still a need for ongoing health education to reinforce safe practices and discourage engagement in unregulated cosmetic enhancements. It recommends increased sensitization programs within the university, incorporation of relevant health topics into departmental curricula, improved regulation of cosmetic surgery centers, strategic use of social media for health awareness, and strengthened counseling services to support students dealing with body image concerns.*

## **CHAPTER ONE**

### **INTRODUCTION**

#### **Background to the Study**

Physical appearance has become a significant factor in determining people's sense of self-worth, social identity, and perceived attractiveness in today's society, particularly for young women. The growing popularity of body enhancement procedures like buttock enlargement is one of the most obvious signs of this trend. Due in large part to the widespread influence of the media, peer pressure, and cultural standards of beauty, this phenomenon has become increasingly popular among female undergraduate students in Nigeria and other countries (Okonkwo & Otu, 2019). Popular culture, influencers and celebrities have praised curvaceous body types, leading to a strong belief that having a larger buttocks, in particular, is a sign of confidence, beauty, and social success (Eze & Chukwu, 2021). The procedures of enlarging the buttocks involves various practices aimed at increasing the size and altering the shape of the buttocks. These enhancement and enlargements, involves procedures that range from non-formal and frequently risky methods like the use of silicone fillers, oral pills, hormone injections, or enhancement creams to medically approved surgical techniques like autologous fat transfer (Brazilian Butt Lift) and gluteal implants (Okafor & Olumide, 2022). Due

to financial limitations and limited access to accredited clinics, young women in Nigeria frequently turn to unlicensed, non-medical enhancement procedures that are pushed by street vendors or social media influencers (Adefolake & Ayomide, 2020).

A variety of non-surgical or informal techniques, such as the use of creams, pills, and injectable substances, as well as surgical procedures like gluteal implants and fat grafting (Brazilian Butt Lift), can be used to enlarge the buttocks. Many young women, particularly students with limited financial resources, turn to unproven and potentially dangerous methods, even though some of these procedures may be carried out in medically regulated settings (Adefolake & Ayomide, 2020). These include illegal injectable substances, underground cosmetic procedures, and the use of over-the-counter products, which are frequently given by untrained individuals (Adefolake & Ayomide, 2020). People who engage in such behaviors run the risk of developing severe health conditions, such as infections, deformities, persistent pain, and in severe situations, death (WHO, 2018).

The perceived knowledge of the health implications of these procedures among female undergraduates remains a critical concern. Perceived knowledge refers to an individual's self-assessed understanding of the health implications

associated with buttock enlargement procedures. People may think they know a lot when in fact they don't have accurate, evidence-based knowledge (Okonkwo & Otu, 2019). Because decisions may be made based on inaccurate or incomplete information, this misalignment can result in risky health behaviors. Rather than formal health education or expert medical advice, female undergraduates' perceived knowledge frequently comes from unofficial sources like social media, peer discussions, and pop culture. The short and long-term health effects of buttock enlargement procedures seem to be poorly understood, despite their increasing popularity. Many young women who undergo body enhancement procedures do so without fully understanding the medical risks involved, according to Okafor and Olumide (2022). Their choices are frequently driven less by a thorough awareness of the possible health consequences and more by aesthetic goals and social acceptance.

Furthermore, the situation is made more difficult by the quick dissemination of false information via social media platforms. It is common for vendors and influencers to advertise buttock enhancement goods and services without mentioning the dangers or providing scientific proof of their effectiveness or safety. As a result, many female undergraduates get a false sense of security about the harmful effects of these procedures, thinking they are quick, safe, and

efficient ways to improve their body image (Umar & Ibrahim, 2021). This lack of appropriate health education and risk awareness emphasizes how crucial it is to assess the perceived level of knowledge of female undergraduates. Because of their developmental stage, exposure to peer pressure, and propensity to try out new beauty trends, female undergraduate students constitute a vulnerable group (Adebayo & Idowu, 2020). Knowing how much these students understand about the negative health effects of buttock enlargement can help tertiary institutions develop policies, communicate risks, and focus health promotion efforts.

The health implications of buttock enlargement practices especially those carried out outside medical supervision are profound. Aside from short-term side effects like pain, swelling, and infections, long-term hazards like tissue necrosis, blood clots, pulmonary embolism, disfigurement, organ failure, and death also occur (World Health Organization, 2018). When used by non-professionals, injectable fillers like industrial-grade silicone have resulted in multiple deaths and long-term health issues worldwide. The risks associated with unregulated enhancement products and underground cosmetic procedures have been brought to light in a number of media reports and medical case studies in Nigeria (Nwachukwu & Eze, 2022). Crucially, students' perceived knowledge of these risks varies, and it is this variation that frequently dictates whether or not they will

continue with such practices. While low or misguided knowledge increases vulnerability to health risks, high perceived knowledge combined with accurate information may act as a protective factor. The physical health implications of these procedures are extensive. Systemic infections such as sepsis, tissue necrosis from incorrect injection techniques, and infections from non-sterile environments are examples of complications (World Health Organization, 2018). Patients may experience fat embolism, pulmonary embolism, or organ failure in more severe cases, especially with procedures involving fat transfer or synthetic fillers. These conditions are frequently fatal if left untreated (Eke, 2020). There have also been reports of disfigurement, nerve damage, chronic pain, and mobility issues, especially after procedures carried out by unlicensed or inexperienced professionals (Nwachukwu & Eze, 2022).

Furthermore, the effects on mental and emotional well-being are just as serious. Depression, body image dissatisfaction, and emotional distress can result from unsuccessful procedures, complications, or unsatisfactory outcomes. Body dysmorphic disorder (BDD) is a mental health disorder that causes some women to obsessively focus on perceived physical flaws, which can lead to repeated or multiple enhancement procedures (Okafor & Olumide, 2022). Further contributing to deteriorating self-esteem and mental health issues are post-surgery regret,

anxiety, and social ridicule, especially when procedures cause noticeable disfigurement. Hormonal and reproductive health are also at risk, in addition to physical and psychological harm. Unapproved hormonal substances, such as corticosteroids or estrogenic compounds, are present in a large number of buttock enlargement creams and pills. Long-term or uncontrolled use of these drugs can cause infertility, irregular menstruation, endocrine disruption, and a higher risk of hormone-related illnesses like ovarian and breast cancer (Adefolake & Ayomide, 2020). Customers are rarely informed of these long-term risks, and the majority are ignorant of the possible repercussions. Even though more people in Nigeria are becoming aware of the health risks associated with cosmetic procedures, much more needs to be done in terms of regulation and intervention. Skin-lightening and body-enhancing products are among the unregistered cosmetics that the National Agency for Food and Drug Administration and Control (NAFDAC) has attempted to limit. Additionally, there have been intermittent crackdowns on unlicensed beauty clinics, especially in major cities like Lagos and Abuja. Even with these initiatives, enforcement is lax and mostly reactive, and a large number of dangerous products are still freely available in marketplaces and on internet platforms (Nwachukwu & Eze, 2022). The World Health Organization (2018) has issued a warning regarding the growing global health burden that unsafe cosmetic

practices pose, especially in low- and middle-income nations with lax or nonexistent regulatory frameworks.

Female undergraduate students are in a critical developmental phase where identity formation, body image, self-esteem, and peer acceptance are particularly influential. Young women frequently start to express their independence and try out different looks in university settings. The pressure to meet popular beauty standards is further increased by romantic relationships, peer pressure, and social media exposure (Adebayo & Idowu, 2020). The glorification of curvaceous body types often showcased on social media platforms like Instagram, TikTok, and YouTube has contributed significantly to the normalization of buttock enlargement practices (Eze & Chukwu, 2021). These trends suggest that many young women associate enhanced buttocks with attractiveness, social acceptance, confidence, and even success. Female undergraduates continue to be particularly vulnerable in Nigeria, where official regulations governing cosmetic enhancement goods and services are still developing. Harmful practices can thrive unchecked due to a combination of lack of knowledge of health risks, cultural emphasis on body image, and insufficient regulatory oversight (Nwachukwu & Eze, 2022). Also, in tertiary institutions, preventive measures like offering focused health talks on body image and cosmetic enhancement or incorporating cosmetic health risks

into orientation programs are still not institutionalized in Nigerian universities and tertiary institutions. Additionally, university health centers hardly ever offer psychological support or counseling to students who are struggling with the emotional fallout from unsuccessful procedures. Cosmetic procedure education is almost nonexistent in campus health programs, in contrast to more well-funded health campaigns like those on HIV/AIDS and reproductive health.

Perceived knowledge, health consequences, buttock enlargement practices, and the sociodemographic traits of female undergraduates interact in a complicated way. A student's decision to have their buttocks enlarged may be influenced by their perception of the risks involved as well as their degree of knowledge. For example, a student may still think that enhancement creams or pills are "natural" and therefore safe even after hearing about a case of a botched surgery. Additionally, socioeconomic status also matters; students from low-income families might favor less expensive and riskier options. Likewise, people who have a negative body image or low self-esteem may be more vulnerable to peer pressure and media pressure, which raises the possibility that they will engage in dangerous cosmetic procedures. These students are more likely to experience negative health outcomes if they overestimate their knowledge or underestimate the risks.

In light of these facts, it is crucial to investigate how well-informed female undergraduate students are about the health implications associated with buttock enlargement. This will assist in both identifying knowledge gaps and comprehending how the adoption of unsafe practices is influenced by misinformation or a lack of awareness. In conclusion, the surge in buttock enlargement among female undergraduates raises serious public health concerns, particularly when these practices are informed by poor or misguided knowledge.

### **Statement of the Problem**

Buttock enlargement has become one of the most popular body enhancement demands due to the growing emphasis on curvy body types and societal standards of beauty. Peer pressure, media impact, and shifting societal standards of beauty are all contributing factors to this trend, which is becoming more and more apparent among female undergraduates. But behind the attraction comes a growing public health concern which is the general lack of knowledge regarding the possible health dangers associated with buttock enlargement procedures.

Viral infections, blood clots, nerve damage, tissue necrosis, disfigurement, and even death are among the serious medical hazards associated with buttock enlargement, regardless of whether it is achieved through fat transfer, implants, or

injectable fillers, according to existing research (Mofid et al., 2017). Due to its high death rate, the Brazilian Butt Lift in particular has been named one of the most risky cosmetic procedures performed globally (American Society of Plastics Surgeons, 2021). In addition to the physical concerns, psychological problems include anxiety, depression, regret after surgery, and body image issues (Napoleon & Lee, 2020). Young women in Nigeria, where hazardous and uncontrolled buttocks enlargement operations are widespread, are much more vulnerable to potentially fatal consequences from poorly performed procedures (Onah, Asuquo, & Ekanem, 2020).

Despite these concerning facts, my own observations at the University of Benin indicate that a huge number of female undergraduate students are heavily impacted by peer narratives and social media representations, but they do not fully comprehend the health risks associated with buttock enlargement. Students are typically aware of the surgery, according to conversations and informal talks, but their understanding of its potential health effects is frequently limited, distorted by false information. Female undergraduate students could undervalue risks and make potentially dangerous actions as a result of this knowledge gap. The problem, therefore, lies not only in the growing popularity of buttock enlargement among female undergraduates but also in their perceived knowledge of its health

implications, which appears to be limited, distorted, or misinformed. Without adequate knowledge, these students remain vulnerable to unsafe practices, avoidable medical complications, and long-term psychological distress. In the light of this, this study therefore seeks to examine the perceived knowledge of the health implication of buttock enlargement procedure among female undergraduate students in the University of Benin.

### **Research Questions**

The following research questions were raised to guide the study;

1. What is the level of perceived knowledge of the health implications of buttock enlargement procedure among female undergraduate students in the University of Benin?
2. Will blood clot be a health implication for buttock enlargement procedure among female undergraduate students in the University of Benin?
3. Will viral infections be a health implication for buttock enlargement procedure among female undergraduate students in the University of Benin?
4. Will nerve damage be a health implication for buttock enlargement procedure among female undergraduate students in the University of Benin?

## **Purpose of the Study**

This study was aimed to examine the perceived knowledge regarding the health implications of buttock enlargement among female undergraduates in the University of Benin. In particular, this research seeks to:

1. examine the level of perceived knowledge of the health implications of buttock enlargement among female undergraduate students in the University of Benin.
2. explore if blood clot will be a health implication for buttock enlargement procedure among female undergraduate students in the University of Benin.
3. ascertain if infections will be a health implication for buttock enlargement procedure among female undergraduate students in the University of Benin.
4. identify if nerve damage will be a health implication for buttock enlargement procedure among female undergraduate students in the University of Benin.

## **Significance of the Study**

The findings of this study will be beneficial to female students, health educators, school management, policy makers and future researchers. For female students, the study will provide appropriate knowledge of the possible dangers associated with buttock enlargement procedures. The study will enable students to make knowledgeable judgments about their bodies by illuminating health dangers such as infections, embolism, organ damage, deformities, and psychological issues.

Additionally, it will lessen the impact of false information and peer pressure, which frequently lead students to engage in risky cosmetic procedures.

For health educators, this study will be used as a reference to find misconceptions and knowledge gaps among students about cosmetic improvement. With this knowledge, they will be more prepared to create and carry out focused health education initiatives, seminars, and campaigns that speak to the unique problems that young women have with regard to their body image and buttock enlargement.

The study will also help the University of Benin's student's management by bringing attention to a new problem that has an immediate impact on the welfare of its students. Through the development of supportive interventions, such as counseling services, body image education, and awareness initiatives, the institution will help students make healthier lifestyle choices.

For policymakers, especially those in the fields of youth development and health, this study will offer factual data that can direct the development of laws and rules intended to deter risky cosmetic procedures, encourage body positivity and guarantee the application of health standards in cosmetic operations. Young women can be greatly shielded from preventable health hazards by such policies. Lastly, for researchers, the study will add to the body of knowledge and will be a

basis for further research.

### **Scope and Delimitation of the Study**

The scope of the study is focused on the perceived knowledge of the health implications buttock enlargement. This study will be carried out using the female undergraduates in the university of Benin. The study is delimited to female undergraduates in the University of Benin.

### **Operational Definition of Terms**

**Perceived Knowledge:** This refers to the level of awareness and understanding that female undergraduate students believe they have regarding the health consequences of buttock enlargement. It includes their self-reported knowledge on the procedures, risks, and outcomes involved in such enhancements.

**Health Implications:** These are the possible medical, psychological, or physical effects both short and long-term that may result from buttock enlargement procedures. These include infections, nerve damage, scarring, deformities, blood clots, and even death due to unsafe practices.

### **Buttock Enlargement:**

This refers to any process or procedure intended to increase the size, shape, or appearance of the buttocks. It includes surgical procedures (e.g., butt implants, fat

transfer), non-surgical methods (e.g., injections, creams, pills), and homemade or uncertified practices.

**Unsafe Practices:** This term is used to describe unregulated or medically unauthorized procedures or products used for buttock enlargement, such as silicone injections from non-certified personnel, harmful chemicals, or counterfeit products.

**Body Enhancement:** Refers to all aesthetic procedures or products used to alter or improve one's appearance. In this study, the focus is specifically on enhancements aimed at enlarging the buttocks.

**Body Image:** This refers to an individual's perception and attitude towards their physical appearance. In the context of this study, it relates to how female students view their buttocks and whether dissatisfaction influences their desire for enlargement.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

This chapter will be discussed under the following subheadings:

- Overview of Buttock Enlargement
- Types of Buttock Enlargement Procedures
- Health Implications of Buttock Enlargement
- Perceived Knowledge of the Health Implications of Buttock Enlargement
- Informational Resources about Buttock Enlargement
- Short and long-term health complications associated with various buttock enlargement procedures (e.g., injections, implants, creams).
- Regulatory and Institutional Responses to Buttock Enlargement in Nigeria
- Summary of Literature Reviewed

#### **Overview of Buttocks Enlargement**

Buttock enlargement, also referred to as gluteal augmentation, encompasses surgical and non-surgical procedures designed to improve the size, contour, or projection of the buttocks. It has emerged as one of the fastest-growing areas of cosmetic surgery in the last decade, driven largely by cultural ideals of femininity and the increasing influence of social media (Hernandez et al., 2020). Modern buttock enlargement is based on globalized standards of beauty that idealize a

hourglass figure with small waists and prominent hips, in contrast to traditional forms of body modification that were practiced in various African and Latin American societies for symbolic or cultural reasons (Sykes et al., 2020). Buttock enlargement treatments grew by about 37% worldwide between 2016 and 2020, according to reports from the International Society of Aesthetic Plastic Surgery (ISAPS, 2021), making it one of the cosmetic procedures with the quickest rate of growth.

Both surgical and non-surgical techniques can be used to expand the buttocks. Gluteal implants and autologous fat grafting, commonly referred to as the Brazilian Butt Lift (BBL), are surgical treatments. With implants, solid silicone prosthesis are inserted intramuscularly or subfascially to provide a more lasting improvement (Senderoff, 2018). After liposuction from parts like the belly, thighs, or flanks, autologous fat grafting, or BBL, involves purification and injection into the gluteal area. Because it simultaneously reshapes donor areas and augments the buttocks, creating a natural appearance, the BBL is highly preferred (Cárdenas-Camarena et al., 2018). But despite its widespread use, the procedure's high fatality rate from fat embolism has made it one of the riskiest cosmetic operations (Mofid et al., 2019). Dermal fillers, silicone or hydrogel injections, and vacuum therapy are non-surgical options. Although injectable fillers and

minimally invasive procedures are frequently promoted as safer and less expensive options, unlicensed silicone or hydrogel injections are especially risky due to their link to systemic complications, chronic inflammation, and disfigurement (Restrepo et al., 2019). Underground practitioners provide illegal injections, putting women at risk for fatalities in many underdeveloped nations where surgical procedures are costly (Okeke, 2021).

Buttock enlargement has a variety of causes, including social, cultural, psychological, and financial ones. One significant factor is the impact of social media sites like Instagram and TikTok, which commonly promote exaggerated body types as the ideal of beauty, and celebrity culture (Swami, 2021). According to research, young women especially undergraduates are particularly vulnerable to peer pressure and media impact, which can cause them to view buttock enlargement as a means of achieving more popularity, attractiveness, and even financial gain (Crandall & Sarwer, 2018). Motivations are also shaped by cultural ideals. Curvaceous body forms have long been associated with fertility, health, and desirability in Latin American and African contexts (Adegoke, 2020). Modern cosmetic procedures are still influenced by this cultural preference for larger hips and buttocks. In psychology, people frequently seek buttock augmentation to boost their self-esteem, deal with body dissatisfaction, or feel more empowered

(Alvarez-Galvez et al., 2021). But studies also show that these incentives are frequently rooted in distorted body image and insecurities, which can continue even after surgery (Figueroa et al., 2019).

Over the past ten years, the demand for buttock augmentation has grown dramatically on a global scale. Over 400,000 buttock procedures were carried out globally in 2020, according to ISAPS (2021), even though elective surgeries decreased during the COVID-19 epidemic. In terms of the quantity of gluteal augmentations carried out each year, the United States, Brazil, and Mexico are in the front (ISAPS, 2021). Alarming, even with increasing awareness of the risks, the demand continues to rise, with BBL procedures seeing the sharpest increase. The commodity of beauty and the normalization of cosmetic improvements in the media are the key causes of this rise (Alvarez-Galvez et al., 2021). In Nigeria, Buttock enlargement is becoming more and more common, especially among young women in urban areas like Benin City, Lagos and Abuja. The celebration of curvier body types by local celebrities and influencers, as well as the growing power of social media, are closely associated with the phenomena (Adegoke, 2020). Many Nigerian women choose to unlicensed practitioners who use hydrogel implants or industrial-grade silicone injections since surgical treatments in authorized centers or overseas are expensive. There is an increase in serious

complications and fatalities as a result of this practice's lack of regulation and inadequate oversight by health authorities (Okeke, 2021). Due to the paucity of public health discussions around cosmetic surgery in Nigeria, many undergraduate students are still ignorant of the risks, leaving them open to risky behaviors.

### **Types of Buttock Enlargement Procedures**

Buttock enlargement, also known as gluteal augmentation, is the term for a number of techniques used to increase the buttocks' size, shape, or projection. Globally, this cosmetic procedure is becoming more and more popular, especially among women who want to fit in with the modern ideals of beauty that place an emphasis on having a fuller, curvaceous figure. The invasiveness, cost, permanence, and potential health risks of the various buttock enlargement techniques and types vary. They fall into three general categories: non-surgical, informal, or unsafe, and surgical. Each has its own risks and procedures.

**1. Surgical Methods of Buttock Enlargement;** Surgical techniques are thought to be the most efficient and durable ways to improve the buttocks. Certified plastic surgeons perform these procedures, which usually happen in a hospital or clinical setting.

a. **Buttock Implants (Gluteal Implants);** Using this technique, silicone implants are placed into the buttock region, typically inside or beneath the gluteal muscles.

For those with low body fat who might not be good candidates for fat grafting, the procedure is perfect. It is well known that buttock implants offer a more consistent volume and form according to The American Society of Plastic Surgeons (2022).

b. **Brazilian Butt Lift (BBL);** One of the most widely used surgical techniques for buttock augmentation is the Brazilian Butt Lift (BBL). Using liposuction, fat is extracted from the back, thighs, or abdomen, purified, and then injected into the buttocks. Because the BBL uses the patient's own fat, it is praised for giving the appearance and feel of a more natural procedure. It is not risk-free, though. When done incorrectly, the BBL can result in fat embolism, infection, and uneven results, making it one of the most dangerous cosmetic procedures, according to a study by Mofid et al. (2017).

**2. Non-Surgical Methods of Buttock Enlargement;** For those who want to avoid the expenses, discomfort, and recovery time related to surgery, non-surgical techniques provide an alternative. Although these techniques are typically less invasive, the results are typically less noticeable and have a shorter lifespan.

a. **Injectable Fillers;** Hyaluronic acid and other dermal fillers can be injected into the buttocks to add volume and shape. While this method is less invasive than surgery, it is temporary and requires repeated sessions to maintain results. A study by de Bouille et al. (2015) supports the use of fillers for body contouring, though it

warns that the results are not as durable as surgical options and that overuse may cause complications such as lumps or infections.

b. Vacuum Therapy; Vacuum therapy, also known as vacuum suction or cupping therapy, is a non-invasive treatment that uses suction cups to stimulate the muscles and increase blood flow in the buttock area. It is often advertised in beauty salons and spas and is believed to temporarily lift and firm the buttocks. Although some studies suggest improved skin elasticity and muscle stimulation, the long-term effectiveness of vacuum therapy for permanent buttock enlargement remains unproven (Martínez-González et al., 2020).

c. Topical Creams and Pills; There are numerous over-the-counter creams and oral supplements marketed for buttock enhancement. These often contain phytoestrogens, collagen, or herbal ingredients purported to stimulate fat accumulation in targeted areas. However, scientific evidence supporting their effectiveness is largely anecdotal. According to Ugwuegbu & Eze (2021), many of these products are unregulated and pose potential health risks due to unknown or harmful ingredients.

**3. Informal and Unsafe Methods of Buttock Enlargement;** In developing countries and among low-income populations, many women resort to informal or

unsafe methods due to lack of access to qualified medical professionals or financial constraints.

a. **Black Market Injections;** These involve the illegal injection of substances such as industrial-grade silicone, petroleum jelly, or mineral oil into the buttocks. These procedures are often performed by unlicensed individuals in non-sterile environments. According to the World Health Organization (WHO, 2021), such procedures can result in severe complications, including chronic pain, infection, tissue necrosis, and even death. Numerous cases have been documented in Nigeria, the United States, and Brazil where women have suffered irreversible damage due to these illegal interventions (Okonkwo, 2022).

b. **Homemade Remedies and Concoctions;** Some women use homemade mixtures involving creams, oils, or even injected solutions made from unknown ingredients, based on local myths or peer recommendations. These are often promoted on social media platforms or by informal vendors. While these methods may appear cost-effective, they are not backed by scientific evidence and often lead to skin damage, infections, and other health hazards (Adeleye et al., 2020).

### **Health Implications of Buttock Enlargement**

Buttock enlargement procedures have a number of negative health effects, despite being more and more common among women who want to attain idealized

body aesthetics. Depending on whether a surgical, non-surgical, or informal approach is taken, these consequences can range from minor issues to potentially fatal conditions. While some procedures are carried out in clinical settings by trained professionals, many cases particularly in developing nations involve risky practices that seriously jeopardize the physical and mental well-being of patients. Informed decision-making and safer health seeking behaviors among women depend on an understanding of these health implications.

- Pulmonary Fat Embolism and Mortality Risks (Blood Clot)

The BBL has the highest risk of pulmonary fat embolism (PFE)-related mortality consequences of any operation. This happens when fat gets inadvertently into the venous system and blocks the flow of blood to the lungs. Sudden respiratory distress or cardiac arrest are common symptoms of fatalities. Because BBL has a higher death rate than most elective cosmetic procedures, according to several research, professional bodies have issued stringent safety guidelines for injection techniques (Rios & Gupta, 2020). Deaths are still being recorded in spite of these efforts, highlighting how dangerous this condition is.

- Implant-Related Complications

Despite being thought of as a safer option, buttock implants present particular surgical hazards. Complications include hematoma, capsular contracture, implant

displacement, seroma, and wound infection (Oregi et al., 2023). Implants may move, break, or extrude over time, resulting in abnormalities and necessitating several revision procedures. These issues put more strain on the healthcare system and lead to patient discontent (Elsaftawy et al., 2023).

- Illicit and Unregulated Injections

Using industrial silicone or other unauthorized fillers is one of the riskiest illegal treatments. Tissue necrosis, painful nodules, persistent granulomas, and the migration of injected materials to other organs are among the complications (Shen et al., 2021). Complications from illegal injections are very hard to treat and frequently irreversible, in contrast to those from medically performed operations. Patients in low and middle-income nations frequently arrive late with severe issues that necessitate ongoing care because of affordability, which fuels demand for such illicit procedures (Restrepo et al., 2019).

- Viral Infections

Viral infection is another known concern associated with buttock augmentation surgeries, particularly those carried out in non-sterile settings. HIV and hepatitis B and C are among the bloodborne infections that patients are exposed to when they utilize infected surgical tools, sharing needles, or non-medical injectables. These infections may remain undiscovered until major health implications occur. Due to

inadequate sterilizing procedures and hazardous material handling, illegal cosmetic injections present a disproportionately high risk of spreading viral infections (Rodriguez et al., 2020). The risks connected to unlicensed cosmetic treatments are further compounded by the ongoing burden of treating persistent viral infections.

- Nerve Damage and Neurological Complications

Nerve damage is another concern associated with buttock enlargement treatments, particularly implants and deep fat injections. During surgery, the sciatic nerve, which passes through the gluteal area, is susceptible to damage. Chronic neuropathic pain, weakness, numbness, or even functional incapacity in the lower limbs can be caused by nerve injury. Poor surgical technique or high injection volumes have been connected to persistent pain syndromes, nerve compression, and paresthesia, according to studies on post-operative complications (Lee et al., 2019). These neurological issues can significantly lower quality of life and are frequently irreversible.

- Psychological and Emotional Consequences

Procedures for buttock augmentation have varying psychological effects. Others experience worry, depression, and regret, especially when issues arise or when outcomes fall short of expectations, while some women report feeling more

confident and self-assured in social situations (Jones et al., 2022). Individuals who already struggle with body image are more likely to have poor psychological adjustment. The stress of undergoing frequent corrective surgery might cause long-term body image dissatisfaction and worsen emotional suffering.

- **Long-Term Sequelae and Burden on Health Systems**

There are many different and frequently incapacitating long-term consequences. These consist of abnormalities, scarring, asymmetry, fat necrosis, and chronic pain. Patients who receive illegal injections may develop persistent inflammation, recurring infections, or systemic sickness. Health systems are under a lot of strain from these chronic illnesses, especially in areas with low resources and a lack of reconstructive specialists. Buttock enlargement issues are not only a personal but also a public health concern because patients frequently experience numerous hospital stays, drawn-out treatment regimens, and intricate procedures (Leyva et al., 2018).

More than 3,500 patients who had Brazilian Butt Lift procedures participated in a multicenter retrospective study carried out in Mexico by Cárdenas-Camarena et al. (2018). Despite the high level of patient satisfaction, the study found that the surgery was risky, with mortality rates greater than those of other cosmetic surgeries and recorded incidences of fat embolism. The risks of

intramuscular fat injections were highlighted by this empirical data, as fat can inadvertently enter the bloodstream and result in life-threatening consequences. Similar findings were made by Mofid et al. (2019), who examined data from the Aesthetic Surgery Education and Research Foundation (ASERF) task force and found that, of elective cosmetic surgeries, BBL treatments had the greatest fatality risk, with an estimated 1 in 3,000 patients dying from fat embolism. To lower these dangers, the study recommended immediate changes to surgical methods and more stringent laws.

In another study, Salgado et al. (2020) looked at the results of silicone gluteal implants and discovered that chronic discomfort, capsular contracture, and implant displacement were common side effects. Although implants provided a long-term treatment for enlargement, they had a high rate of revisions and frequently caused recurring health problems that impacted long-term patient satisfaction. In addition to surgical procedures, non-surgical techniques like hydrogel or silicone injections have also been shown to have serious negative health effects. An observational study was conducted by Restrepo et al. (2019) on patients receiving treatment for illegal cosmetic injectable problems. The results showed long-term tissue necrosis, systemic migration of injected chemicals,

granuloma formation, and serious infections. Sadly, the majority of these individuals had undergone risky treatments performed by unlicensed professionals. In a study conducted in Nigeria, Okeke (2021) found that the use of unsterilized equipment in unofficial cosmetic procedures greatly raised the risk of bloodborne illnesses such as hepatitis B and HIV. Shah et al. (2020) supported this by emphasizing that patients may be exposed to chronic viral infections as a result of inadequate infection control procedures during cosmetic injections. Senderoff (2018) noted cases where patients undergoing buttock implants or fat transfer experienced sciatic nerve compression, leading to chronic pain, numbness, and mobility issues. Such neurological complications were shown to negatively impact patients' quality of life post-surgery.

### **Perceived Knowledge of the Health Implications of Buttock Enlargement**

Perceived knowledge describes a person's subjective knowledge or understanding of a particular topic, regardless of how accurate or supported by evidence that understanding is. Perceived knowledge of the health risks associated with cosmetic procedures like buttock enlargement is crucial in influencing choices, attitudes, and actions. Through social media, peer pressure, and commercial advertising, many women especially young adults and university students are being exposed to more and more information about body

enhancement procedures. The breadth and precision of their understanding of the associated health risks, however, are frequently in doubt. Perceived and actual knowledge gaps can have a big impact on how people seek health care and how likely they are to engage in risky behaviors.

Informal, non-medical sources frequently provide the information that influences people's perceptions of their knowledge of buttock enlargement procedures. Before and after photos of cosmetic procedures are commonly displayed on social media sites like YouTube, Instagram, and TikTok without providing sufficient information about the risks involved (Ogunyemi, 2022). Celebrities and influencers frequently propagate a particular ideal of body image by presenting cosmetic enhancements as normal, safe, and appealing. As a result, a lot of young women start to think that procedures like filler injections and Brazilian Butt Lifts (BBLs) are simple and low-risk.

Another significant source of perceived knowledge is peer networks. For example, university students frequently exchange thoughts, endorsements, and product suggestions with one another, particularly in settings where body image is a social currency. Peer discussions are a major source of body enhancement knowledge for Nigerian female undergraduates, but they are rarely based on clinical facts, claim Onwuka and Okafor (2020). Additionally, the idea that

buttock enlargement is safe and available is influenced by advertisements for non-invasive therapies, pills, and enhancement creams, which are frequently broadcast without regulatory oversight. Such advertisements frequently minimize or completely ignore possible health risks, which serves to further spread false information (Ugwuegbu & Eze, 2021). Significant misunderstandings regarding the procedures, their consequences, and the risks involved are frequently present in perceived knowledge. For instance, a lot of people think that herbal supplements and topical creams can increase buttock size without causing negative side effects. But often, these products include unlisted or unregulated ingredients that can damage skin and interfere with hormones (Adeleye et al., 2020).

In a similar vein, the dangers of common procedures such as the BBL are frequently overlooked. According to a study by Mofid et al. (2017), the risk of fat embolism associated with the BBL makes it one of the cosmetic procedures with the highest mortality rates. Due in large part to its glorification in the media and the dearth of easily accessible, evidence-based health education, many women nevertheless view it as a routine and reasonably safe enhancement. In addition, many people consider unofficial or illegal injection practices which are prevalent in low-resource environments to be less expensive options, with little awareness of the potentially fatal consequences, which include infections, tissue necrosis, and

organ failure (Okonkwo, 2022). This suggests a significant discrepancy between people's perceptions of the risks and what is known by medical professionals. Formal education and exposure to health promotion campaigns have been shown to have a positive impact on accurate knowledge and decision-making regarding cosmetic procedures. For example, compared to their peers in non-health fields, students in health-related disciplines frequently exhibit a greater awareness of the risks associated with body modifications (Sarwer et al., 2005). This implies that focused health education can aid in closing the knowledge gap between perception and reality, particularly in academic settings. Correcting misconceptions and cognitive biases must be the goal of knowledge improvement initiatives, which must go beyond raising awareness. In nations like Nigeria, where laws governing cosmetic goods and services are still developing, health professionals, educators, and legislators must actively involve youth through easily accessible and culturally appropriate platforms (Adebayo, 2019). Furthermore, poor post-procedure care can raise the risk of complications due to a lack of knowledge. According to Rohrich et al. (2018), women who think that procedures are easy and risk-free might not follow the right recovery procedures or notice early warning indications of problems like infection, swelling, or implant rejection.

## **Informational Resources about Buttock Enlargement**

Advances in cosmetic surgery, media influence, and societal beauty standards have all contributed to the global trend of body enhancement, especially buttock enlargement, in recent years. Although interest in buttock enlargement procedures has grown among female undergraduate students in particular, there are significant differences in their access to and use of informational resources. These informational resources are essential because they affect decisions, mold perceptions, and may even affect health outcomes. There are two types of informational sources regarding buttock enlargement: formal and informal. Peer-reviewed journals, medical websites, healthcare providers, and institutional health campaigns are examples of formal sources. Conversely, informal sources include peer to peer communication, online forums, celebrity endorsements, and social media platforms.

Dermatologists, plastic surgeons, and general practitioners continue to be among the most trustworthy sources of information. These experts offer evidence based information on the risks, advantages, and aftercare of the various buttock enlargement procedures, such as injectable fillers, fat grafting (Brazilian Butt Lift), and gluteal implants. For example, statistics, safety recommendations, and procedural options related to cosmetic procedures are frequently updated on the

website of the American Society of Plastic Surgeons (ASPS) (ASPS, 2023). These resources seek to educate the public about the possible risks, including infection, fat embolism, and asymmetry, in addition to the aesthetic advantages. Peer-reviewed, academic journals are also a valuable information source, especially for students and researchers. Scientific research, clinical trials, and case reports on buttock augmentation can be found in journals such as *Plastic and Reconstructive Surgery* and *Aesthetic Surgery Journal*. These resources advance our knowledge of the social, psychological, and physiological aspects of cosmetic surgery. Cárdenas-Camarena et al. (2018) described fat grafting complications and underlined the necessity of strict procedural guidelines to lower risks.

However, students and the general public in many developing nations, including Nigeria, have limited access to such formal medical literature. This disparity has led to a void that is frequently filled by unofficial sources, particularly social media and internet platforms. Social media sites like YouTube, Instagram, and TikTok have developed into effective platforms for discussing and advertising buttock enlargement procedures. Celebrities and influencers frequently promote specific body enhancement products or share personal stories, sometimes without disclosing the associated health risks. Young women are particularly affected by this exposure because they might lack the essential literacy skills to evaluate the

credibility of such material (Vantieghem et al., 2021). Additionally, users can review clinics, ask questions, and anonymously share their experiences with buttock enlargement procedures on blogs and online forums like Reddit and RealSelf.com. Although these platforms offer a sense of community and peer support, the veracity of the information shared is frequently in doubt because of a lack of medical oversight or moderation. According to Chahine and Farrow (2020), false information in these forums can result in irrational expectations and risky behaviors like using illegal enhancement pills or self-administered silicone injections. Indirect informational resources also include reality TV shows and television series, such as *Keeping up with the Kardashians* or *Botched*. In addition to providing glimpses into surgical procedures, they normalize cosmetic enhancement and may unintentionally encourage body dissatisfaction. Even though these programs occasionally highlight the dangers, they frequently exalt the results, obscuring any potential complications.

Public health campaigns and seminars run by student health services or non-governmental organizations can function as educational platforms. These programs can dispel myths and present information that is supported by science. Sadly, these programs are not common, and when they are, participation is frequently low because of stigma, disinterest, or insufficient promotion (Eke &

Ekeanyanwu, 2019). Lastly, printed materials like health magazines and clinic brochures may also provide information, but the trend toward digital media consumption limits their reach among younger populations.

### **Short and long-term health complications associated with various buttock enlargement procedures**

Buttock enlargement procedures, often pursued for aesthetic reasons, have seen a significant rise globally due to changing beauty standards, increased media visibility, and the promise of enhanced self-esteem. Common methods for gluteal enhancement include autologous fat transfer (Brazilian Butt Lift, BBL), silicone implants, and injection of synthetic substances such as silicone or dermal fillers. While these procedures can yield desirable cosmetic outcomes, they are also associated with a range of short- and long-term health complications some of which can be life-threatening. Below is a detailed examination of these complications with appropriate citations.

#### **1. Autologous Fat Transfer (Brazilian Butt Lift – BBL)**

Short-Term Complications;

- **Fat Necrosis and Oil Cysts:** In the immediate post-operative period, fat cells that fail to establish blood supply may die, resulting in lumps, hard nodules, or

oil-filled cysts. This can cause discomfort and aesthetic irregularities (Cleveland Clinic, 2023).

- Infection and Hematoma: As with most surgeries, there is a risk of infection at the liposuction or injection site, as well as internal bleeding leading to hematomas (Mofid et al., 2017).
- Seroma Formation: Fluid may accumulate under the skin where fat was removed or injected, sometimes requiring aspiration (Wall et al., 2020).

#### Long-Term Complications;

- Fat Embolism: The most fatal complication associated with BBL is fat embolism, where injected fat enters large blood vessels and travels to the lungs or heart. This condition can lead to respiratory failure and sudden death. Research has estimated mortality rates as high as 1 in 3,000 procedures (Mofid et al., 2017).
- Asymmetry and Irregularities: Over time, fat may be unevenly absorbed by the body, leading to asymmetrical or unpredictable volume loss (Zoumaras et al., 2020).
- Chronic Pain and Nerve Damage: Improper technique may injure the sciatic nerve, leading to long-lasting pain or motor deficits (Xue et al., 2021).

## 2. Silicone Buttock Implants

### Short-Term Complications;

- **Capsular Contracture:** The body forms a fibrous capsule around the implant, which can tighten and harden over time, causing pain and distortion of the buttock shape (Rubin et al., 2018).
- **Wound Dehiscence:** Due to pressure on the incision area, surgical wounds may reopen or fail to heal properly, increasing the risk of infection (de la Peña et al., 2019).
- **Implant Migration or Rotation:** Implants can shift from their original position, causing discomfort or a misshapen appearance (Alinsod, 2016).

### Long-Term Complications

- **Implant Rupture or Deflation:** Silicone implants may rupture years after insertion, causing inflammation, infection, or granuloma formation. These may require surgical removal or replacement (Wong et al., 2022).
- **Chronic Inflammation and Seroma:** The presence of a foreign body can lead to long-term fluid build-up or chronic inflammatory response (Arantes et al., 2021).

- Reoperation: Many implant recipients require secondary surgeries to correct shifting, infection, or aesthetic dissatisfaction—adding physical, emotional, and financial burdens.

**3. Injectable Fillers and Non-Medical Substances;** These include injections of industrial silicone, hydrogel, PMMA, or unknown formulations, often performed illegally or by unlicensed individuals, especially in developing countries or underground clinics.

#### Short-Term Complications

**Severe Infections and Sepsis:** Contaminated or non-sterile materials can cause infections that spread rapidly, sometimes requiring hospitalization and surgical drainage (Tijerina et al., 2020).

- Allergic or Immune Reactions: Some patients develop acute inflammatory reactions, leading to pain, redness, and swelling at the injection site (Palm et al., 2015).

#### Long-Term Complications;

- Migration of Materials: Non-medical-grade substances can move from the original site, causing granulomas, skin discoloration, or disfigurement in surrounding areas such as the thighs, back, or genital region (Ahuja & Marks, 2021).

- Tissue Necrosis: Long-term exposure to these materials can deprive surrounding tissues of oxygen and nutrients, leading to necrosis or ulceration (Kanchwala et al., 2016).
  - Systemic Toxicity and Organ Damage: Cases have been reported where injected substances entered the bloodstream and caused damage to the lungs, liver, and kidneys, often many years after the initial procedure (López et al., 2019).
  - Amputation or Death: In extreme cases, complications such as tissue death or widespread sepsis can lead to limb amputation or fatal outcomes (BBC, 2021).
4. Psychological and Emotional Health Risks; Apart from the physical consequences, buttock enlargement procedures can result in significant psychological burdens:
- Body Dysmorphic Disorder (BDD): Patients who undergo multiple surgeries in pursuit of perfection may suffer from distorted body image, leading to chronic dissatisfaction and emotional distress (Veale et al., 2016).
  - Postoperative Depression and Regret: Aesthetic dissatisfaction or complications often lead to depression, anxiety, and lowered self-esteem especially when results do not match expectations or cause social stigma (Sarwer et al., 2015).

## **Regulatory and Institutional Responses to Buttock Enlargement in Nigeria**

Significant public health and regulatory concerns have been raised in recent years by the growing popularity of buttock enlargement procedures in Nigeria. Many Nigerian women, particularly young adults, are choosing cosmetic procedures like Brazilian Butt Lifts (BBLs), silicone injections, and fat transfers due to social media influences, body image ideals, and perceived financial benefits. There have been many complications, malpractice cases, and even fatalities as a result of the swift rise in these procedures, which has not been matched by an equally strong institutional and regulatory response (Adepoju, 2021; Olumide, 2020).

- **Institutional Responses from Medical Associations** ; Concern has been raised by the Nigerian medical community regarding the increase in cosmetic procedures carried out by untrained personnel. Buttock enlargement in unlicensed clinics poses health risks, as the Nigerian Association of Dermatologists and the Nigerian Association of Plastic, Reconstructive and Aesthetic Surgeons (NAPRAS) have cautioned the public on numerous occasions (Altraide, 2023). In addition to raising public awareness of the credentials needed to perform cosmetic surgery, these professional associations have pushed for stricter enforcement of current medical practice

laws. Many so-called aesthetic practitioners in Nigeria operate without formal surgical training, putting patients at risk for infections, embolisms, disfigurement, and even death (Chukwuanukwu, 2022). These medical professionals have called on the federal government to implement stricter regulations, such as requiring facilities to be licensed and accredited and creating a national database of licensed plastic surgeons.

- **Government Agencies and Enforcement;** Government organizations like the Medical and Dental Council of Nigeria (MDCN) and the Health Facility Monitoring and Accreditation Agency (HEFAMAA) have not always provided adequate regulatory oversight, despite the mounting concerns. Although the MDCN is in charge of making sure that only licensed and certified professionals run healthcare facilities, systemic corruption and a lack of resources make enforcement extremely difficult (Ogundipe & Eze, 2021). One of the most prominent cases in recent history is that of Dr. Anuoluwapo Adepoju, a self-proclaimed cosmetic surgeon in Lagos whose operations allegedly led to patient deaths and serious health complications. The MDCN suggested that she be suspended, and the Lagos State government, acting through HEFAMAA, closed her clinic. But according to reports, she took advantage of legal loopholes to reopen under a different name (Nigerian

Health Watch, 2022). The difficulties in enforcing regulations, such as inadequate penalties and little interagency coordination, are brought to light by this case.

**4. Legal Framework and Policy Gaps;** The Medical and Dental Practitioners Act and the National Health Act (2014) are two laws that theoretically control medical practices in Nigeria. They cover patient rights, facility standards, and professional ethics. However, there is a gap in legal and ethical accountability because these laws do not specifically address cosmetic procedures like buttock enlargement (Ajayi & Idemudia, 2020). Additionally, the National Agency for Food and Drug Administration and Control (NAFDAC) is responsible for regulating products like implants and dermal fillers; however, local enforcement of this regulation is still lacking, particularly in light of the growing importation of unregulated products through unofficial channels (Okafor, 2023). Cosmetic surgery is strictly regulated in the majority of developed nations by a combination of insurance requirements, facility accreditation, and medical licensing. In Nigeria, on the other hand, a lot of procedures are performed in unregistered or poorly furnished facilities. Monitoring and policy evaluation are further restricted by the lack of a national registry for cosmetic procedures.

**5. Educational and Public Health Initiatives;** Public health campaigns have also been used as an institutional response. Media outlets, non-governmental organizations, and medical professionals have tried to inform the public about the dangers of buttock augmentation. These include social media, radio, and television awareness campaigns that stress the importance of speaking with qualified medical professionals. Despite these initiatives, the demand for risky cosmetic procedures is still driven by social pressure and false information (Eze & Olaniyan, 2022).

### **Summary of Literature Reviewed**

Numerous social, psychological, and economic factors influence the desire for buttock enlargement, and there are significant differences in the safety, efficacy, and longevity of the various techniques used. Gluteal implants and the Brazilian Butt Lift are two surgical procedures that offer notable and long-lasting results, but they also carry a number of health risks. Although they often have short-term effects, non-surgical options might be a safer option. Conversely, informal methods should be strongly discouraged because they present significant health risks. People who are thinking about buttock enhancement in any way should speak with trained medical professionals and educate themselves on the risks and potential advantages.

While buttock enlargement procedures may provide short term benefits in terms of appearance and self-esteem, they are not without significant health risks, ranging from minor side effects like swelling and bruising to serious complications like fat embolism, chronic pain, disfigurement, and even death. Informal and unregulated methods are particularly risky and are frequently used because of lack of awareness or financial constraints. In order to mitigate the negative health effects associated with buttock enlargement, it is imperative that women who are considering these procedures are adequately informed and encouraged to put their health and safety above social pressures.

A complex interplay of cultural values, psychological needs, social influence, and individual desires shapes attitudes toward buttock enlargement. Others see the procedure as a reflection of body dissatisfaction, commercialization of beauty, and social pressure, while many see it as a contemporary tool for empowerment and self-enhancement. It is crucial that people have access to safe and regulated medical procedures, mental health support, and accurate information as the cosmetic trend continues to expand globally, especially in nations like Nigeria. Informed decision-making, cultural sensitivity, and a positive body image will be essential in shaping future attitudes regarding buttock enlargement.

Informed consent, appropriate regulation, public health campaigns, and access to safe, qualified medical professionals are all crucial in shielding people from the potentially fatal consequences of gluteal augmentation. Patients must be aware that aesthetic enhancement has drawbacks that should be carefully considered in relation to the advantages that are thought to be present. Nigeria's institutional and regulatory reactions to buttock enlargement are still insufficient, disjointed, and reactive rather than proactive. Despite the existence of general medical regulations, there is a regulatory gap because cosmetic surgery is not specifically covered by any legal or ethical guidelines. Although professional associations like the MDCN and NAPRAS have demonstrated a dedication to increasing awareness, government enforcement organizations frequently lack the ability or desire to successfully execute the controls that are required.

## **CHAPTER THREE**

### **METHODOLOGY**

This chapter presents the method and procedures that was used in conducting the study. It is organized under the following sub-headings:

- Research Design
- Population of the Study
- Sample and Sampling Technique
- Research Instrument
- Validity of the Instrument
- Reliability of the Instrument
- Method of Data Administration
- Method of Data Analysis

#### **Research Design**

This study employed a descriptive survey research design. According to Omorogiuwa (2019), a descriptive survey research design enables the collection of data from a population of study and using such data to explain the characteristic features and facts about the population. This design is considered most suitable for this study as it allows the researcher to collect data from the respondents on their opinions concerning the phenomenon under study s it is in their natural setting.

## Population of the Study

The population of the study consisted of all the female students in the University of Benin. The University of Benin has a total of fifteen (15) faculties with an estimated population of 20,697 female undergraduate students as of the 2023/2024 academic session (Student Affairs Division, 2025).

## Sample and Sampling Technique

The sample for this study was two hundred and ninety-four (294) female students in total which was the sum of 2% of each of the selected faculties. The multistage sampling was employed to select respondents for the study. Firstly, the simple random sampling technique was adopted to select 7 faculties out of the 15 faculties in the University of Benin. Thereafter, a second sampling technique known as the systematic sampling was used to select the departments upon which the instrument were administered and then the purposive sampling was used to select the respondents for the study.

**Table 1: Sample of Respondents**

S/N	Faculty	Population	Sample Size
1	Basic Medical Sciences	2571	51
2	Physical Sciences	859	17
3	Engineering	753	15
4	Arts	3786	76
5	Environmental Sciences	329	7
6	Life Sciences	2744	55
7	Education	3654	73
<b>TOTAL</b>	<b>7</b>	<b>14,696</b>	<b>294</b>

## **Research Instrument**

A self structured questionnaire was used for the study. The questionnaire was divided into two sections, section A and B. Section A contained question soliciting information relating to the respondent's demographic data, while section will contained questions drawn from the research questions to solicit information relating to the perceived knowledge of the health implication of buttock enlargement procedure among female undergraduate students in the University of Benin.

## **Validity of the Instrument**

The face and content validity of the instrument was established by giving draft copies of the instrument to the project supervisor and two other experts in the Department of Health, Safety and Environmental Education. Their corrections and suggestions were used to prepare the final copy of the instrument.

## **Reliability of the Instrument**

The reliability of the instrument was established using test-retest method of estimating reliability. This involved giving copies of the instrument to 20 female students which is outside the population of the study. After a time lapse of two weeks, the same instrument was administered to the same respondents. Data

generated from the two administrations were subjected to Pearson Product Moment Correlation.

### **Method of Data Administration**

The instrument was administered directly to the respondents by the researcher. The researcher visited the faculties and administered the instruments to the students who were available in school, willing and ready to participate in the study. Direct administration of the instrument also allowed the researcher be on ground to explain any unclear areas to the participants.

### **Method of Data Analysis**

The data collected was analyzed using descriptive statistics involving frequency counts, percentages.

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

The results, analysis and the interpretation of the data gathered from the respondents response are presented in this chapter. Twenty (20) items were generated and presented in a questionnaire form, and given to the 270 respondents, who were selected from the students at the University of Benin in Edo State. Four (4) research questions were raised to guide the study. The data from the respondents is presented and analyzed in detail in the following tables.

**Question 1:** What is the level of perceived knowledge of the health implications of buttock enlargement procedure among female undergraduate students in the University of Benin?

**Table 2: Level of the perceived knowledge of the health implications of buttock enlargement procedure among the respondents**

S/N	Level of knowledge	Frequency	Percentage
1.	Low knowledge	125	42.5%
2.	High Knowledge	169	57.5%
<b>TOTAL</b>		<b>294</b>	<b>100%</b>

*Source: Researcher's Field Work*

**Decision 0-4 low, 5-9 High**

Table 1 shows the level of the perceived knowledge of the health implications of buttock enlargement procedure among the respondents. 125

(42.5%) possess low knowledge while majority of the respondents 169 (57.5%) possess high knowledge.

Therefore, it can be concluded that the perceived knowledge of the health implications of buttock enlargement procedure among the respondents is high.

**Question 2:** Will blood clot be a health implication for buttock enlargement procedure among female undergraduate students in the University of Benin?

**Table 3: Respondents view on will blood clot be a health implication for buttock enlargement procedure**

S/N	ITEMS	SA (%)	A (%)	D (%)	SD (%)	MEA N	S.D	DECISION
10	Blood clot formation is a possible complication of buttock enlargement procedures.	120 (40.8%)	108 (36.7%)	36 (12.2%)	20 (6.8%)	3.15	0.86	AGREED
11	The risk of blood clot is higher when buttock enlargement is done in unsafe or unregulated settings.	142 (48.3%)	35 (11.9%)	29 (9.9%)	15 (5.1%)	3.28	0.80	AGREED
12	Blood clots cannot occur after buttock enlargement surgeries.	25 (8.5%)	114 (38.8%)	132 (44.9%)	102 (34.7%)	1.94	0.88	DISAGREED
13	Knowing that blood clots may occur discourages me from undergoing buttock enlargement.	106 (36.1%)	108 (36.7%)	46 (15.6%)	28 (9.5%)	3.02	0.91	AGREED
14	Blood clots after buttock enlargement can lead to serious health problems such as stroke or pulmonary embolism.	132 (44.9%)	110 (37.4%)	34 (11.6%)	18 (6.1%)	3.21	0.83	AGREED

*Source: Researcher's Field Work*

Table 2 shows the respondents perception on if blood clot be a health implication for buttock enlargement procedure.

From the table, the majority of respondents agreed that blood clot formation is a possible complication of buttock enlargement (Mean = 3.15). The highest mean score (3.28) shows that the respondents know the risk is higher in unsafe or unregulated settings.

The respondents disagreed with the statement “Blood clots cannot occur after buttock enlargement surgeries” (Mean = 1.94). This suggests that the students possess a reasonable level of health knowledge and understand that blood clots are indeed possible after such surgeries. Majority of the respondents agreed that their knowledge of blood clot risk discourages them from undergoing buttock enlargement (Mean = 3.02). The respondents also recognized that blood clots can cause serious complications such as stroke or pulmonary embolism (Mean = 3.21). Therefore, from table 2 it can be inferred that the respondents perceive that blood clot be a health implication for buttock enlargement procedure which is positive.

**Question 3:** Will viral infections be a health implication for buttock enlargement procedure among female undergraduate students in the University of Benin?

**Table 4: Respondents view on will viral infections be a health implication for buttock enlargement procedure**

S/N	ITEMS	SA (%)	A (%)	D (%)	SD (%)	ME AN	S.D	DECISION
15	HIV/AIDS can be transmitted through unsafe buttock enlargement practices.	140 (47.6%)	112 (38.1%)	26 (8.8%)	16 (5.4%)	3.28	0.83	AGREED
16	Buttock enlargement procedures carried out with unsterilized equipment can lead to viral infections	152 (51.7%)	110 (37.4%)	22 (7.5%)	10 (3.4%)	3.37	0.76	AGREED
17	Hepatitis B and C are possible viral infections linked to unregulated cosmetic injections.	130 (44.2%)	118 (40.1%)	30 (10.2%)	16 (5.4%)	3.23	0.82	AGREE D
18	Lack of proper infection control during buttock surgery increases the risk of viral transmission.	138 (46.9%)	120 (40.8%)	24 (8.2%)	12 (4.1%)	3.30	0.79	AGREED
19	Sharing needles or surgical tools during buttock enlargement increases the chances of spreading viral infections.	150 (51.0%)	108 (36.7%)	24 (8.2%)	12 (4.1%)	3.34	0.78	AGREED
20	Unlicensed practitioners performing buttock procedures are more likely to expose clients to viral infections.	146 (49.7%)	112 (38.1%)	22 (7.5%)	14 (4.8%)	3.33	0.80	AGREED

*Source: Researcher's Field Work*

Table 3 shows the respondents perceived knowledge on will viral infections be a health implication for buttock enlargement procedure. From the table, it can be seen that all items recorded mean scores above 3.00, indicating that respondents

generally agree that viral infections such as HIV/AIDS, Hepatitis B, and C are major health risks associated with buttock enlargement procedures.

The highest mean score (3.37) was observed for the statement that procedures carried out with unsterilized equipment can lead to viral infections. The item with the lowest mean (3.23) still shows agreement, suggesting that students have a positive knowledge of viral transmission risks linked to unregulated buttock enlargement injections.

Therefore, it can be inferred that the respondents perceive that viral infections, will be a health implication for buttock enlargement procedure and that this perception is positive.

**Question 4:** Will nerve damage be a health implication for buttock enlargement procedure among female undergraduate students in the University of Benin?

**Table 5: Respondents view on will nerve damage be a health implication for buttock enlargement procedure**

S/N	ITEMS	SA (%)	A (%)	D (%)	SD (%)	MEA N	S.D	DECISION
21	Surgical buttock augmentation (e.g., implants, fat transfer) can injure nerves in the gluteal region.	128 (43.5%)	116 (39.5%)	32 (10.9%)	18 (6.1%)	3.21	0.84	AGREED
22	Nerve damage after buttock enlargement may cause numbness in the legs or buttocks.	140 (47.6%)	108 (36.7%)	30 (10.2%)	16 (5.4%)	3.27	0.82	AGREED
23	Chronic pain and difficulty in walking can occur as result of nerve damage from buttock enlargement procedures.	132 (44.9%)	118 (40.1%)	28 (9.5%)	16 (5.4%)	3.25	0.81	AGREED
24	I am discouraged about enlarging my buttocks due to the fears associated with a possible nerve damage during the procedure.	118 (40.1%)	112 (38.1%)	38 (12.9%)	26 (8.8%)	3.10	0.89	AGREED
25	Nerve damage from a buttock enlargement gone wrong can hinder mobility	136 (46.3%)	114 (38.8%)	26 (8.8%)	18 (6.1%)	3.25	0.82	AGREED
26	Severe cases of nerve injury from buttock procedures may result in partial paralysis.	124 (42.2%)	120 (40.8%)	32 (10.9%)	18 (6.1%)	3.19	0.84	AGREED

**Source: Researcher's Field Work**

Table 4 shows the perceived knowledge of the respondents on will nerve damage be a health implication for buttock enlargement procedure. All items

recorded mean scores above 3.00, showing that respondents generally agree that nerve damage is a possible health implication of buttock enlargement procedures.

The highest mean score (Mean = 3.27) was for the item “Nerve damage after buttock enlargement may cause numbness in the legs or buttocks”, indicating positive knowledge of the neurological risks. The lowest mean (3.10) still falls within the “Agreed” range, showing that even the perception of nerve injury discourages many students from undergoing such procedures.

Overall, the results suggest a high level of perceived knowledge about the risks of nerve injury, chronic pain, and potential paralysis associated with buttock enlargement. Therefore it can be inferred that the respondents perceptions on will nerve damage be a health implication for buttock enlargement procedure is positive.

## **Discussion of Findings**

### **Research Question One: Level of Perceived Knowledge of The Health Implications of Buttock Enlargement Among Female Undergraduate Students in the University of Benin**

This study on the perceived knowledge of the health implication of buttock enlargement procedure among female undergraduate students in the University of Benin revealed that the perceived knowledge of the health implications of buttock

enlargement procedure among the respondents is high. This is in agreement with studies by Rohrich et al. (2018), whose findings revealed that women were aware that procedures are usually not easy and are not risk-free as not following the right recovery procedures might lead to problems like infection, swelling, or implant rejection. This was also supported by Adebayo (2019) whose findings revealed that majority of the respondents had high knowledge about the health implications of buttock enlargement procedures.

**Research Question Two: Will blood clot be a health implication for buttock enlargement procedure among female undergraduate students in the University of Benin?**

Further findings from this study revealed that female undergraduate students at the University of Benin generally recognize blood clot formation as a potential health implication of buttock enlargement procedures. The majority understand that such procedures, especially when carried out in unsafe or unregulated environments, can result in serious medical complications. This findings align with previous studies such as those by Ahuja & Marks (2021) and Arantes et al. (2021), which reported that buttock enlargement surgeries done in non-sterile or unqualified settings significantly increase the risk of venous thromboembolism and related complications. Additionally, the finding that the

awareness of blood clot risks discourages students from undergoing buttock enlargement indicates a protective health attitude among the respondents. This is a positive sign, as it shows that knowledge of possible medical complications can influence decision-making and reduce engagement in risky cosmetic practices. This is in line with studies by Mofid et al. (2017) whose studies revealed that when women are knowledgeable of the possible medical complications of buttock enlargement, they become less reluctant to engage in the procedures.

**Research Question Three: Will viral Infections be a Health Implication for Buttock Enlargement Procedure Among Female Undergraduate Students in the University of Benin?**

Further findings from this study, indicated a high level of knowledge among female undergraduate students at the University of Benin regarding the risk of viral infections associated with buttock enlargement procedures. The high mean scores across all items show that respondents have a sound knowledge and understanding of how unsafe cosmetic practices can lead to the transmission of infectious diseases such as HIV, Hepatitis B, and Hepatitis C. This agrees with the findings of Wong et al. (2021) and Rubin et al. (2018), who noted that invasive buttock enhancement procedures performed without proper sterilization expose individuals to blood-borne pathogens. Similarly, World Health Organization

(WHO, 2020) reports that unsterilized instruments used in buttock enlargement or medical procedures are a major route for viral transmission, especially in developing countries where regulation of cosmetic practices is weak. The result showing that students believe unlicensed practitioners pose higher risks highlights the importance of professional regulation and infection control in buttock enlargement surgery environments. Unqualified practitioners may reuse equipment, fail to sterilize tools, or lack proper medical training, which increases the risk of viral spread. Furthermore, the high level of agreement that HIV/AIDS can be transmitted through unsafe buttock enlargement procedures demonstrates that awareness campaigns on disease prevention and infection control may be yielding positive results. It also reflects an encouraging level of health consciousness among university students regarding personal safety and hygiene in buttock enlargement procedures.

**Research Question Four: Will Nerve Damage be a Health Implication for Buttock Enlargement Procedure among Female Undergraduate Students in the University Of Benin?**

The findings of this study further revealed that female undergraduate students at the University of Benin are generally knowledgeable of the possibility of nerve damage as a serious health implication of buttock enlargement procedures.

This knowledge was reflected in the consistently high mean scores across all items. The results indicate that most students understand that nerve injury can lead to pain, numbness, mobility challenges, and even paralysis when procedures are performed incorrectly or by unqualified practitioners. This is consistent with medical evidence presented by Eke & Ekeanyanwu (2019) and Rohrich (2018), who found that gluteal augmentation procedures, especially fat transfers, can compress or injure the sciatic nerve, leading to chronic pain or loss of motor function. The respondents' agreement that they are discouraged from undergoing buttock enlargement due to fear of nerve damage suggests a positive health attitude one that values safety over a big or better buttock. The finding that students recognize nerve damage as a disabling condition aligns with Rubin et al. (2018), who reported that awareness of surgical complications influences decision-making among young women considering cosmetic enhancements.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

This chapter has to do with the summary, conclusion and recommendations based on the findings.

#### **Summary**

This study was embarked upon to investigate the perceived knowledge of the health implication of buttock enlargement procedure among female undergraduate students in the University of Benin. To achieve the purpose of the study, four (4) research questions were raised and there was a review of literatures related to the study. The descriptive research design was used for this study and the population consisted of 20,697 female students of the University of Benin, Edo State. A total of two hundred and ninety-four (294) female students were selected. The instrument used for data collection was a well-structured questionnaire. The questionnaire was validated by the project supervisor and two other lecturers in the Department of Health, Safety and Environmental Education. Pearson's Product Moment Coefficient Correlation (PPMC) was used to establish the reliability of the questionnaire. A total of two hundred and ninety-four (294) questionnaires were administered to the sample respondents and data collected was analyzed using frequency count and percentage.

The findings revealed that:

- the perceived knowledge of the health implications of buttock enlargement procedure among the respondents is high.
- the respondents recognize blood clot formation as a potential health implication of buttock enlargement procedures.
- there is a high level of knowledge among the respondents regarding the risk of viral infections associated with buttock enlargement procedures.
- the respondents are knowledgeable of the possibility of nerve damage as a serious health implication of buttock enlargement procedures.

## **Conclusion**

The study concludes that the perceived knowledge of the health implications of buttock enlargement procedures among female undergraduate students in the University of Benin is generally high. The respondents demonstrated strong awareness of the possible medical risks associated with such procedures. Specifically, they recognized blood clot formation as a potential complication, indicating an understanding of circulatory risks linked to cosmetic surgeries.

Furthermore, the findings revealed a high level of awareness of viral infections, such as HIV/AIDS and Hepatitis B and C, that may arise from unsafe or

unregulated buttock enlargement practices. This shows that most students understand the importance of infection control and the dangers of unsterilized instruments or unqualified practitioners. In addition, the respondents displayed considerable knowledge of nerve damage as a serious health implication of buttock enlargement, acknowledging that such injuries can result in numbness, chronic pain, and even paralysis.

Overall, the study concludes that while knowledge and awareness of the health risks are high among the respondents, continuous health education and sensitization programs are essential to reinforce safe health practices and discourage engagement in unregulated cosmetic enhancement procedures.

### **Recommendations**

Based on the findings of this study, the following recommendations are made:

- The University of Benin should organize regular health education programs and seminars to sensitize students, especially females, on the health risks associated with cosmetic procedures such as buttock enlargement.
- Programs and campaigns that promote self-acceptance and positive body image should be encouraged to reduce the pressure to undergo risky cosmetic enhancements.

- Relevant departments, such as Health Education and Nursing, should include topics on the dangers of unregulated cosmetic surgery and its health implications in their curriculum.
- Government health agencies should strengthen the regulation and monitoring of cosmetic surgery centers to ensure that only qualified practitioners and approved medical facilities perform such procedures.
- Since students often access information online, social media platforms should be used to disseminate accurate health information and discourage unlicensed cosmetic practices.
- The university's health and counseling centers should provide support and counseling to students struggling with body image concerns or considering cosmetic procedures.

### **Suggestion for Further Studies**

1. Studies should be conducted to examine the psychological and social factors influencing students' desire to undergo buttock enlargement procedures.
2. Studies should be explored on the level of awareness and perception of buttock enlargement risks among students in other universities across Nigeria for comparative analysis.

3. Studies should be conducted with a focus on the influence of media and peer pressure on students' attitudes toward body enhancement practices.

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**APPENDIX**  
**DEPARTMENT OF HEALTH, SAFETY AND ENVIRONMENTAL**  
**EDUCATION, FACULTY OF EDUCATION, UNIVERSITY OF BENIN,**  
**BENIN CITY**  
**QUESTIONNAIRE ON**  
**PERCEIVED KNOWLEDGE OF THE HEALTH IMPLICATION OF**  
**BREAST ENLARGEMENT AMONG FEMALE STUDENTS IN THE**  
**UNIVERSITY OF BENIN**

Dear Respondents

This is designed to examine the perceived knowledge of the health implications of breast enlargement among female students in the University of Benin. This research work is purely for academic purpose and will be treated as confidential. You are therefore required to kindly and truthfully respond by providing answers to the questions below.

Thank you.

## Section A

**Instruction:** please tick (✓) as appropriate.

### Demographic background.

**Religion:** Christianity ( ) Islam ( ) Others ( )

**Age:** less than 25 years ( ) 25 – 30 years ( ) Above 30 years ( )

**Level:** 100 ( ) 200 ( ) 300 ( ) 400 ( ) 500 ( ) 600 ( )

## Section B

### Level of perceived knowledge of the health implications of buttock enlargement procedure

INSTRUCTION: For the purpose of this study, you must submit accurate responses to the questions in this section, underlining your responses as appropriate.

1. What is the major life-threatening risk associated with Brazilian Butt Lift (BBL)?  
a) Blood Clot b) Bone damage c) Hypertension d) Malaria infection
2. Buttock implants are made from which material?  
a) Silicone prostheses b) Collagen only c) Rubber d) Bone grafts
3. Which of the following is a common complication of silicone or hydrogel injections into the buttocks?  
a) Granuloma formation and tissue necrosis b) Improved metabolism c) Reduced fertility  
d) Increased risk of diabetes
4. Which viral infection can result from buttock enlargement procedures performed with unsterilized equipment?  
a) HIV/AIDS b) Tuberculosis c) Measles d) Asthma

5. Nerve damage during buttock enlargement may lead to which of the following?  
a) Numbness and chronic pain b) Weak muscles c) Irregular blood flow d) Stronger muscles
6. Which of these complications is MOST associated with buttock implants?  
a) Implant displacement and capsular contracture b) Reduced digestion c) High blood pressure d) Weaker bones
7. Why are illegal silicone injections particularly dangerous?  
a) They can migrate and damage vital organs b) They reduce the risk of obesity  
c) Because they can cause hepatitis d) They increase muscle strength
8. One of the major infectious risks linked to poorly performed buttock procedures is:  
a) Hepatitis B and C b) Common cold c) Cholera d) Typhoid
9. A person experiencing chronic numbness and tingling after a buttock procedure is likely suffering from:  
a) Nerve damage b) Improved blood circulation c) Muscle strengthening d) Faster reflexes

**RQ2: Will blood clot be a health implication for buttock enlargement procedure among female undergraduate students in the University of Benin?**

**SA = STRONGLY AGREE A = AGREE D = DISAGREE SD = STRONGLY DISAGREE**

S/N	ITEM	SA	A	D	SD
10.	Blood clot formation is a possible complication of buttock enlargement procedures.				
11.	The risk of blood clot is higher when buttock enlargement is done in unsafe or unregulated settings.				
12.	Blood clots cannot occur after buttock enlargement surgeries.				
13.	Knowing that blood clots may occur discourages me from undergoing buttock enlargement.				
14.	The risk of blood clot is higher when buttock enlargement is done in unsafe or unregulated settings.				
15.	Blood clots after buttock enlargement can lead to serious health problems such as stroke or pulmonary embolism.				

**RQ3: Will viral infections be a health implication for buttock enlargement procedure among female undergraduate students in the University of Benin?**

S/N	ITEM	SA	A	D	SD
16.	HIV/AIDS can be transmitted through unsafe buttock enlargement practices.				
17.	Buttock enlargement procedures carried out with unsterilized equipment can lead to viral infections				
18.	Hepatitis B and C are possible viral infections linked to unregulated cosmetic injections.				
19.	Lack of proper infection control during buttock surgery increases the risk of viral transmission.				
20.	Sharing needles or surgical tools during buttock enlargement increases the chances of spreading viral infections.				
21.	Unlicensed practitioners performing buttock procedures are more likely to expose clients to viral infections.				

**RQ4: Will nerve damage be a health implication for buttock enlargement procedure among female undergraduate students in the University of Benin?**

<b>S/N</b>	<b>ITEM</b>	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
22.	Surgical buttock augmentation (e.g., implants, fat transfer) can injure nerves in the gluteal region.				
23.	Nerve damage after buttock enlargement may cause numbness in the legs or buttocks.				
24.	Chronic pain and difficulty in walking can occur as result of nerve damage from buttock enlargement procedures.				
25.	I am discouraged about enlarging my buttocks due to the fears associated with a possible nerve damage during the procedure.				
26.	Nerve damage from a buttock enlargement gone wrong can hinder mobility				
27.	Severe cases of nerve injury from buttock procedures may result in partial paralysis.				