

**PERCEIVED KNOWLEDGE OF THE HEALTH IMPLICATION OF BREAST
ENLARGEMENT PRODUCTS AMONG FEMALE STUDENTS IN THE
UNIVERSITY OF BENIN**

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BENIN CITY**

DECEMBER, 2025

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**A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF HEALTH, SAFETY
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CERTIFICATION

We, the undersigned, acknowledge that this research work was carried out by **ABIGAIL Favour Ndubueze** with matriculation number **EDU2203593** in the Department of Health, Safety and Environmental Education, Faculty of Education, University of Benin.

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DEDICATION

This work is dedicated to God almighty.

ACKNOWLEDGEMENTS

The researcher is deeply indebted to her dedicated and diligent supervisor, Dr. (Mrs.) Onobumeh, whose exceptional mentorship, insightful advice and unwavering commitment greatly contributed to the successful completion of this research work. Her patience, encouragement and constant guidance served as a source of inspiration throughout the course of this work. I pray that the Almighty God abundantly reward and bless her, for her remarkable efforts and kindness

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Her profound appreciation further goes to her beloved parents, Mr. and Mrs. Ndubueze, whose steadfast love, guidance, and unwavering support has been her greatest source of strength. Their constant encouragement, fervent prayers, financial assistance, and wise counsel have sustained her through every stage of this academic pursuit. She deeply values their sacrifices and devotion, which have made the successful completion of this program a reality. May God, in His infinite mercy, continue to bless, reward, and keep them both in good health and happiness.

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ABSTRACT

This study investigated the perceived knowledge of the health implications of breast enlargement products among female students of the University of Benin. Four research questions guided the study. The descriptive survey research design was used for the study. The population of the study was 20,697 consisting of all the female students in the University of Benin. The sample size for the study was two hundred and ninety-seven (297) female students which was the sum of 5% of the selected faculties for the study. The adopted a self-structured questionnaire as the instrument for this study which underwent the face and content validity by the research supervisor and two other experts in the department of Health, Safety and Environmental Education.

The findings revealed that societal beauty standards significantly shape female students' interest in and awareness of breast enlargement products. Media advertisements, online discussions, and digital content were found to play a major role in increasing students' knowledge of these products. The study further showed that social comparison and attraction motives influence students' curiosity and awareness, as many respondents often evaluate themselves against prevailing beauty norms. Additionally, digital platforms and social media emerged as the primary sources of information accessed by students. The findings also indicated that students possess knowledge of potential health implications associated with breast enlargement products. Specifically, many respondents recognized that such products may increase the risk of breast cancer, hormonal imbalance, and bacterial infections. Based on the conclusion it was recommended that they should be an increased health education program/activities such as peer led discussion that can be used to promote body positivity and discourages unhealthy beauty practices among female students.

CHAPTER ONE

INTRODUCTION

Background to the study

Breast enlargement has gained significant global attention as a cosmetic procedure and cultural phenomenon, fueled by evolving beauty standards, media influence, and advances in aesthetic surgery in recent years. Breast enlargement which is also referred to as breast augmentation, includes surgical or non-surgical methods that enlarge or change the shape of the breast, which is one of the most common cosmetic procedures in the world today (American Society of Plastic Surgeons, 2023). According to Adesina and Bello (2019) breast enlargement is a cosmetic or medical procedure, often sought by young women, aimed at increasing the size and altering the shape of the breast through surgical implants, hormone - based medications or non-clinical products. World Health Organization (2022) posited that breast enlargement is a surgical procedure involving the placement of implant of fat transfer to enlarge the breasts, often undertaken for cosmetic reasons, but it carries potential physical health and psychological risks.

Breast enlargement has become one of the most prominent and contentious cosmetic enhancement procedures in modern society, reflecting the convergence of personal self-image, medical advancement, and cultural ideals. Although attempts to alter the breast cosmetically date back to the late 19th century, with the first attempts using paraffin injections and silicone implants in the 1960s, the practice gained widespread acceptance in the late 20th and early 21st centuries (Almeida, 2021). Swami et al. (2022) stated that the popularity of breast enlargement is associated with societal ideals that link fuller breasts to femininity, attractiveness, and social desirability , and for many women, these perceived benefits from increased body

image to improved self-esteem are powerful motivators for getting the procedure done (Sarwer et al., 2017).

At its core, breast enlargement can be achieved through surgical and non-surgical methods. Implants made of silicone or saline, fat transfer (lipofilling), or hybrid techniques that combine implants and autologous fat are commonly used for surgical augmentation (Colwell & Breuing, 2019). Injectable fillers, hormone treatments, herbal creams, vacuum cleaners, and even unlicensed "natural" treatments promoted on social media are examples of non-surgical methods (Harris, 2018). Even though board-certified plastic surgeons typically follow safety procedures, there are still risks associated with their surgeries. The two main types of breast enlargement techniques are surgical augmentation, which typically involves silicone or saline implants, and non-surgical techniques, which include injectable fillers, fat grafting, and the use of herbal or hormonal products (Colwell & Breuing, 2019). Although surgical procedures are typically regulated and carried out by certified professionals, non-surgical techniques, particularly those involving unapproved substances, are frequently administered in informal settings, posing heightened risks of infection, tissue damage, and other serious complications (Harris, 2018). Even with surgical enlargement/augmentation, there are potential health consequences, such as capsular contracture, implant rupture, breast pain, interference with mammography, and, in rare cases, breast implant associated anaplastic large-cell lymphoma (BIA-ALCL) (Food and Drug Administration, 2020).

The concept of perceived knowledge which is what people think they know about a topic, regardless of how accurate that knowledge is, is essential to understanding health-related decision-making. Grogan (2016) demonstrated that perceived knowledge can have a significant impact on health behaviors, such as the

willingness to undergo elective medical interventions. With regard to breast enlargement, female university students are an important research demographic because they are frequently in the 18–30 age range that is most influenced by peer perceptions, media portrayals of body image, and societal beauty standards (Grogan, 2016). Additionally, this population is increasingly exposed to online marketing of cosmetic procedures, sometimes without proper regulation or balanced health information (Miller et al., 2019).

According to Brown (2017), young women may undervalue the medical risks associated with cosmetic procedures in favor of the alleged aesthetic benefits over any potential drawbacks. For example, despite knowing some risks, women who were exposed to more media ideals were more likely to consider cosmetic surgery, according to a study by Henderson-King and Henderson-King (2015). Breast enlargement and other body modification procedures have become more popular in Nigeria due to shifting cultural views of beauty, which have been influenced in part by Western media and celebrity culture (Oluwatosin & Adesoye, 2015). However, there are still few empirical studies evaluating female university students' perceived knowledge of health implications, which leaves a knowledge gap that this study aims to fill. From a public health perspective, people who rely on false information from unreliable internet sources or anecdotal experiences from peers may make dangerous decisions due to inadequate or erroneous perceived knowledge about breast enlargement (Alharethy, 2016). Susceptibility to such influences can be increased in university settings, where students frequently deal with identity formation and self-image issues. .

Notwithstanding the alleged aesthetic advantages, breast enlargement has both immediate and long-term health consequences that could have a substantial impact on

a woman's physical and mental health. Post-operative pain, infection, hematoma, scarring, and transient alterations in nipple sensitivity are examples of short-term complications (Brown et al., 2019). More serious risks include implant rupture or leakage, which may require additional surgical procedures, and capsular contracture, a condition in which scar tissue forms tightly around the implant, causing breast hardness and pain (de Boer et al., 2020). Additionally, research has shown a link between breast implants and BIA-ALCL, a rare but dangerous immune system cancer (Clemens et al., 2022; U.S. Food and Drug Administration, 2023). Psychosocially, some women report feeling better about themselves, but others may experience increased anxiety, body dysmorphia, or regret if the results of surgery do not meet their expectations (Tijunelis et al., 2018; Berer et al., 2022). Long-term stress is also exacerbated by the procedure's cost and the possibility of needing replacement surgeries every ten to fifteen years, especially for young women with low incomes (ASPS, 2023). Additionally, there are risks of hormonal imbalance, allergic reactions, and tissue necrosis associated with non-surgical breast enlargement techniques like hormone injections, topical creams, or unregulated fillers (Almeida et al., 2021).

Globalization, celebrity influence, and increased exposure to Western beauty standards through social media are driving the rapid growth of the cosmetic body enhancement trend in Nigeria, which includes breast enlargement (Ogunleye et al., 2021). However, university students are still not well-informed about the possible health consequences, and many of them might rely more on information from their peers than on medical advice. According to a study by Adeyemi and Ogundipe (2022) while 68% of female undergraduate students in Lagos were aware of breast enlargement procedures, less than 30% were able to accurately identify serious health risks like implant rupture or Breast Implant-Associated Anaplastic Large Cell

Lymphoma (BIA-ALCL). The need for focused health education interventions in academic settings is highlighted by this discrepancy between awareness and accurate knowledge.

Societal beauty standards have long been recognized as powerful determinants of how women perceive and evaluate their bodies. According to Grabe, Ward, and Hyde (2018), bigger breasts are frequently promoted as a key indicator of femininity, beauty, and social desirability. Social networking sites, peer pressure, and the media all contribute to the reinforcement of these values among female students by increasing their exposure to limited standards of attractiveness (Perloff, 2018). According to Tiggemann and Slater (2019), this kind of exposure encourages body dissatisfaction and appearance-related worries, which in turn drives young women to look for goods or treatments that claim to improve their physical attractiveness. These social forces frequently influence students' knowledge of breast enlargement products. These breast enlargement products rather than coming from reputable medical sources, most information regarding enhancement products which might range from creams, pills, and herbal mixes to mechanical devices is spread through peer recommendations and advertising (Swami et al., 2019). Because of this setting, female students report being highly knowledgeable of these products, but they have little precise understanding about their efficacy and any health hazards (Mellor, Ingram, & Mutrie, 2019). Marketing narratives tend to minimize negative impacts while emphasizing perceived advantages like attractiveness and confidence (Frederick et al., 2017).

Additionally, peer groups in universities tend to support the normalizing of breast enlargement procedures by frequently depicting them as safe and essential for adhering to dominant beauty standards (Diedrichs & Halliwell, 2015). Students' knowledge is frequently influenced by cultural beauty standards rather than scientific

data in settings with low health literacy and lax regulation of cosmetics. This emphasizes how crucial health education and media literacy are in combating false information and irrational expectations (Levine & Murnen, 2019).

Phytoestrogens (plant-derived substances that imitate estrogen) or synthetic hormones are frequently found in many non-surgical breast augmentation treatments sold to young women, including tablets, lotions, and herbal supplements. Long-term exposure to uncontrolled hormones can interfere with regular endocrine function and raise the risk of diseases linked to estrogen, such as breast cancer (Hilakivi-Clarke et al., 2019). Although there is little direct evidence connecting these items to breast cancer in female students, studies have shown that using estrogenic chemicals excessively or inappropriately can cause aberrant cell proliferation in breast tissue (Yager & Davidson, 2018). Although they are less popular among students in low-resource environments, cosmetic breast implants have known hazards as well. Breast implant-associated anaplastic large cell lymphoma (BIA-ALCL), a rare immune system disease that grows around implants, has been linked to specific implants (U.S. Food and Drug Administration, 2020). The biggest problem for students is that a lot of breast enlargement products are not clinically tested, inadequately labeled, and uncontrolled, which increases the possibility of contamination, hazardous substances, and unknown dosages. When combined with low health literacy and a dependence on information from peers or social media, female students may unintentionally put themselves at risk for developing cancer in the long run.

Topical products such as creams and oils are often produced and distributed in poorly regulated environments, making them susceptible to microbial contamination. Such products can allow germs to enter the skin when applied, particularly to places with abrasions or allergic responses. This can result in localized infections including

cellulitis, abscesses, or dermatitis (Akram, Zafar, & Saeed, 2020). In a similar vein, if not adequately sanitized, mechanical or suction devices sold for breast expansion may store bacteria, leading to recurring soft tissue infections and skin discomfort. More invasive methods, such as injections of silicone or fillers, which are sometimes sought from unlicensed practitioners, also carry a high risk of bacterial contamination due to the use of non-sterile equipment and environments. These procedures can result in serious side effects such as sepsis, mastitis, and the development of an abscess (Elswick, Harshbarger, & Sinkler, 2018). Additionally, there is a far greater chance of coming into contact with tainted or fake cosmetics in areas where regulation and quality control of cosmetics are weak (World Health Organization, 2018).

The university setting plays a critical role in shaping students' knowledge, attitudes, and decisions about cosmetic procedures. The perceived knowledge of health implications influences whether individuals make informed choices or fall victim to misinformation, risky procedures, and unqualified practitioners. Therefore, this study seeks to explore the perceived knowledge of the health implications of breast enlargement among female students in the university, with the aim of bridging the knowledge gap, enhancing informed decision-making, and promoting safer health practices.

Statement of the Problem

Breast enlargement and other societal beauty standards have a big impact on how women view their bodies because they frequently present larger breasts as a symbol of femininity, beauty, and social acceptance. Among female students, their interest in breast enhancement products, such as creams, pills, herbal mixes, suction devices, and injections is heightened by societal beauty standards, peer pressure and social media exposure, which reinforces these ideals. Although there is a lot of information on

breast enlargement products, a large portion of this knowledge is influenced more by beauty standards that have been set in the society, peer recommendations and media marketing than by fact-based health information (Swami et al., 2019). This raises concerns and questions about the knowledge and how well informed female students of the University of Benin are the health implication of breast enlargement.

The stigma associated with having smaller breasts have influenced the cultural beauty standards that have led to breast enlargement. Nevertheless, studies have looked at how these characteristics especially affect female students' knowledge of breast enhancement products in Nigeria without being well informed and having proper knowledge. Moreover, although health consequences like bacterial infections from tainted or dangerous cosmetics (Akram, Zafar, & Saeed, 2020) and breast cancer from uncontrolled hormones (Hilakivi-Clarke, 2019) have been studied, there is a gap in the level of perceived knowledge of the health implication of breast enlargement among female students in the University of Benin, hence the need for this study.

Research questions

To guide the study, the following questions were raised;

1. Do societal beauty standards influence knowledge of breast enlargement products among female students in the University of Benin?
2. Does peer influence have an impact on knowledge about breast enlargement products among female students in the University of Benin?
3. Will breast cancer be a health implication of breast enlargement products among female students in the University of Benin?
4. Will bacteria infection be a health implication of breast enlargement products among female students in the University of Benin?

Purpose of the Study

This study aims to examine the perceived knowledge of the health implications of breast enlargement among female students in the University of Benin. In particular, this research seeks to:

1. ascertain if societal beauty standards influence knowledge of breast enlargement products among female students in the University of Benin.
2. examine the impact of peer influence on knowledge about breast enlargement products among female students in the University of Benin.
3. investigate if breast cancer will be a health implication of breast enlargement products among female students in the University of Benin.
4. investigate if bacteria infection will be a health implication of breast enlargement products among female students in the University of Benin.

Significance of the study

This study on the perceived knowledge of the health implications of breast enlargement among female students in the university of Benin holds relevance to female students, school management, healthcare providers, federal ministry of health, policy makers and researchers on the increasing trend with potential physical, psychological, and social health consequences. This study is significant for the following reasons;

For female students, the findings will enhance awareness of the possible short-term and long-term health risks associated with breast enlargement procedures, whether surgical or non-surgical. This knowledge can empower them to make informed decisions based on evidence rather than societal pressure, peer influence, or misleading beauty industry advertisements. Informed female students are better

equipped to critically evaluate cosmetic trends and avoid practices that may jeopardize their health, well-being, or future reproductive functions.

The results of this study will guide the school management in integrating targeted health education campaigns into student welfare programs. By understanding students' current level of knowledge and misconceptions about breast enlargement, school authorities can collaborate with campus health services to develop workshops, counseling sessions, and awareness materials that discourage risky cosmetic procedures and promote body positivity among students.

For healthcare providers, especially those working in university health centers and local clinics, the study will aim to provide insights into the prevailing perceptions and misinformation among young women. This will help in designing patient-centered educational interventions, early counseling strategies, and preventive measures to address misconceptions before students opt for potentially harmful procedures.

At the national level, the Federal Ministry of Health can use the study's findings to inform public health policies and regulatory frameworks for cosmetic surgeries and non-surgical breast enhancement products. It can also serve as evidence for launching awareness campaigns targeted at youth, ensuring that safety standards are upheld in cosmetic practices while protecting young women from exploitation by unqualified practitioners.

Policy makers can leverage this research to review and strengthen existing policies on cosmetic enhancement practices in Nigeria. The study will highlight the need for stricter regulation of cosmetic procedure advertisements, certification of practitioners, and public sensitization to curb unsafe and unethical practices. Furthermore, the insights could influence laws that promote consumer protection and transparency in the cosmetic industry.

Lastly, this study will add to the limited body of empirical literature on breast enlargement knowledge among young women in Nigerian universities. By highlighting current knowledge gaps, misconceptions, and the factors influencing perceptions, it creates a basis for future research exploring related areas such as psychological motivations, media influence, and the socio-cultural dimensions of cosmetic surgery. It also offers a framework for comparative studies across different universities and demographic groups.

Scope / Delimitation of the study

The focus of the research work is perceived knowledge of the health implication of breast enlargement among female students in the university of Benin. And the scope of this study therefore cover key factors such as perceived knowledge of female students towards breast enlargement, societal beauty standards, media influence, and peer group influence as they relate to health implication of breast enlargement. The study is delimited to undergraduate female students in the university of Benin.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter will be discussed under the following subheadings:

- Conceptual Review
- Evolution of Breast Enlargement in Developed and Developing Countries
- Motivations for Breast Enlargement
- Perceived Knowledge of Breast Enlargement among Women
- Influence of Societal Beauty Standards on Breast Enlargement Products
- Peer Influence on Knowledge of Breast Enlargement Products
- Breast Cancer as a Health Implication of Breast Enlargement Products
- Bacteria Infection as a Health Implication of Breast Enlargement Products
- Summary of Literature Reviewed

Conceptual Review

Concept of Breast Enlargement Products

Breast enlargement products are a wide range of medical and cosmetic procedures intended to make the breasts bigger, fuller, or firmer. They are promoted as ways to improve women's perceptions of their bodies, increase their self-worth, and fit in with cultural ideals of beauty that frequently glorify larger breasts. These goods cover everything from invasive medical procedures like injections and implants to non-invasive topical therapies and dietary supplements. Due to peer pressure, media representations, and social pressures, their use has increased widely, especially among young women and female students. According to Okafor and Nwankwo (2020), breast enlargement products are commercially accessible substances or methods intended to change the size or contour of the breast without treating underlying medical issues. Some use injectable fillers or medical-grade implants, while others are marketed as

herbal cures and cosmetic cosmetics that may be purchased over-the-counter. These products' fundamental promise is to provide women a better physical look that conforms to prevailing societal ideas of femininity and beauty (Swami, 2019).

Types of Breast Enlargement Products

Topical Creams, Oils, and Lotions; These are among the most common products used by students due to their affordability and easy accessibility. They often contain plant-based phytoestrogens, collagen, or hormones that claim to stimulate breast tissue growth (Ali & Othman, 2019). However, scientific evidence supporting their effectiveness remains weak, and many are produced without regulatory approval, raising concerns about their safety and contamination risks.

Oral Supplements and Pills; Breast enhancement pills often contain herbal ingredients such as fenugreek, fennel, or pueraria mirifica, believed to mimic estrogenic activity. While manufacturers advertise them as natural alternatives to surgery, studies indicate that these supplements may cause hormonal imbalances and liver toxicity when consumed in high doses (Sharma, Patel, & Singh, 2018).

Hormonal Injections and Injectable Fillers; In some contexts, young women seek injectable substances such as hyaluronic acid or even unregulated silicone-based fillers to enlarge breast size. These procedures are often carried out in informal settings without medical supervision, thereby increasing the risk of infection, tissue necrosis, and systemic health complications (Elswick, Harshbarger, & Rinker, 2018).

Breast Implants (Surgical Augmentation); Breast augmentation with silicone or saline implants is the most permanent and medically recognized method of enlargement. It remains, however, an invasive procedure that requires surgical expertise. While it is associated with aesthetic satisfaction, risks include implant rupture, capsular contracture, biofilm infections, and even long-term associations with

breast implant-associated anaplastic large-cell lymphoma (BIA-ALCL) (Adams et al., 2017).

Scope of Breast Enlargement

Breast enlargement is a medical and cosmetic procedure used to increase the size, change the shape, or improve the fullness of the breasts. It is also known as breast augmentation or augmentation mammoplasty. Usually, this is accomplished by surgically inserting implants (like silicone gel or saline-filled prostheses) or, in certain situations, by autologous fat transfer, which uses fat from another area of the patient's body (American Society of Plastic Surgeons ASPS, 2023). The operation is one of the most popular cosmetic procedures in the world, and young adult women in particular are in high demand for it as they try to change their physical appearance to fit socially, culturally, or personally defined standards of beauty (de Boer et al., 2021). Clinically, breast enlargement can be divided into two types: reconstructive augmentation, which is done after a mastectomy, trauma, or congenital breast deformities, and cosmetic breast augmentation, which is done primarily for aesthetic enhancement (Nguyen et al., 2019). Dissatisfaction with breast size or shape, asymmetry correction, or the desire to enhance one's body image and self-esteem are common reasons for undergoing cosmetic procedures (Swami et al., 2022).

In addition to surgical procedures, non-surgical and unregulated techniques like injectable fillers, herbal creams, hormonal pills, and mechanical devices marketed for breast enhancement are also included in the scope of breast enlargement. Many of these substitutes lack scientific validation and may present serious health risks, such as hormonal imbalances, skin irritation, infections, and, in certain situations, systemic toxicity, despite the fact that they are frequently marketed as safer and less expensive options (Onah, 2021).

Breast augmentation has steadily gained popularity throughout the world. According to the International Society of Aesthetic Plastic Surgery (ISAPS, 2022), millions of these procedures are carried out each year, with demand being highest in the US, Brazil, and some regions of Asia. However, media influence, the globalization of beauty standards, and the growing accessibility of cosmetic services are driving interest in developing nations like Nigeria (Onah et al., 2021). This trend raises public health concerns because it increases the risk of complications like capsular contracture, implant rupture, chronic pain, and even systemic illness, especially when procedures are carried out by unqualified practitioners or in unregulated environments (Sharma et al., 2012). Within a university student body, the subject's reach is substantial. When it comes to body modification, including breast enlargement, female students, especially those in late adolescence and early adulthood, are at a critical developmental stage where body image issues, peer pressure, and social media exposure can have a significant impact (Perkins et al., 2022). This group is susceptible to making risky decisions in the absence of sufficient medical information, so it is critical to understand how well-informed they believe they are about the health consequences.

Global and Local Trends in Breast Enlargement Practices

Breast enlargement has remained one of the most popular and visible cosmetic procedures in the world for the past 20 years. According to reports from professional societies and the literature on aesthetic surgery, breast augmentation whether through autologous fat transfer or implants continues to make up a significant portion of elective plastic surgery volume in many nations. The procedure is especially relevant for university age women and young professionals due to the fact that the majority of patients fall into the late-adolescent to early adult age range, which is where the

majority of demand is concentrated among younger adults (American Society of Plastic Surgeons , 2023).

Instead of just expanding, the global market has seen a number of significant changes in recent years. First, there is a noticeable shift toward results that look more natural: both patients and surgeons are favoring small volumetric breast augmentations or hybrid techniques that enhance contour and feel by combining implants and fat grafting. The increasing body of research on fat-transfer augmentation and hybrid techniques, which are marketed as providing a softer, more natural aesthetic while avoiding some implant-related disadvantages, reflects this preference (Nguyen & Carey, 2017; Biazus et al., 2020). Secondly, because they offer incremental results and shorter recovery times, non-surgical alternatives and minimally invasive adjuncts like tissue expansion systems, platelet-rich plasma, and temporary fillers have gained more attention in the market. While many potential patients find these options appealing, clinical reviews warn that safety evidence is still developing and that these options' effects are frequently transient (Tijoe et al., 2021).

The increased focus on long-term safety and complication surveillance is another significant worldwide trend. Clinicians and regulators are focusing on follow-up, better implant registries, and informed consent procedures in response to reports of implant related issues, such as capsular contracture, silent silicone implant rupture, and the more recently identified breast implant associated anaplastic large-cell lymphoma (BIA-ALCL) (Clemens et al., 2022). Simultaneously, the desire to avoid repeat surgeries, concerns about implant longevity, or shifting aesthetic preferences have all contributed to an increase in implant removal or revision procedures in some countries (ASPS, 2023). These changes demonstrate that although the desire for improvement endures, patients' methods for balancing risks and benefits are evolving.

The practice of aesthetics was also significantly but intricately impacted by the COVID-19 pandemic. Some patient desires (such as worries about facial features and self-appearance on video calls) were altered by temporary shutdowns of elective surgery and an increase in video-mediated social interaction. As services resumed, there was reportedly a spike in interest in elective procedures in many settings. Demand was maintained into the early 2020s thanks to this rebound effect and increased social media visibility of cosmetic results (Perkins et al., 2022).

Looking at the local (Nigerian) context, trends are influenced by unique socio-cultural and regulatory factors, but they also resemble some global patterns. Due to increased exposure to global beauty standards through social media, celebrity culture, and private clinic marketing, cosmetic surgery, including breast enlargement, has become more common in Nigerian cities. Regional studies and clinic-level audits indicate an increase in demand among young urban women, who frequently comprise recent graduates and university students (Ogunleye et al., 2021; Oluwatosin & Adesoye, 2015). Nigeria does not, however, have comprehensive, national data on cosmetic procedures, in contrast to high-income nations that are creating formal surveillance systems and national implant registries. This disparity makes tracking long-term complication rates and accurately quantifying national trends challenging. Nigerian practice patterns vary widely. Although many procedures are carried out by certified plastic surgeons and accredited facilities, there are also alarmingly many unlicensed providers and unofficial settings where non-specialists or self-styled aesthetic practitioners provide augmentation services. This kind of variation raises the possibility of unfavorable results, particularly when patients opt for less expensive options without receiving sufficient risk counseling or aftercare (Onah et al., 2021; Ogunleye et al., 2021). Economic factors also come into play: women with limited

funds may seek out less expensive non-surgical options or have procedures done outside of licensed clinics, which exposes them to potentially harmful drugs and methods.

Locally, as elsewhere, social drivers are strong. The desire to fit in with perceived beauty standards, peer pressure, and the influence of influencers and celebrities are the main drivers of body modification decisions. However, research has demonstrated that although female undergraduates may have a comparatively high general awareness of cosmetic options, they frequently lack precise and in-depth knowledge of potential health complications (Adeyemi & Ogundipe, 2022; Okoro et al., 2020). This mismatch strong interest but little accurate knowledge makes people more susceptible to harmful behaviors and false information.

Evolution of Breast Enlargement in Developed and Developing Countries

Advances in medical technology, cultural ideals, and changing views of beauty in both developed and developing nations have all influenced the evolution of breast enlargement procedures. Breast enhancement's history dates back to the late 19th and early 20th centuries, when risky surgical techniques, like paraffin injections, were employed in both Europe and the US, frequently resulting in serious complications (Adeyemi, 2022). The invention of silicone breast implants in the 1960s marked a major advancement by the middle of the 20th century and transformed cosmetic surgery in developed nations like the US, UK, and some European nations (Maxwell & Gabriel, 2009). Western beauty standards, media influence, and the expansion of the cosmetic surgery sector were major forces behind these innovations.

In developed nations, breast enlargement has changed from being a luxury and expensive procedure reserved for celebrities and the rich to becoming a widely available cosmetic procedure for the average person. Further improvements in

surgical methods, implant materials, and safety procedures occurred in the 1980s and 1990s, making the procedures safer and yielding more consistent results (American Society of Plastic Surgeons, 2023). Although non-surgical techniques like injectable fillers and vacuum therapy have become more popular, surgical augmentation is still the best option because of its long-lasting effects. Public confidence in the process has grown as a result of regulatory oversight in these nations, such as that provided by the U.S. Food and Drug Administration (FDA), which has improved safety and efficacy (Cordeiro et al., 2020).

The development of breast enlargement has taken a distinct course in developing nations. Because of high costs, a lack of qualified surgeons, and societal attitudes that valued natural body shapes, cosmetic surgery including breast augmentation was initially uncommon. However, the demand for breast enhancement has increased dramatically in parts of Asia, Africa, and Latin America due to globalization, increased exposure to Western media, and the rise of social media influencers (Choudhary et al., 2019). Both domestic and foreign clients are drawn to nations like Brazil and Thailand, which have become important centers for reasonably priced and excellent breast augmentation services. Notwithstanding this expansion, issues like the spread of unlicensed clinics, the use of hazardous materials, and insufficient post-operative care still exist in many developing nations. For instance, the use of illegal injectable drugs like liquid silicone and hydrogel for breast enlargement has increased alarmingly in Africa. These procedures are frequently carried out by untrained professionals and can result in serious side effects like infections, fibrosis, and even death (Otene et al., 2021).

Developed nations have mostly shifted to safer, regulated, and technologically sophisticated breast enlargement procedures, while developing nations continue to

strike a balance between satisfying rising demand and maintaining safety regulations. The global evolution reflects not only medical advancements but also the interaction of economic factors, health policy frameworks, and cultural views of beauty (Swami et al., 2020).

Motivations for Breast Enlargement

Breast enlargement motivations are varied and frequently influenced by a confluence of socioeconomic, psychological, cultural, and personal factors. Women in various societies seek breast enlargement for a variety of reasons, many of which overlap, from reconstructive needs to aesthetic enhancement. The desire to improve one's self-esteem and body image is a major driving force behind breast enlargement. According to several studies, women may feel body dissatisfied and become interested in augmentation procedures if they believe their breasts are smaller or out of proportion to their body size (Swami et al., 2022). Many people view breast enlargement as a way to achieve the "ideal" feminine figure that conforms to the fashion industry, media, and popular culture's dominant standards of beauty (Cash & Smolak, 2021). Celebrity influence and social media platforms that glamorize fuller breasts as a sign of confidence and beauty frequently reinforce this idealization of a specific body shape.

Another powerful motivator is the need for reconstruction, especially for women who have had a mastectomy for breast cancer or who have had breast abnormalities as a result of congenital diseases like Poland syndrome. In these situations, breast enlargement is crucial to regaining physical appearance, body symmetry, and emotional stability rather than just being purely cosmetic (Alderman et al., 2018). Reconstruction using implants or autologous tissue transfer has been demonstrated to enhance social reintegration, quality of life, and psychological recovery for patients

who have had mastectomy (Nguyen et al., 2019). Psychological aspects are also very important. In order to deal with low self-esteem, feelings of inadequacy, or unpleasant past experiences related to their appearance, some women seek breast enlargement. Although long-term psychological effects vary and may depend on pre-existing mental health status, research indicates that breast augmentation can temporarily increase body satisfaction and self-confidence (Honigman et al., 2020).

Another significant factor is cultural influences, particularly in cultures where curvaceous bodies are praised as representations of femininity, fertility, and social desirability. While larger breasts are associated with views of maturity, wealth, and marital attractiveness in some African and Latin American societies, breast enlargement is frequently promoted as a lifestyle choice in Western contexts (Gómez & de la Cruz, 2021).

Workplace and financial incentives also play a role. Women may see breast enlargement as an investment in their career advancement in fields like modeling, entertainment, or hospitality where career prospects are strongly correlated with physical appearance (Menzel et al., 2018). This is especially noticeable in developing nations' urbanized areas, where exposure to international beauty trends is rising quickly. Finally, it is impossible to ignore the influence of partners and peers. Particularly in social circles where cosmetic procedures are accepted, women may have their breasts enlarged as a result of encouragement or subliminal pressure from romantic partners or peers (Sarwer et al., 2019).

Perceived Knowledge of Breast Enlargement among Women

According to Park et al. (2018), perceived knowledge is a person's self-assessed comprehension or awareness of a concept, process, or phenomenon; it may or may not correspond to their actual, factual knowledge. Women's beliefs, awareness, and

comprehension of the processes, related risks, advantages, and results of both surgical and non-surgical breast enhancement interventions are all included in their perceived knowledge in relation to breast enlargement. Personal experience, peer pressure, cultural views, media representations, and medical information can all influence this knowledge (Hurst et al., 2020). According to a number of studies, women's perceptions of their level of knowledge regarding breast enlargement differ greatly depending on the demographic and sociocultural setting. Though misconceptions are still common, awareness levels have increased in developed nations like the US and the UK due to easier access to health education, consultations for cosmetic surgery, and internet resources. Swami et al. (2019), for example, discovered that many women who thought about getting breast augmentation were aware of the cosmetic advantages but undervalued the risk of infection, implant rupture, or capsular contracture. Perceived knowledge in developing nations is typically shaped less by expert medical advice and more by unofficial sources like friends, social media influencers, and community narratives (Odonkor & Frimpong, 2021). This frequently results in a partial or skewed understanding where physical attractiveness is prioritized over potential health risks. For instance, a study conducted in Nigeria by Okonkwo et al. (2020) found that although many female students understood that breast enlargement was a way to boost their social appeal and self-esteem, few were aware of the long-term health risks, such as the possibility of implant-related cancers like Breast Implant-Associated Anaplastic Large Cell Lymphoma (BIA-ALCL).

Media representation and cultural norms also influence how people perceive information. By emphasizing "before-and-after" changes, media outlets frequently glamorize cosmetic surgery, which can result in an overestimation of the advantages and an underestimation of the risks (Anderson et al., 2018). In this way, there may be

a disconnect between perception and reality since women's perceived knowledge may be skewed toward the positive aspects. Moreover, perceived knowledge is influenced by socioeconomic status. While women from lower socioeconomic backgrounds tend to rely on anecdotal evidence, which leaves them vulnerable to misinformation, women from higher income backgrounds might have easier access to reliable health information and professional consultation (Martinez et al., 2021).

One of the most important factors influencing women's decisions about cosmetic enhancement is their understanding of the various breast enlargement procedures and the possible results. Procedures for breast enlargement can be broadly divided into two categories: surgical and non-surgical. Each has its own unique methods, risks, benefits, and recovery periods. Women's expectations, level of satisfaction, and willingness to move forward with such interventions are frequently influenced by their awareness of these differences (Swanson, 2020). Breast augmentation with implants continues to be the most widely used surgical technique worldwide. In order to improve breast volume and contour, silicone gel or saline-filled implants are usually inserted during this procedure (American Society of Plastic Surgeons ASPS, 2023). Understanding this method usually entails being aware of its high success rate, consistent size and shape enhancement, and long-lasting effects. However, women are more likely to approach the decision cautiously if they are aware of the potential complications, which include capsular contracture, implant rupture, and the need for revision surgery (Hidalgo & Weinstein, 2021).

Autologous fat transfer is an additional surgical option that entails injecting fat into the breasts after it has been extracted from other body parts via liposuction (Claro et al., 2020). Because it eliminates the need for foreign implants, this approach is thought to be more "natural." However, there are frequently unanswered questions

about its drawbacks, including erratic fat absorption rates and the possible requirement for several sessions to produce the desired effects. Women's preference for this method may be influenced by knowledge of its comparatively lower complication rates when compared to implants, especially if they are worried about having synthetic materials in their bodies (Losken et al., 2021).

However, especially in developing nations, non-surgical breast enhancement techniques like hormone-based treatments, vacuum therapy, and injectable fillers are being promoted more and more through the media and cosmetic clinics. Even though these treatments might seem less intrusive and more cost-effective, knowledgeable people are aware that the effects are typically transient and that there is a chance of infection, skin damage, or hormonal side effects (Patel et al., 2019). Another important factor is the level of recovery time knowledge. While non-surgical techniques enable a quicker return to daily routines, surgical techniques usually necessitate several weeks of limited activity. Women who are aware of this distinction frequently match their decisions to the demands of their jobs and lifestyles (Swanson, 2020). Access to trustworthy, fact-based information is still unequal throughout the world. Women's knowledge of the risks and advantages of procedures is improved in developed nations through digital resources, standardized informed consent processes, and structured preoperative consultations (ASPS, 2023). Conversely, in many developing nations, a lack of proper regulation of cosmetic procedures and a dependence on social media marketing lead to misunderstandings, inflated expectations, and an underestimation of possible complications (Abdulkareem et al., 2022).

Whether done surgically or non-surgically, breast enlargement has both immediate and long-term health consequences that women need to be aware of in order to make

wise decisions. Depending on the procedure selected, the patient's health, and the practitioner's level of expertise, these consequences can change. Preventing complications and promoting post-procedure well-being require adequate knowledge of these health risks (Collis et al., 2018).

Short-term risks associated with invasive surgery are frequently present in surgical breast enlargement procedures like augmentation mammoplasty. According to Spear et al. (2014), these include hematoma formation, postoperative pain, swelling, infection at the site of the incision, and negative anesthesia reactions. Patients may also have issues with wound healing, seroma accumulation, and transient changes in breast or nipple sensation (Jewell et al., 2012). Short-term risks for non-surgical procedures like fat grafting, vacuum therapy, or injectable fillers include bruising, allergic reactions, skin irritation, and localized inflammation (Singh & Losken, 2016). Medical emergencies and instant disfigurement can result from poorly executed procedures, particularly when carried out by untrained professionals.

More severe side effects like capsular contracture (the hardening of tissue surrounding the implant), implant rupture or leakage, implant displacement, and chronic pain can arise from surgical breast enlargement over time (Berry et al., 2010). Given that implants typically have a limited lifespan of 10 to 15 years, after which they may need to be replaced, studies have also revealed that repeated revision surgeries are common (Nguyen et al., 2011). Breast asymmetry, rippling, and long-lasting sensory changes are possible for certain people. Although there is currently no conclusive evidence linking implants to breast cancer, some implant types have been linked to breast implant-associated anaplastic large-cell lymphoma (BIA-ALCL), a rare type of cancer (Clemens & Horwitz, 2017).

Long-term health risks associated with non-surgical techniques include tissue

stretching, skin laxity, persistent skin changes, and, in certain situations, fat necrosis if fat transfer is employed (Choi et al., 2014). Furthermore, non-surgical procedures typically have short-term results that necessitate repeated treatments, which can raise the cumulative risk of complications.

Studies by Brown et al., (2017) show that while many women are aware that breast enlargement is a cosmetic option, their understanding of the medical, psychological, and social ramifications of this procedure is frequently limited or superficial. According to a study by Miller et al. (2019), for example, while 78% of women surveyed had heard of breast augmentation surgery, fewer than half were able to correctly identify the possible side effects, such as capsular contracture, implant rupture, or the need for revision surgery.

Peer pressure, media representations, and cultural standards of beauty frequently shape people's perceptions of knowledge in developing nations more so than evidence-based health information (Okeke & Adeyemi, 2020). According to a study conducted in Nigeria by Akinola et al. (2019), urban women were more likely to be exposed to online content and advertisements for breast enlargement, but their knowledge of the health consequences was still mainly restricted to aesthetic results. They showed little awareness of risks such as infection, scarring, or systemic effects of implant materials.

On the other hand, women typically have greater access to preoperative counseling and health literature in developed nations where breast enlargement procedures are more prevalent and regulated. For instance, Adams et al. (2016) found that 65% of American women having breast augmentation had gone to formal consultations that explained the different kinds of implants, surgical methods, and long-term care, which greatly enhanced their ability to make well-informed decisions. Even so, some women

continue to undervalue the impact on breastfeeding or the likelihood of requiring future corrective surgeries (Jewell et al., 2018).

Perceived knowledge is significantly influenced by socioeconomic status and educational attainment. More accurate knowledge of procedures and risks is correlated with higher educational attainment (Haas et al., 2013). On the other hand, women from lower-income backgrounds frequently turn to unofficial sources, like friends, unlicensed practitioners, or social media influencers, which can spread false information.

Influence of Societal Beauty Standards on Breast Enlargement Products

Societal beauty standards play a significant role in shaping women's decisions to undergo breast enlargement, as perceptions of attractiveness are often culturally constructed and reinforced through media, fashion, and celebrity influence. Larger, proportionate breasts are frequently depicted as markers of femininity, youth, and sexual desirability in many cultures, especially in the West (Swami, 2012). A limited definition of beauty is internalized as a result of the idealized image that is promoted by movies, ads, social media influencers, and beauty pageants. In order to boost their self-confidence and social acceptance, women who feel that their natural breasts do not meet these standards may become dissatisfied with their bodies and think about getting breast augmentation (Murnen & Smolak, 2019).

Globalization and the dissemination of Western beauty standards have also increased demand for breast enlargement procedures in developing nations. For example, the increasing popularity of social media sites like Instagram and TikTok in Nigeria and other African countries has exposed women to standards of beauty that are endorsed by celebrities, increasing the social acceptance of cosmetic surgery (Okoro et al., 2020). According to studies, women are starting to see cosmetic enhancement as a

need to stay competitive in social, romantic, and even professional settings, taking precedence over personal body satisfaction as a result of societal beauty pressures (Markey & Markey, 2014).

Furthermore, standards of beauty change in tandem with societal trends. While surgically enhanced appearances may dominate public perception in some eras, natural beauty may be celebrated in others. Breast enlargement has become commonplace in modern times due to the hyper-visibility of surgically enhanced celebrities and influencers. This has created a feedback loop in which the procedure is encouraged by societal ideals, which are then reinforced by the procedure (Jones & Hunter, 2016). Social and psychological effects can result from the influence of conventional beauty standards. The potentially detrimental effects of unrealistic beauty standards are reflected in the fact that while some women report improved body image and self-esteem following breast enlargement, others may experience persistent dissatisfaction or a persistent desire for additional changes (Sarwer et al., 2017). This suggests that the pressure from society to have a particular breast size or shape may contribute to cycles of body dissatisfaction among women in addition to increasing the demand for cosmetic procedures.

Research on the impact of social beauty standards on breast enlargement has repeatedly demonstrated that media representations and cultural norms have a big influence on women's decisions to have such operations done. For instance, a cross-cultural survey conducted by Swami et al. (2012) revealed a strong correlation between women's desire for breast augmentation and their internalization of societal beauty standards, specifically the "hourglass" figure that is marketed in Western media. According to their research, women's dissatisfaction with their natural breast size and interest in breast augmentation increased when they were exposed to fashion

magazines, celebrity culture, and advertisements for cosmetic surgery.

In a study involving American women, Markey and Markey (2010) found that women who expressed a greater willingness to have their breasts enlarged were more likely to report higher levels of conformity to sociocultural beauty standards. According to the findings, women are under pressure to seek surgical enhancement because of societal messages that associate having larger breasts with being more attractive and feminine. Okonkwo and Eze (2020) investigated how beauty standards influenced women in Lagos's decisions to have cosmetic surgery in Nigeria. Their research showed that urban social networks and Westernized media have influenced a change in the standards of beauty, with bigger and fuller breasts being seen as markers of modernity, status, and desirability. Even among younger women, this perception has led to a rise in interest in breast enlargement procedures.

Furthermore, Brown et al. (2017) investigated the psychological predictors of interest in breast augmentation and discovered that social norms served as both direct and indirect motivators. Body dissatisfaction was a predictor of interest in augmentation surgery among women who felt that their bodies did not match the ideal of socially acceptable beauty.

Peer Influence on Knowledge of Breast Enlargement Products

Women's decisions to have their breasts enlarged are greatly influenced by their peers, especially in settings where ideals of body image are closely linked to social acceptance and perceived beauty. According to social comparison theory, people frequently assess themselves by comparing themselves to their peers, which can cause them to adopt behaviors meant to satisfy social norms (Festinger, 1954). When breast augmentation or enhancement is accepted or praised by their peers, women, particularly younger ones, may feel pressured to fit in because they see it as a way to

boost their self-esteem or gain approval from others (Swami et al., 2012).

Peer discussions, shared media, and mutual reinforcement can foster an atmosphere among college students and young adult women where choosing to enlarge one's breasts is framed as desirable or even necessary. Social media sites where peers display improved bodies amplify this influence, resulting in what Perloff (2018) refers to as "appearance-related social comparison." According to Sarwer et al. (2017), women in these social settings may come to believe that having larger or more symmetrical breasts is a sign of beauty, which may increase their interest in both non-surgical and surgical enlargement techniques.

Peer influence can occur directly, as in the form of overt encouragement, personal experience sharing, or clinic recommendations, or indirectly, as in the form of subliminal clues, such as compliments on people with breast augmentation or conversations about physical attractiveness. Peers act as channels for the spread of cosmetic enhancement trends in developing nations, where they may collide with aspirational ideals associated with Western beauty standards and celebrity culture (Okonkwo & Eze, 2010).

Peer pressure, though, can also have detrimental psychological effects. Peer pressure to have their breasts enlarged can cause body dissatisfaction, anxiety, or regret in women, especially if the results fall short of expectations or cause health issues (Grogan, 2016). This highlights the significance of health education and awareness campaigns that offer fair information about the risks and practical results of breast enlargement. Peer pressure can be both a source of motivation and a cause of post-procedure dissatisfaction.

Several studies have demonstrated how peer pressure shapes women's decisions about breast enlargement. Park, Calogero, Harwin, and DiRaddo (2014) claimed that peer

social comparison is a major factor in body image dissatisfaction, which can result in the desire for cosmetic procedures like breast enlargement. Young adult women who regularly compared their appearance to peers, both offline and on social media, were more likely to indicate plans to have breast augmentation, according to their survey-based study.

Similarly, women who had close friends who had had breast enlargement were much more receptive to the idea themselves, according to a cross-sectional study by Swami et al. (2012) that involved female undergraduate students in the United Kingdom. Acceptance of cosmetic surgery as a standard option grew as a result of peer discussions regarding body shape, attractiveness, and surgical results. This illustrates how peer pressure frequently works by normalizing and approving breast enlargement. Olamijulo and Adeyemi (2020) conducted a survey among female students in tertiary institutions in Lagos State, Nigeria, and found that interest in breast augmentation was significantly predicted by peer pressure, especially from social groups that place a high value on physical appearance. Participants said they felt pressured to "keep up" with friends who had cosmetic surgery. Peer modeling, or watching friends or acquaintances get breast enlargement, can lower perceived risks and raise perceived benefits of the procedure, according to research conducted in the United States by Henderson-King and Brooks (2009). According to their findings, exposure to peers who had augmentation through personal interaction had a greater impact than exposure through the media alone.

Breast Cancer as a Health Implication of Breast Enlargement Products

Breast enlargement products, marketed in forms such as creams, pills, herbal supplements, injectable agents, and implants, are widely promoted as tools for enhancing feminine beauty and social acceptance. Media representations that link

larger breasts to attractiveness, confidence, and higher social value, peer pressure, and cultural beauty standards all contribute to their popularity among young women. Concerns about its long-term health effects, especially the risk of breast cancer, remain despite their increasing use.

- **Hormonal and Estrogenic Mechanisms**

The hormonal content of breast enhancement products is one of the biggest issues. Phytoestrogens, or synthetic estrogenic substances, are included in many lotions and pills and are intended to promote the growth of breast tissue. Because it promotes mammary epithelial proliferation and raises the possibility of DNA abnormalities during cell replication, prolonged estrogen exposure is a known risk factor for breast cancer (Yager & Davidson, 2016). Estrogen and estrogen-like chemicals continue to play a key role in breast carcinogenesis, and prolonged exposure to these substances has been connected to the development and spread of tumors (Chlebowski et al., 2020). Therefore, using estrogenic breast augmentation products uncontrollably may make women more susceptible to breast cancer, particularly young women.

- **Herbal Supplements and Breast Cancer Risk**

Ingredients including soy extracts, fennel, fenugreek, and pueraria mirifica are frequently found in herbal breast augmentation pills. Concentrated herbal supplements include large levels of phytoestrogens that can upset hormonal balance, although moderate dietary amounts may have some protective effects. According to research, if taken unchecked, these supplements may mimic natural estrogen action and increase the risk of breast cancer (Martins et al., 2018). The carcinogenic danger of herbal breast products offered in uncontrolled marketplaces is further compounded by the presence of hidden synthetic estrogens and pollutants, according to a more recent

toxicological analysis (Balwierz et al., 2023). For female students, who frequently use these products without medical supervision, this presents concerns.

- **Cosmetic Chemicals and Endocrine Disruption**

In addition to herbal and hormonal formulations, endocrine-disrupting chemicals (EDCs) such parabens, phthalates, and phenols are frequently found in breast enlargement creams and oils. These substances, which are frequently employed as preservatives, have the ability to bind to estrogen receptors, interfere with regular hormone signaling, and encourage alterations in breast tissue that are linked to cancer (Darbre, 2017). Research has found parabens in samples of human breast tissue, indicating a long-term buildup from cosmetic use (Darbre et al., 2017). According to (Liu et al., 2019), parabens may have a role in carcinogenesis by inducing the growth of breast cancer cells in vitro . Furthermore, carcinogenic heavy metals like lead and cadmium have been discovered to be present in unregulated cosmetic goods that are sold in low and middle-income nations. These metals can promote oxidative stress and DNA damage in mammary cells (Obaji et al., 2021).

- **Breast Implants and Cancer-Related Risks**

Another important class of breast enlargement products are breast implants. Implants have been connected to a rare disease called breast implant associated anaplastic large-cell lymphoma (BIA-ALCL), despite the fact that the majority of extensive research shows no appreciable increase in the risk of classic breast cancer among women with implants (Noels et al., 2015). This uncommon T-cell lymphoma is thought to be caused by persistent inflammation and arises in the fibrous capsule enclosing textured implants (Brody et al., 2015). According to recent clinical findings, BIA-ALCL affects roughly 1 in 2,000–3,000 women who have textured implants; the incidence is expected to increase as more instances are documented worldwide (Hu et

al., 2020). Moreover, implants may interfere with breast cancer detection, as they obscure mammographic imaging and delay diagnosis, potentially leading to worse clinical outcomes (Cordeiro et al., 2020).

Weak regulatory control and the widespread distribution of unapproved or counterfeit products increase the risks connected with breast augmentation products in developing countries like Nigeria. A particularly vulnerable category is female university students, who are frequently subjected to peer pressure and cultural beauty standards. According to a study conducted in sub-Saharan Africa, a large number of young women purchase cosmetic enhancement goods from unofficial marketplaces, the majority of which lack adequate labeling, dose control, or clinical testing (Okonkwo et al., 2020). Users may unintentionally be exposed to high-risk chemicals that increase the risk of breast cancer since there is no regulatory enforcement.

Bacterial Infection as a Health Implication of Breast Enlargement Products

Breast enlargement products, ranging from topical creams and herbal supplements to injectable fillers and implants, have gained popularity among young women who seek to enhance their body image in alignment with societal beauty ideals.

- **Topical Products and Microbial Contamination**

Female students frequently utilize breast enhancement lotions, oils, and gels due to their affordability and accessibility. However, these products when manufactured or stored in unsanitary settings, herbal formulations and cosmetic creams are susceptible to microbial contamination. Unregulated cosmetic items have been found to contain contaminants such *Staphylococcus aureus*, *Pseudomonas aeruginosa*, and *Escherichia coli*, which can cause abscesses, localized skin infections, and even systemic sickness (Akram, Zafar, & Saeed, 2020). Such contamination can cause mastitis, cellulitis, or other soft tissue infections when applied to the breast area, particularly if the skin has

microabrasions. Students are more likely to buy tainted or expired cosmetics in low and middle-income nations like Nigeria due to inadequate regulation of the cosmetics industry. Creams may be repackaged by unofficial suppliers without being properly sterilized, increasing the possibility of microbiological growth (Obaji et al., 2021). Therefore, female students who use these products on a daily basis often without understanding safe cosmetic procedures may be more susceptible to bacterial infections.

- **Injectable Agents and Breast Infections**

A more intrusive method of breast expansion is represented by injectable fillers and uncontrolled hormonal injections. These products are frequently used in unofficial settings without the needles, tools, or injection site being properly sterilized. According to clinical research, there have been instances of contaminated injectable fillers introducing harmful germs that resulted in sepsis, necrotizing fasciitis, or abscesses (Elswick, Harshbarger, & Rinker, 2018). *Staphylococcus aureus*, *Streptococcus pyogenes*, and atypical mycobacteria (*Mycobacterium fortuitum* and *Mycobacterium chelonae*) are frequently linked to these infections. Short-term problems are not the only effects of these illnesses. In extreme situations, they may result in scarring, irreversible damage to the breast tissue, or systemic dissemination that necessitates hospitalization. Lack of post-procedure medical follow-up and dependence on unofficial peer counsel increase the hazards for students who may choose to have low-cost, unlicensed operations done.

- **Breast Implants and Post-Surgical Infections**

Although less popular among students than topical and injectable medicines, breast implants are susceptible to bacterial infection. Because they can develop biofilms on the implant surface, *Staphylococcus epidermidis* and *Propionibacterium acnes* are

commonly responsible for post-surgical infections after breast augmentation. Due to biofilm resistance, these infections are frequently challenging to treat with antibiotics and may require implant removal (Adams et al., 2017). The long-term effects of bacterial contamination are further highlighted by more recent research suggesting that bacterial biofilms may also contribute to the pathophysiology of breast implant-associated anaplastic large-cell lymphoma (BIA-ALCL) (Hu et al., 2020).

Summary of Literature Reviewed

Breast enlargement includes a wide range of operations, both non-surgical and surgical, performed for aesthetic or reconstructive reasons. Its scope encompasses aspects of public health, psychology, medicine, and culture. Although some people may benefit psychologically from it, the possible short- and long-term health risks highlight the significance of targeted health education, regulatory oversight, and well-informed decision-making. Breast enlargement techniques include less invasive options like hormonal supplements and mechanical suction devices, as well as permanent surgical options like implants and fat transfer. Although surgical techniques typically yield more substantial and long-lasting outcomes, they also come with greater financial and health risks. Despite being more widely available, non-surgical techniques usually only offer slight enhancements and lack strong scientific proof of their efficacy and safety. Making well-informed decisions requires accurate knowledge of the risks and benefits of these procedures, particularly for female university students who may be swayed by beauty standards and social pressures.

Reasons behind breast enlargement are complex and frequently represent a combination of psychological demands, social conventions, and individual goals. Better patient education, informed consent procedures, and the creation of interventions that address the psychosocial factors influencing decisions about

cosmetic surgery are all made possible by an understanding of these motivations, which is essential for legislators and healthcare professionals. In the end, making an informed choice about breast enlargement necessitates thorough understanding of the various procedures that are available, their potential drawbacks, and their realistic results. Research continuously demonstrates that women who are well-informed are more likely to avoid risky, unregulated enhancement practices, have reasonable expectations, and experience greater levels of satisfaction.

CHAPTER THREE

METHOD OF THE STUDY

The methodology that was used in carrying out this study, the perceived knowledge of the health implication of breast enlargement among female students in the University of Benin, is presented in this chapter. This is arranged under the subsections:

- 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

The descriptive survey design was adopted for this study. According to Singh (2023), the descriptive survey design is a methodological approach that seeks to depict the characteristics of a phenomenon or subject under investigation. In scientific inquiry, it serves as a foundational tool for researchers aiming to observe, record, and analyze the intricate details of a particular topic. This method provides a rich and detailed account that aids in understanding, categorizing, and interpreting the subject matter. This design was considered appropriate for this study as it enables the researcher to collect data from the female students in the University of Benin on their perceived knowledge of the health implication of breast enlargement 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

The sample for this study was two hundred and ninety-seven (297) female students which is the sum of 5% of the selected faculties. The multistage sampling was used to select respondents for the study. Firstly, the simple random sampling technique was used to select 8 faculties out of the 15 faculties in the University of Benin. A second sampling technique known as the systematic sampling was used to select the departments upon which the instrument will be administered and then the purposive sampling was used to select the respondents for the study.

Table 1: Sample Distribution of Respondents

S/N	Faculty	Population	Sample Size
1	Agricultural Sciences	799	40
2	Veterinary Medicine	69	3
3	Social Sciences	1734	87
4	Management Sciences	1813	91
5	Pharmacy	536	27
6	Law	611	31
7	Dentistry	47	2
8	Environmental Sciences	329	16
TOTAL	7	7052	297

Research Instrument

The instrument that was used in carrying out this study, was a self structured questionnaire. This questionnaire was structured into two sections, section A and B. Section A contained questions that requires the respondents demographic data, while section B contained items drawn from the research questions to obtain responses relating to the perceived knowledge of the health implication of breast enlargement among female students in the University of Benin.

Validity of the Instrument

In ensuring the validity of the instrument to be used for this study, the face and content validity was used to establish the validity of the instrument by giving the instrument to the project supervisor and two other experts in the Department of Health, Safety and Environmental Education. Their corrections and suggestions were then used in preparing the final draft of the instrument.

Reliability of the Instrument

To ensure the reliability of the instrument, this was established by using the test re-test method of estimating reliability. This involved giving copies of the instrument to 20 female students in Benson Idahosa University which was outside the population selected for the study. After a time lapse of two weeks, the same instrument was re-administered to the same respondents. Data generated from the two administrations was then subjected to Cronbach's alpha.

Method of Data Administration

The instrument was administered directly to the respondents by the researcher with the help of trained research assistants. The researcher and the research assistants visited the faculties selected for the study 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 to explain any grey areas to the respondents.

Method of Data Analysis

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

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

This chapter presents the results, analysis and interpretation of the data obtained from the participants in answer to the research questions that guided the study. The 297 respondents, who were chosen from the female students at the University of Benin in Edo State, were given a questionnaire consisting of twenty (20) items. The study was guided by five (4) research questions. The following tables provide a detailed presentation and analysis of the respondents' data.

Question 1: Do societal beauty standards influence knowledge of breast enlargement products among female students in the University of Benin?

Table 1: Respondents view on if societal beauty standards influence knowledge of breast enlargement products among them

S/N	ITEMS	MEAN	S.D	DECISION
1	Societal pressure to meet beauty standards has made me more curious about breast enlargement products	2.99	0.93	AGREED
2	Content (adverts, discussions, media) linking beauty standards with breast enlargement products has increased my interest about breast enlargement	3.12	0.88	AGREED
3	In order to look appealing to boys, the shape and size of my breast has affected my knowledge of breast enlargement products.	2.96	0.97	AGREED
4	I seek information on breast enlargement products on media platforms to keep up with trendy beauty standards	3.08	0.90	AGREED
5	Conforming to beauty ideals has aided my knowledge regarding breast enlargement options.	2.85	0.92	AGREED

Scale: Mean > 2.5 = Agree

Mean < 2.5 = Disagree

From the table above, the mean values (ranging between 2.76 and 3.12) indicate that most respondents agree that societal beauty standards influences their knowledge and curiosity about breast enlargement products. The standard deviations (0.88–0.97)

show moderate variation in responses, meaning there is some difference in how strongly individuals perceive these influences.

Therefore, from table 1 above it can be concluded that societal beauty standards do influence the knowledge of breast enlargement products among the respondents.

Question 2: Does peer influence have an impact on knowledge about breast enlargement products among female students in the University of Benin?

Table 2: Respondents view on if peer influence have an impact on knowledge about breast enlargement products among them

S/N	ITEMS	MEAN	S.D	DECISION
6	Comparing myself with friends has contributed to my knowledge of breast enlargement products.	2.73	1.01	AGREED
7	Content (adverts, discussions, media) linking beauty standards with breast enlargement products has increased my interest about breast enlargement	3.14	0.85	AGREED
8	I know more about breast enlargement products when my peers openly talk about them.	2.81	0.91	AGREED
9	My decision to find out more about breast enlargement products was influenced by peers.	2.44	1.02	DISAGREED
10	Trying to keep up with my peers due to pressure encourages students to seek information about breast enlargement products.	2.34	1.04	DISAGREED

Scale: Mean > 2.5 = Agree
Mean < 2.5 = Disagree

Table 2 shows that the mean scores range from 2.54 to 3.14, indicating varying levels of agreement among respondents. Items 6–8 fall within the “Agreed” range, suggesting that comparing themselves with their friend, content linking beauty standards with breast enlargement, knowing more about breast enlargement products through peer discussions, and media exposure contribute positively to students’ perceived knowledge of breast enlargement products. In contrast, items 9 and 10 fall

below the midpoint (2.34 – 2.44), suggesting that direct peer pressure plays a relatively weaker role in influencing knowledge-seeking behavior.

The highest mean (3.14) was recorded for item 7, showing that media exposure and advertisements are the strongest influence on students’ knowledge of breast enlargement products. The lowest mean (2.34) was recorded for item 10, indicating that peer pressure or the need to “keep up” with others does not have an impact on knowledge about breast enlargement products.

The standard deviation values (0.85–1.04) suggest a moderate to high level of variation, meaning that responses were somewhat diverse some students felt strongly influenced, while others did not.

Therefore, from table 2 above it can be concluded that peer influence does have an an impact on knowledge about breast enlargement products among them.

Question 3: Will breast cancer be a health implication of breast enlargement products among female students in the University of Benin?

Table 3: Respondents view on will breast cancer be a health implication of breast enlargement products among female students in the University of Benin

S/N	ITEMS	MEAN	S.D	DECISION
11	Using unregulated breast enlargement creams, pills, or injections can be linked to breast cancer.	3.19	0.83	AGREED
12	Using breast enlargement products is an higher risk of developing breast cancer	3.10	0.83	AGREED
13	The possibility of breast cancer is a serious health implication of breast enlargement products	3.13	0.86	AGREED
14	The use of breast enlargement products without medical supervision can increase breast cancer risk.	3.26	0.80	AGREED
15	Unregulated breast enlargement products can contain harmful substances which can cause breast cancer	3.32	0.76	AGREED

Scale: Mean > 2.5 = Agree
Mean < 2.5 = Disagree

Table 3 depicts the respondents view on if breast cancer will be a health implication of breast enlargement products among female students in the University of Benin. The mean values range from 3.10 to 3.32, which all fall within the response category “Agreed.” This indicates that most respondents agree that breast enlargement products especially unregulated ones can have health implications such as breast cancer.

The highest mean (3.32) was recorded for the item “Unregulated breast enlargement products can contain harmful substances which can cause breast cancer.” This suggests that respondents are most aware of the risks associated with harmful chemical components in unapproved products. The lowest mean (3.10) was recorded for the item “Using breast enlargement products is a higher risk of developing breast cancer.” Although this is slightly lower, it still reflects general agreement that these products are perceived as potential cancer risk factors.

The standard deviation values (0.76 – 0.87) indicate a low to moderate spread of responses, implying that most students share a similar perception, with only minor variations in opinions. Therefore, from table 3 above it can be concluded that breast cancer will be a health implication of breast enlargement products among the respondents.

Question 4: Will bacteria infection be a health implication of breast enlargement products among female students in the University of Benin?

Table 4: Respondents view on will bacteria infection be a health implication of breast enlargement products among female students in the University of Benin

S/N	ITEMS	MEAN	S.D	DECISION
16	Breast enlargement products can expose me to bacterial infections.	3.11	0.84	AGREED
17	Sharing or reusing breast enlargement applicators (needles, pumps, creams) increases the risk of bacterial infection.	3.29	0.78	AGREED
18	Inadequate hygiene during the use of breast enlargement products can lead	3.36	0.73	AGREED

	to bacterial infections.			
19	Proper education on hygiene and safety could reduce bacterial infection risks from breast enlargement products.	3.23	0.81	AGREED
20	I am aware that unsafe breast enlargement practices may introduce bacteria into the body.	3.15	0.85	AGREED
<hr/> Scale: Mean > 2.5 = Agree Mean < 2.5 = Disagree				

Table 4 depicts the view on will breast cancer be a health implication of breast enlargement products among female students in the University of Benin. The mean values range between 3.11 and 3.36, all within the “Agreed” range, suggesting that most respondents believe bacterial infection is a likely health implication of using breast enlargement products, particularly when hygiene is neglected or tools are shared.

The highest mean (3.36) was for the statement “Inadequate hygiene during the use of breast enlargement products can lead to bacterial infections,” showing that respondents strongly agree that poor hygiene practices during use increase infection risk. The lowest mean (3.11) was for the item “Breast enlargement products can expose me to bacterial infections,” though still agreed upon indicating a general but slightly less intense perception of the infection threat.

Standard deviation values ranged from 0.73 to 0.85, indicating low variability among responses, meaning most respondents shared similar views. Therefore from table 4, it can be concluded that bacteria infection will be a health implication of breast enlargement among the respondents.

Discussion of Findings

Research Question One: Do societal beauty standards influence knowledge of breast enlargement products among female students in the University of Benin?

The findings of this study on the perceived knowledge of the health implication of breast enlargement among female students in the University of Benin revealed that beauty standards and societal influences strongly shape the perceived knowledge and interest of female students in breast enlargement products. Respondents generally agree that media advertisements, peer discussions, and societal expectations about body image play important roles in their awareness of such products. The highest-rated item (Mean = 3.12) indicates that media content and advertisements are powerful sources of exposure. This finding aligns with Hurst et. Al, (2020) showing that personal experience, peer pressure, cultural views, media representations, and medical information can all influence and encourage the desire for enhancement products to meet idealized standards. The results also show that social comparison and attraction motives influence knowledge of breast enlargement products (Mean = 2.96), implying that some students are influenced by how they believe others, especially male peers and how they perceive them. This is in agreement with studies by Odonkor & Frimpong (2021) whose findings show that perceptions are often influenced typically and shaped less by expert medical advice and more by unofficial sources like friends, social media influencers, and community narratives. The mean score for seeking information online (Mean = 3.08) reveals that digital platforms and social media are active learning sources for students regarding breast enlargement products.

Research Question Two: Does peer influence have an impact on knowledge about breast enlargement products among female students in the University of Benin?

Further findings from this study revealed that peer influence does have an impact on knowledge about breast enlargement products among them. Peer comparison (Mean = 2.73) and open discussions (Mean = 2.81) were found to influence awareness moderately. These findings indicate that female students learn about breast enlargement through social interaction, especially when peers discuss or compare beauty-related topics which is supported by Olamijulo and Adeyemi (2020) in their studies whose findings showed that interest in breast enlargement was significantly predicted by peer pressure, especially from social groups that place a high value on physical appearance. However, peer pressure itself (Means = 2.64 and 2.54 for items 9 and 10) appears to have a lower motivational effect. This suggests that while peers contribute to the spread of information, the decision to actively seek more knowledge is more personally driven than socially pressured.

Research Question Three: Will breast cancer be a health implication of breast enlargement products among female students in the University of Benin?

Further findings revealed that female students of the University of Benin generally perceive breast enlargement products as potential health risks, particularly in relation to breast cancer development. Respondents strongly agreed that unregulated creams, pills, and injections can expose users to harmful substances, especially when used without medical supervision. The high mean scores (above 3.10) across all items reflect that most students possess a reasonable level of awareness about the possible dangers associated with cosmetic enhancement products. This suggests that, despite the increasing social appeal of breast enlargement, students are conscious of the associated health implications, including the potential for cancerous effects due to toxic chemical ingredients, hormonal disruption, or misuse. These results align with

medical findings by Martins et al. (2018) that some unapproved breast enlargement products contain steroids, phytoestrogens, and synthetic hormones, which may interfere with the normal hormonal balance and increase the risk of breast tissue abnormalities or cancerous changes. This is further supported by Cordeiro et al. (2020) that implants may interfere with breast cancer detection, as they obscure mammographic imaging and delay diagnosis, potentially leading to worse clinical outcomes. Moreover, the item with the highest mean (3.32) underscores that respondents are particularly wary of unregulated or counterfeit products. This awareness could be attributed to ongoing health campaigns and online discussions warning against the use of uncertified breast enlargements products.

Research Question Four: Will bacteria infection be a health implication of breast enlargement products among female students in the University of Benin?

Findings from this study also revealed that the female students at the University of Benin recognize bacterial infection as a significant potential health implication of breast enlargement product use. The data indicate strong agreement that inadequate hygiene, sharing of applicators, and unsafe handling during product use increase the likelihood of infection. This is in agreement with studies Obaji et al. (2021) whose studies showed that creams may be repackaged by unofficial suppliers without being properly sterilized, increasing the possibility of microbiological growth .

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

This study was embarked upon to investigate the perceived knowledge of the health implication of breast enlargement among female students in the University of Benin. To guide this study, four (4) research questions were raised and answered. The purpose of the study was to ascertain if societal beauty standards influence knowledge of breast enlargement products, examine the impact of peer influence on knowledge about breast enlargement products, investigate if breast cancer will be a health implication of breast enlargement products, investigate if bacteria infection will be a health implication of breast enlargement products among female students in the University of Benin. Literature on perceived knowledge, influence of societal beauty standards, impact of peer influence and the health implications of breast enlargement products such as breast cancers and bacteria infections were reviewed for this study. The instrument that was used to collect responses from the study's respondents was a self-structured questionnaire and the survey research design was adopted for this study. The data collected was tabulated and analyzed properly.

Findings

- Beauty standards and societal influences shape female students' interest in breast enlargement products.
- Media advertisements and discussions increase students' knowledge of breast enlargement products.
- Social comparison and attraction motives influence students' knowledge.
- Students obtain most information about breast enlargement products from digital platforms and social media.
- Students are aware that some products can cause cancer or hormonal imbalance.

- Students recognize bacterial infection as a possible health implication.

Conclusion

The study concludes that beauty standards, societal influences, and media exposure play significant roles in shaping female students' knowledge and interest in breast enlargement products. Social comparison and attraction motives further contribute to this awareness, as students often evaluate themselves against societal ideals of beauty. Digital platforms and social media serve as the main sources of information, reinforcing both curiosity and awareness about such products. Despite these influences, most students demonstrate an understanding of the potential health risks associated with breast enlargement, particularly the risks of cancer, hormonal imbalance, and bacterial infection. Overall, while social and media factors drive interest, health consciousness among students remains relatively high.

Recommendations

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

- The university should organize regular health education programs to inform students about the risks associated with unregulated breast enlargement products.
- Students should be trained to critically evaluate media advertisements and online information about cosmetic enhancement products.
- Peer-led discussions can be used to promote body positivity and discourage unhealthy beauty practices among students.
- Health authorities should strengthen the regulation of cosmetic products and ensure that only certified and safe products are available in the market.
- Awareness campaigns should emphasize self-esteem and acceptance of natural body shapes to reduce pressure from societal beauty standards.

- The university can partner with medical experts to provide accurate information on the medical and health implications of using enhancement products.

Suggestion for Further Studies

- Psychological factors that influence students' interest in breast enlargement products.
- Long-term health effects of using unregulated breast enlargement products.
- The effectiveness of health education programs on reducing the use of unsafe body enlargement products.

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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 questionnaire is designed to examine the perceived knowledge of the health implication of breast enlargement among female students in the University of Benin. Please 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

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

Do societal beauty standards influence knowledge of breast enlargement products among female students in the University of Benin?

S/N	ITEM	SA	A	D	SD
1.	Societal pressure to meet beauty standards has made me more curious about breast enlargement products				
2.	Content (adverts, discussions, media) linking beauty standards with breast enlargement products has increased my interest about breast enlargement				
3.	In order to look appealing to boys, the shape and size of my breast has affected my knowledge of breast enlargement products.				
4.	I seek information on breast enlargement products on media platforms to keep up with trendy beauty standards				
5.	Conforming to beauty ideals has aided my knowledge regarding breast enlargement options.				

Does peer influence have an impact on knowledge about breast enlargement products among female students in the University of Benin?

S/N	ITEM	SA	A	D	SD
6.	Comparing myself with friends has contributed to my knowledge of breast enlargement products.				
7.	Content (adverts, discussions, media) linking beauty standards with breast enlargement products has increased my interest about breast enlargement				
8.	I know more about breast enlargement products when my peers openly talk about them.				
9.	My decision to find out more about breast enlargement products was influenced by peers.				
10.	Trying to keep up with my peers due to pressure encourages students to seek information about breast enlargement products.				

Will breast cancer be a health implication of breast enlargement products among female students in the University of Benin?

S/N	ITEM	SA	A	D	SD
11.	Using unregulated breast enlargement creams, pills, or injections can be linked to breast cancer.				
12.	Using breast enlargement products is an higher risk of developing breast cancer				
13.	The possibility of breast cancer is a serious health implication of breast enlargement products				
14.	The use of breast enlargement products without medical supervision can increase breast cancer risk.				
15.	Unregulated breast enlargement products can contain harmful substances which can cause breast cancer				

Will bacteria infection be a health implication of breast enlargement products among female students in the University of Benin?

S/N	ITEM	SA	A	D	SD
16.	Breast enlargement products can expose me to bacterial infections.				
17.	Sharing or reusing breast enlargement applicators (needles, pumps, creams) increases the risk of bacterial infection.				
18.	Inadequate hygiene during the use of breast enlargement products can lead to bacterial infections.				
19.	Proper education on hygiene and safety could reduce bacterial infection risks from breast enlargement products.				
20.	I am aware that unsafe breast enlargement practices may introduce bacteria into the body.				

Thank You