

DOI: <https://doi.org/10.24297/jssr.v18i.9337>

The effect and comfortability of panty girdle on West African (Ghanaian) nurses during working hours.

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Abstract

Female undergarments and shapewear has been of relevance to the culture and lifestyle of various generations in the past evolving from the use of metal corsets, whale bones, control-top pantyhose, and now the panty girdle. Shapewear has been a pivotal feature of the female outlook and fashion; thus forming an essential part of the everyday apparel of today's woman. Over the years shapewear has taken very different forms, some close to what could be described as torcher (causing physical pain and ill-health in women), with others being comfier as it fulfills its purpose of projecting the desired feminine stature. As such, this study was developed to examine the effect and comfortability of modern shapewear, particularly Panty girdles. A questionnaire was developed and delivered to a sample of 500 nurses in the city of Accra -Ghana (West Africa) to solicit data on the use of panty girdles. The findings of the study revealed that panty girdles were generally comfortable and presented no significant interruptions to work performance for Ghanaian nurses. Further, the study showed that panty girdles were effective in shaping the body of their users. However, the data reveals that there is a significant association between the type of panty girdle used and the levels of comfort experienced users. In the future, the four selected panty girdles will be experimented to show the scientific methods and to help back this survey.

Keywords: shapewear, panty girdle, corset, nurses, comfortability, discomfort.

Introduction

Every human has a right to choose so some people prefer to go in for loser panties whilst others prefer to go in for tighter ones but basically, panties made today are made in such a way that it fits everyone perfectly if only you purchase the right size and fabric component (Clovia, 2018). Panty girdles are one of the most significant groups of basic lingerie many women wear, every woman has a secret in her closet when it comes to undergarments and most of them are bras, panties, and girdles, girdles come in all shapes, sizes, and designs to suit everyone's taste. According to Shycart (2019), modern shapewear such as the panty girdle is usually made of nylon and lycra that force the body into shape and thins a few inches instantly. There is a wide range of designs for modern shapewear, this reflects the many reasons for which they are patronized. The reasons for wearing panty girdles differ as well as the various transitions panty girdles have been subjected to. Women at their best would want to show themselves in appealing shapes of outfits, particularly on special occasions. Thus, the panty girdle helps remove inches around the stomach, buttocks, and thighs to make the figure of wearers more prominent.

A panty girdle is an elasticated garment that camouflages the tummy or makes the waistline smaller, some of them have legs to cover the hip bone. There are different types of girdles that one can choose to match his or her outfit correctly without showing any seamlines (Puleston, 2017). Panty girdle comes in different forms, all of them control the waistline, and some control the buttocks whilst others are even padded at the buttocks. In any case, the garment can trim the tummy, smooth the curves, and give an appealing curve to the buttocks. Women find these garments very appealing these days because it's easy to use and it has minimal intrusion. In most cases, panty girdles look just like regular underwear (Suzanne, 2011).

In a study by Farrell-Beck (2020), a Girdle was defined as a "flexible, light-weight shaped corset, made partly or entirely of elastic, worn to confine the figure, especially through the hip line. From the Merriam-Webster's Collegiate Dictionary, a girdle is the close-fitting undergarment of a woman often boned and usually elasticized that stretches from the waist to under the hips. In 2019, a document titled "How Women's 'Shaping Underwear' Has Changed throughout History" by Carlton (2019) posted that the introduction of steel corsets, whale bones, and girdles have defined the chronicles of



shapewear. Panty girdles surfaced when a large number of women began to wear pants. Girdles initially, appealed to younger girls, but women of all ages gradually wore some sort of girdle until the girdle's functions were supplanted by control-top pantyhose for all but the most traditional women. Carlton (2019) mentioned that Shapewear had come a long way and contributed even to very significant moments in history. Farrell-Beck (2020) the US government asked women during WWI to avoid wearing corsets because they used so much precious steel. The women listened, and they released enough steel to build two ships.

In years gone by, Shapewear has not been just for date nights; housewives in the 1950s were warned not to take off their girdles when vacuuming. Victorian women wore corsets so much that doctors were concerned about their bodies being permanently harmed. And women also wore beach Shapewear. From ancient Mesopotamia until today, women use clothing to shape their bodies and it works perfectly for most of them. Ravon (2019) posted that one of the most popular types of shapewear is a girdle. He mentioned that in addition to the favorable changes in the appearance of the figure, the reasons and health benefits of wearing a girdle are innumerable. But he hinted at the point that wearing a girdle has many advantages for your health and mental well-being, some side effects can also arise if you wear your girdle 365 days a year. Again, Comfort alone did not suffice, beauty was also a necessity. Yoshino, et al., (2013) affirmed that women use girdles to control their body shape which takes effect from their abdomen to their waist other girdles extend to the hip, generally, it has been known that the girdle provides comfort to others but not to all.

However, as the use of the panty girdle has become a part of the everyday life of the modern woman, comfort has become a key consideration in the choice and design of such shapewear. However, women differ in taste and preference in their choice of underwear per the geographical location, lifestyle, and occupation within which they function; and this informs the type, form, texture, and style of panty girdles they use. Thus, the purpose of this article is to analyze the comfort and effect of these panty girdles on West African ladies Nurses(Ghanaian) during working hours by assessing the;

- the types of panty girdles commonly used by Nurses.
- the feeling of comfortability of panty girdles amongst Nurses
- the effectiveness of panty girdles in shaping the Body and its respective health benefits.

In the 21st century, there has been a large resurgence of shapewear being worn, especially with different fabrics and well-stitched seams, with good construction the modern girdle feels more comfortable to wear as compared to the previous century. In 1970, the girdle was generally supplanted by the wearing of pantyhose. Tights in the United Kingdom or Pantyhose in the USA replaced girdles for most women who have combined the use of panty girdle with the comfortable style of panty girdle, most of these women use these girdles as a way of holding up their stockings or pantyhose for some figure control. Those who also wanted figure control had the option of "control top" pantyhose, whereas the top section of the pantyhose had a higher proportion of elastane lycra to offer some figure control (Delory, 2003).

The Effect of Panty Girdle on Ghanaian Nurses.

One of the benefits of wearing girdles is that it gives women a feminine silhouette. And this is particularly important for nurses who like many other essential workers are required to be in uniforms for a greater part of the day. Unlike women in other professions who have the choice of selecting clothes that suit their various body shapes, and help them project desired parts of their bodies. A study conducted by Yoshino & Kokatsu (2012) shows that girdles made of highly extensible and reversible yarns presumably helped to reduce physiological stress and also facilitate smooth and easy movement for its users.

The comfortability of girdles is attributed to the variety of their functionalities, thus the functional properties of the fibers themselves and the utility that is exhibited when such girdles are worn. Of all the types of girdles, those that conform to changes in the body habitus attract particular attention (Yoshino & Kokatsu 2017) there are different undergarments used in shaping and controlling women's bodies but the most known one is the panty girdle because it helps to bring the good shape of every woman. When a woman first considers wearing a panty girdle, they think of the benefits such as smaller waist size, the elimination of unwanted muffin tops, or the evidence of the extra weight, the naturally comforting sensation, reducing anxiety, depression, and panic attacks. A supportive hug can heal emotions among women (Healthable, 2014).

Panty girdles that reach up the back just a little bit can provide lumbar support and may prevent back injuries. An undergarment that encourages good posture has the potential of reducing not only back injuries but headaches and migraines, pain from scoliosis, pressure on the knee and feet due to poor posture, and tension in the neck and shoulders. Also, modern panty girdles provide support for the abdomen. Sometimes girdles, in general, are recommended to men and women who are recovering from surgery because of these supportive qualities. Panty girdles by their very design have this beneficial feature as an embedded component of their utility. This support provided by panty girdles can also aid proper body maintenance and provide support for the bust.

Some primary areas addressed by body shaping lingerie (such as the girdle); are the bust, waist, hips, and thighs. All nurses irrespective of body size or shape are required to be in the prescribed uniforms. Thus, body-shaping lingerie comes in handy to enable them to present a good body outlook in their uniforms. With the right shaper, they are fortunate to have that hourglass figure that will go well with their uniforms or any other dress. All these can be achieved instantly without having to lose weight or see a cosmetic surgeon.

In addition to giving the health workers the desired body outlook within their uniforms, panty girdles offer the nurse many other benefits. Given the varying demands of the nursing job, which spans from sitting for long hours to carrying patients and driving them around in wheelchairs; the panty girdles further help improve posture and abdominal muscles due to their elastic nature which provides compression and encourages the health workers to stand with their back straighter and firmer. The support also alleviates pain, particularly in the lumbar area and the lower back. This also helps improve walking and sitting which reduces the strain on the back, especially for nurses who sit for extended periods. The prolonged use of girdles also helps strengthen the abdominal muscles so that the internal organs will naturally pull back into their normal position. And as a matter of fact, most women who wear girdles are encouraged to retain a healthy and active lifestyle.



Fig. A



Fig. B



Fig. C

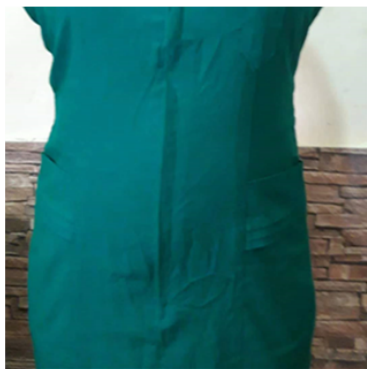


Fig. D



Fig. E



Fig. F

Figure 1. Sample of waist trainer (corset).

Figure A, B, D, and E shows how the design of Ghanaian nurse's uniforms look like, nurses with big tummy feel uncomfortable walking around, that's why most of them put on the girdle to camouflage their wrong figure and enhance the changes the girdle makes to their body. Figure A&B is a nurse who isn't in a panty girdle but in her uniform. She has two kids and her last born is four years, this tummy we see isn't someone who is 5 months pregnant or has given birth recently. Figure. C shows clearly the size of the respondent's tummy without the panty girdle and uniform, it's shown in Figure. F that the respondent's tummy has to reduce as compared to Fig. E, and this change is in existence because of the girdle she is wearing. In Figures D& E the respondent is putting on her uniform and beneath it is the panty girdle so we can see that her waistline has reduced completely which means that the PG plays an important role in Ghanaian nurses' life.

Research Methodology

This is an exploratory study conducted among Nurses registered with the Ghana Registered Nurses and Midwives Association (GRNMA). As of the time of this study, the GRNMA reported a total of approximately 5,573 recognized members (GRNMA, 2021). Thus using the generalized scientific table for sample size determination developed by

Krejcie & Morgan (1970), a minimum sample size of 361 was determined. However, to enrich the validity and reliability of the study results the sample size adopted for this study was a total of 500 respondents.

Questionnaires

Concerning data collection, a questionnaire was developed to reflect the stated research objectives. Thus, the questionnaire was divided into four distinct sections. The first part details the Demographic data of participants, the second section solicits data on the types of panty girdles commonly used by Respondents, the penultimate section captures data on the Comfortability of panty girdles amongst Nurses and the last section had questions related to the Effectiveness of panty girdles in shaping the body and its health benefits. The questions were succinct, clear, and unambiguous.

In designing the research questionnaire, various measurement scales were considered, some of the scales used include Likert scale questions, rating scale questions, Multiple Choice questions, and dichotomous questions. Many of the questions were based on the rating scale and Likert scaling as this proved to be most appropriate for the study. This is in line with the assertion (Sekaran & Bougie 2010) that; Likert scaling is one of the most frequently used numerical scales to measure attributes and behaviors in all forms of systematic research.

Data was collected using the survey method through self-administered questionnaires. The self-administered questionnaire was randomly delivered to participant Nurses at various Hospitals within the Greater Accra Region of Ghana. The questionnaires were administered to respondents between 22nd January 2021, and 17th of February 2021. In this period the researcher made a series of visits to various hospitals within the Greater Accra Region of Ghana.

Reliability and validity.

In quantitative research, Reliability and Validity address the issue of accuracy; i.e. accuracy of the measurement approach and whether they are addressing the purpose of the study (Joppe, 2000). Thus, Schindler & Cooper (2006) describes Pre-testing as a final step toward improving survey results. The researcher used student nurses in evaluating the suitability of questionnaires, and a pre-test was conducted on respondents (student nurses) who were not an element of this study. There were no major areas of concern that were noted or experienced, and the data received were reconciled with what was planned to collect.

Ethical considerations.

Ethics are the norms or standards of conduct that distinguish between right and wrong. They help to determine the difference between acceptable and unacceptable behavior. The study guarantees that all respondents who chose to participate in the study did so of their own free will. They have been fully informed regarding the procedures of the study and any potential risks. The study also protects the interest of participants and assures them of confidentiality and anonymity of any information provided.

Data analysis.

Data was collected through hand-delivered questionnaires and further imputed into SPSS version 20 for analysis. The demographic variables are summarized using descriptive summary measures: expressed as mean (standard deviation) for continuous variables, and percentages for categorical variables. A Chi-squared test of association was carried out to test for relationships between the types of panty girdles commonly used and the level of comfortability. The statistical tests were performed at the 0.05 level of significance. P-values were reported to three decimal places with values less than 0.001 being reported as, 0.001. P values of less than 0.05 were considered statistically significant.

Results and Analysis

A total of 500 questionnaires were distributed to the respondents and a total of 500 questionnaires were received. Therefore, the response rate was 100%. However, after reviewing the data, it was realized that not all the questionnaires distributed were fully completed. Nonetheless, none of the responses received were disqualified as each questionnaire contained sufficient information to enable analysis.

Demographic Data

Table 1 summarizes the demographic information of the study participants. The majority of the Nurses accessed for this study were General Nurses (45.1%), Community Health Nurses (29.7%), Midwives (10.6%), and Mental Health Nursing (6.5%). These accounted for about 85% of the response received. This indicates that the Majority of the Nurses in Accra work within these four major fields. The demographic results of the study reflect that the Nurses accessed were mainly Staff Nurses (51.8%) and Nursing Officers (18.9%). While the study seeks to access the use and comfortability of panty girdles among actively engaged Nurses, these two ranks represent the active operational front of the nursing profession, as these two ranks directly engage with patients daily and directly run the OPDs.

The age range of the respondents with the highest frequency was found to be 26-35 years (56.6%); this was followed by 18-25 years (30%). These two highlighted age range accounts for more than 85% of the response received. Also, most of the respondents indicated that they had been working as Nurses for the period 0-2 years (65.4%), and 3-5 years (16.8), this is followed by period '10 years and above (11.5%), the working range with the least response was discovered to be 6-10 years.

Table 1. Demographic information of respondents

Variables	Frequency	Percentage
Age of Respondents		
18-25	148	30
26-35	279	56.6
36-45	44	8.9
46-55	11	2.2
56 and above	11	2.2
Field of Respondent		
CHN/ Public Health	146	29.7
Midwifery	52	10.6
Mental Health Nursing	32	6.5
General Nursing	222	45.1
Nursing Administration	15	3
Other (Enrolled Nurse)	25	5.1
Rank of Respondent		
CNO	29	6
DDNS	8	1.7
PNO	26	5.4
SNO	33	6.9
NO	91	18.9
SSN	45	9.4
SN	249	51.8
Years Working as a Nurse		
0-2 years	319	65.4
3-5 years	82	16.8
6-10 years	31	6.4
Above 10 years	56	11.5

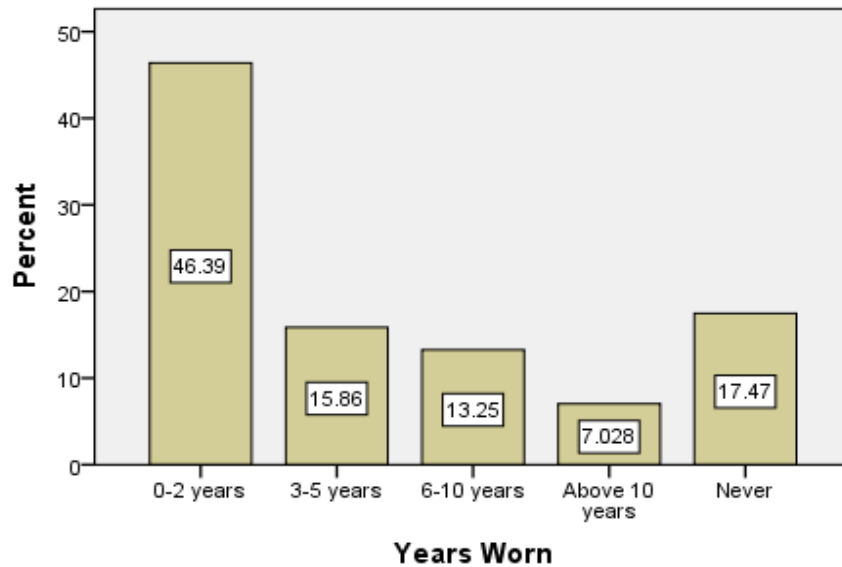


Figure 2. Number of years that respondents have used panty girdles

Figure 2. Shows the number of years respondents have been using panty girdles, it is important to note that the number of years for which respondents have been using panty girdles does not relate to the number of years that they’ve been working as nurses (as they may have been using panty girdles years before becoming nurses, or after joining the nursing profession). Figure 2 demonstrates that most respondents have been using panty girdles for a period of 0-2 years (46.39%), followed by 3-5 years (15.86%), 6-10 years (13.25%), and ‘Above 10 years (7.03%). Thus, 46.39% of the Nurses have been wearing panty girdles for less than 2 years, whereas a total of 36.14% of the respondents have been using the undergarment for more than 3 years. The data distribution demonstrated that the respondents have a wide range of experience in using panty girdles. Figure 3 are pictures of the eight (8) types of panty girdles that were presented to respondents for them to select the ones they most prefer. Figure 4 shows the four girdles most nurses like to put on during working hours.



Figure 3. Images of eight (8) main types of panty girdles on the market.

Respondents (out of the 8 basic types of panty girdles) were allowed to select four (4) types of panty girdles that they commonly used, Table 2 details the response collected from the survey. The most commonly used panty girdle by the respondents emerged to be the Boyshorts slimmers (40.0%), this was followed by High-waist shaping shorts (34.6%), Standard shaping shorts (33.8%), and the Mid-thigh Shapers (31.8%). Most respondents didn't go in for A, B, D & E because their uniform is close fitting so the panty lines draw at their buttocks which makes them feel uncomfortable when walking around.



Figure 4. Image of four (4) most commonly used types of panty girdles in ranking order.

Also, the respondents were further allowed to express the reasons behind their choice of panty girdles, as this provides more details and context for the use of the four types highlighted in Figure 4. The highlighted reasons for the respondent's preferred panty girdle type are illustrated in Table 3; however, the most occurring reason for the various preferred panty girdles as indicated by respondents was Comfortability (63.6%), Effectiveness in shaping the body (61.2%), Addresses particular arrears of the body (39%) and Utility (30.2%).

Table 2. Panty girdles commonly used by respondents

Type of Panty Girdle	Response	
	Count	Percentage %
Control Thongs	107	21.4%
Shaping Briefs	99	19.8%
Standard Shaping Shorts	169	33.8%
One Piece Bodysuit	41	8.2%
Body shorts Slimmer's	200	40.0%
High-waist shaping shorts	173	34.6%
Mid-thigh Shapers	159	31.8%
Butt Shapers	78	15.6%

Table 3. Reasons for the preferred type of panty girdle

Reasons	Response	
	Count	Percentage %
Comfortability	318	63.6%
Effectiveness in shaping your body	306	61.2%
It addresses particular areas of your body that you want to be trimmed (or enhanced)	196	39.2%

Utility (It enables free movement)	151	30.2%
Discreteness (It is unrevealing and does not draw attention)	143	28.6%
Others	4	0.8%

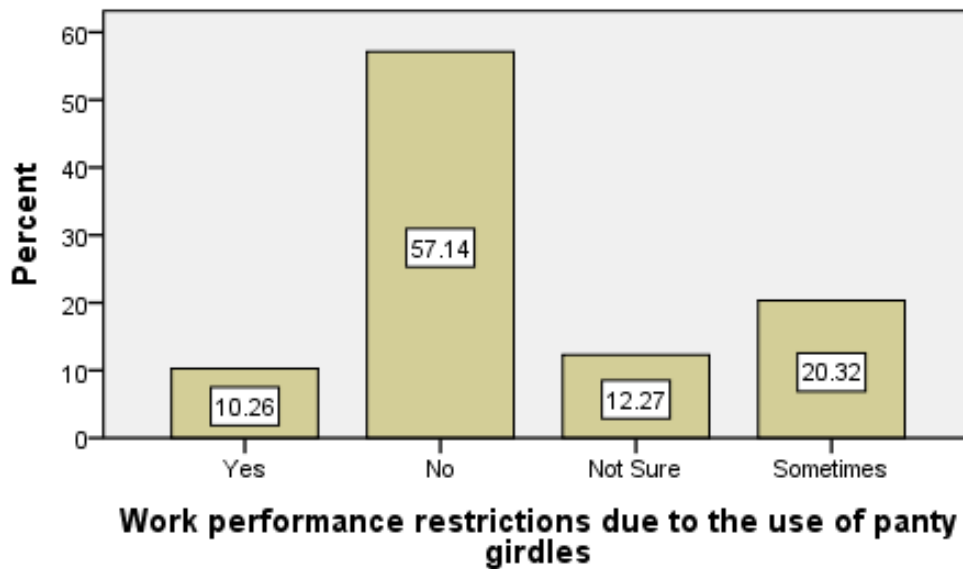


Figure 5. Performance restrictions due to the use of Panty Girdles

Table 4. Comfortability of panty girdles when performing regular work activities

Activity	Count	Min.	Max.	Mean	Mode	Std Dev.
Standing	500	1.00	7.00	4.93	7.00	1.87
Sitting	500	1.00	7.00	4.32	3.00	1.76
Walking	500	1.00	7.00	4.66	7.00	1.88
During work-related emergencies	500	1.00	7.00	4.12	3.00	1.71

Figure 5 highlights the response from Nurses as to whether the use of panty girdles presents any form of restrictions when performing work-related duties. Figure 5 shows the majority of respondents (57.14%) indicated that panty girdles do not present any form of performance restrictions.

Table 4 further presents an aggregated rating of the level of comfortability experienced by respondents when performing regular work activities. On a scale of 1-7, Standing while wearing a panty girdle at work recorded a mean rating of 4.93 (approx. 5) with a mode (i.e. the most frequently occurring response) of 7.00. The second most comfortable task experienced by respondents when using a panty girdle was; walking (mean of 4.66, mode of 7). Sitting and frenzy caused by emergencies at work were ranked as the least comfortable moments of the Nurses while wearing panty girdles. Also, a one-way repeated-measures analysis of variance (ANOVA) was conducted to evaluate the hypothesis that;

H_0 : There is no significant difference in the level of comfort experienced by nurses when sitting, standing, walking, and during work-related emergencies.

H_1 : There are significant differences in the level of comfort experienced by nurses when sitting, standing, walking, and during work-related emergencies.

The results of the Analysis of Variance tests performed showed that the activity performed by Nurses while in Panty Girdles has a significant effect on comfortability, this is concluded from Table 4.I where the Wilk's Lambda = 0.694,

$F(3,454) = 66.68, p < 0.05, n_2 = 0.31$. Thus, there is significant evidence to reject the null hypothesis. Further comparisons are demonstrated in Table 4. II indicated that each pairwise difference was significant, at $p < 0.01$. This means that there is a significant difference in comfortability experienced across all work-related activities. Thus, the level of comfort experienced by nursing during work-related activities can be ranked as (starting with the most comfortable and ending with the least comfortable), Standing, Walking, Sitting, and Emergency Situations.

Results of the Anova tests are presented under the heading 4.3.1. A detailed assessment of the types of discomforts presented by the use of panty girdles gives more insight into the nature and form of stress experienced during the various types of work-related activities. This data as presented in Table 5 highlights that, the three (3) most common discomfort resulting from the use of panty girdles by Nurses in Ghana could be delineated as; Excessive Heat (66.3%), Skin irritations (55.0%), and Discomfort when eating and drinking (37.8%).

Table 4.I. Multivariate Anova tests ^a

Effect	Value	F	Hypothesis Error df	Sig.	Partial Eta Noncent. Squared	Parameter	Observed Power ^c		
Comfortability	Pillai's Trace	.306	66.682 ^b	3.000	454.000	.000	.306	200.047	1.000
	Wilks' Lambda	.694	66.682 ^b	3.000	454.000	.000	.306	200.047	1.000
	Hotelling's Trace	.441	66.682 ^b	3.000	454.000	.000	.306	200.047	1.000
	Roy's Largest Root	.441	66.682 ^b	3.000	454.000	.000	.306	200.047	1.000

a. Design: Intercept

Within Subjects Design: Comfortability

b. Exact statistic

c. Computed using alpha = .05

Table 4.II. Pairwise comparisons

(I) Comfortability	(J) Comfortability	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for D	
					Lower Bound	Upper Bound
1	2	.630*	.054	.000	.487	.774
	3	.182*	.039	.000	.078	.285
	4	.867*	.067	.000	.690	1.043
2	1	-.630*	.054	.000	-.774	-.487
	3	-.449*	.051	.000	-.584	-.313
	4	.236*	.055	.000	.089	.383
3	1	-.182*	.039	.000	-.285	-.078
	2	.449*	.051	.000	.313	.584
	4	.685*	.059	.000	.530	.840
4	1	-.867*	.067	.000	-1.043	-.690
	2	-.236*	.055	.000	-.383	-.089
	3	-.685*	.059	.000	-.840	-.530

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

1	Standing	3	Walking
2	Sitting	4	During work-related emergencies

Table 5. Discomforts as a result of using panty girdles

Discomforts	Response	
	Count	Percentage %
Abdominal Pains	111	22.3%
Back Ache	69	13.9%
Skin Irritations	274	55.0%
Excessive heat (due to hot temperatures in Ghana)	330	66.3%
Stress due to pressure exerted by the panty girdle	111	22.3%
Numbness, Tingling, and Nerve pains	46	9.2%
Discomfort when eating or drinking	188	37.8%
Difficulty in Breathing	98	19.7%
Others (Please Specify)	12	2.4%

Table 5 presents further details on the types of discomforts experienced by nurses due to the use of the various types of panty girdles. Eight (8) main types/forms of discomforts produced by the use of panty girdles were presented to respondents for them to select which of these they could identify with from their own experience of panty girdles. The data collected highlighted that, the three (3) most common discomforts experienced by respondents were; Excessive Heat (66.3%), Skin irritations (55.0%), and Discomfort when eating and drinking (37.8%).

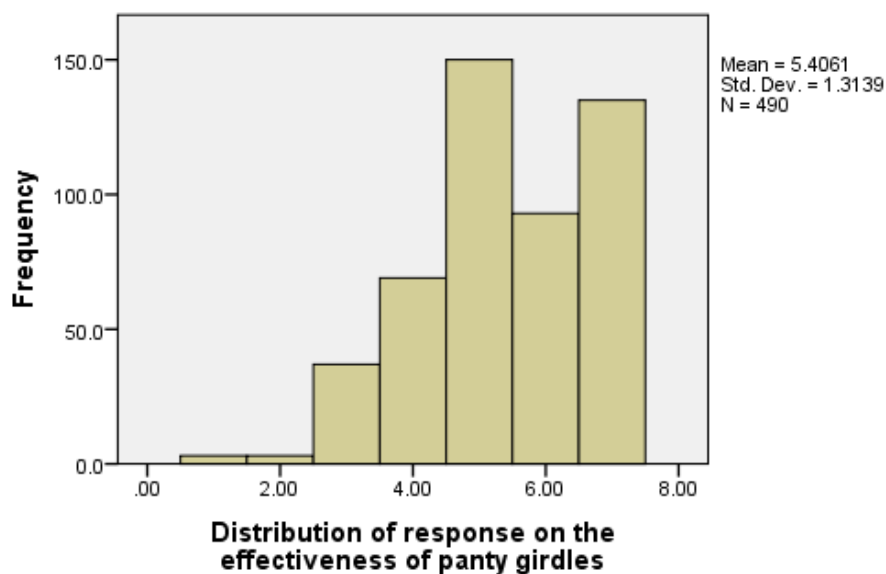


Figure 6. Rating of the effectiveness of panty girdles (on a scale of 1-7)

Table 6. Health benefits of using panty girdles

Health Benefits	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Prevents Overeating	13.8%	28.4%	26.9%	26.3%	4.6%
Back and Posture Correction	13.1%	40.3%	30.4%	14.7%	1.5%
Abdominal Support	41.5%	44.5%	11.9%	1.9%	0.2%
Alertness and Confidence	34.0%	46.5%	16.7%	2.9%	0.0%
Relieves pressure in the body	12.4%	17.7%	36.0%	27.2%	6.8%
Reduce stress and anxiety	9.5%	15.9%	36.3%	23.5%	14.8%

Figure 6 shows that the distribution is heavily dense around the scores 5, 6, and 7; thus the majority of respondents affirmed the effectiveness of their various selected panty girdle models with a mean score of 5.41 and a mode (i.e. the most frequently occurring score) of 5. This data shows that panty girdles present an effective undergarment (or tool) in shaping the body of the respondents and form an essential part of their collection of shape-wears.

However, an evaluation of the health benefits derived from the use of panty girdles shown in Table 6, highlights the following; Abdominal support stands out as the most affirmed health benefit with an affirmation from 86% of respondents (41.5% - Strongly Agree, 44.5% - Agree), this is followed by Alertness and Confidence (80.5%), and Back and posture correction (53.4%). Thus not only do panty girdles form an essential feature of shape-wears for Nurses (and females in general), it presents some health benefits that improve the general well-being as well as the outlook of its users.

Table 7. Association between types of panty girdles used and level of comfort experiences

Types of Panty Girdle	Discomforts							
	Abdominal Pains	Back Ache	Skin Irritations	Excessive heat	Stress from pressure exerted by PG	Numbness, Tingling, and Nerve pains	Discomfort when eating or drinking	Difficulty in Breathing
	Column N %	Column N %	Column N %	Column N %	Column N %	Column N %	Column N %	Column N %
Control Thongs	38.0%	34.8%	21.8%	22.4%	27.0%	39.1%	35.6%	30.5%
Shaping Briefs	28.7%	15.9%	20.3%	19.6%	23.4%	30.4%	20.7%	24.2%
Standard Shaping Shorts	33.3%	43.5%	29.9%	36.8%	52.3%	17.4%	30.9%	22.1%
One Piece Bodysuit	20.4%	8.7%	8.1%	10.6%	6.3%	15.2%	7.4%	5.3%
Boy shorts Slimmer's	48.1%	47.8%	41.3%	47.7%	51.4%	39.1%	47.9%	40.0%
High-waist shaping shorts	48.1%	46.4%	42.1%	40.5%	42.3%	50.0%	46.8%	58.9%
Mid-thigh Shapers	38.0%	24.6%	32.5%	31.5%	31.5%	28.3%	20.7%	21.1%
Butt Shapers	23.1%	29.0%	18.8%	15.6%	17.1%	19.6%	21.8%	25.3%

Table 8. Chi-square

	Pearson Chi-Square Tests	Discomforts
Types of Panty Girdles	Chi-square	307.973
	df	64
	Sig.	.001*

*. The Chi-square statistic is significant at the .05 level.

Discussion

This study was undertaken to analyze the comfort and effect of panty girdles on West African ladies (Nurses) during working hours by assessing;

- the types of panty girdles commonly used by Nurses
- the feeling of comfortability of panty girdles amongst Nurses
- the effectiveness of panty girdles in shaping the body and their respective health benefits.

Thus, related literature was reviewed to help the understanding of the study objective, data were further collected and critically analyzed given the study objectives.

From the analysis of the data received, it was discovered that the most commonly used panty girdles of the Nurses (as presented in Table 2) are Boy shorts slimmer's (40.0%), High-waist shaping shorts (34.6%), Standard shaping shorts (33.8%), and the Mid-thigh Shapers (31.8%). These types of panty girdles present a more relaxed and comfortable outlook, well-fitting for the active nature of the nursing profession. This corresponds well to Table 3; which highlights comfortability as the most important consideration for Nurses in choosing a panty girdle. Though conventional beliefs, according to Yoshino & Kokatsu (2012), have regarded the girdle as something from which one cannot expect comfort; the findings of this study demonstrate otherwise, as Comfortability is the prime consideration for the selection of shapewear amongst Nurses, with effectiveness in shaping the body being secondary.

The study further revealed that the respondents generally affirmed that their respectively preferred types of panty girdles are comfortable and do not present any serious performance restrictions at work Figure 5. Assessing the various demands of work-related activities revealed that with the panty girdles the respondents were able to freely perform work-related duties while standing, and walking without any significant experience of discomfort (Table 4). However, the data highlighted that work-related activity performed while sitting was not as comfortable due to the girdles. And also in situations of work emergencies, panty girdles present some experience of discomfort to the user Table 4. Some of the prominent discomforts attributed to the use of panty girdles were discovered to be, Excessive Heat (due to hot temperatures in Ghana), Skin irritations, and Discomfort when eating and drinking. It was discovered from the study that, panty girdles are generally effective in shaping the body, and more than just a shape-wear, it affords the user some important health benefits such as abdominal support, Alertness, and Confidence, back and posture correction.

Finally, to establish whether a significant relationship exists between the type of panty girdles used and the level of comfort experienced by respondents, a chi-square test of association was performed. The analysis revealed that there was a statistically significant level of association existing between the types of panty girdles commonly used and the discomfort experienced as a result of using panty girdles, with a p-value of 0.001, which is many bases lower than that significant value of 0.05. Table 7 shows that the majority of the respondents who experience discomfort with panty girdles are users of Standard shaping shorts, Body shorts slimmer, and High-waist shaping shorts. For all the discomforts highlighted in the study users of Standard shaping shorts, Body shorts slimmer, and High-waist shaping shorts records the largest reports on discomforts.

Conclusion

The present study highlighted the most commonly used types of panty girdles in the market which are, control thongs, shaping briefs, standard shaping shorts, one-piece bodysuits, Boy shorts slimmer, high-waist shaping shorts, mid-thigh shapers, and butt shapers. The study found out that, the most commonly used types of panty girdles by Nurses in Ghana were; boy shorts slimmer, high-waist shaping shorts, standard shaping shorts, and mid-thigh shapers. The study also found that the prime consideration of the choice of panty girdles worn by the nurses was; Comfortability, this is then followed by consideration of 'effectiveness in shaping the body', 'addressing particular areas of the body, and 'utility'.

The study further discovered that the nurses regarded panty girdles generally as being comfortable and non-interruptive in work performance, especially during work involvement that involved standing and walking. However, the nurses affirmed that panty girdles can be uncomfortable in situations involving sitting and work-related emergencies. With regards to shaping the body, panty girdles were found to be effective in shaping the body and giving nurses an appealing outlook in their uniforms. Panty girdles were also found to provide users with some key health benefits which include, Abdominal Support, Alertness and confidence, back, and Posture Correction.

The findings of the research revealed that there was a significant association between the type of panty girdles used and the level of comfort experienced by Nurses. Thus as much as the type of panty girdle that one selects affects their physical outlook, it also contributes to their feeling of comfort and their general physical well, as such the selection of the type of panty girdle used should be done with much circumspection.

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Competing interest

The authors declare that they have no competing interests.

Funding Statement

2020 National Social Science Foundation of Art Project: "History of Chinese women's underwear" (Grant / Award Number: 20BG134).

Acknowledgment

I acknowledge Jacqueline Asare- Awuku (Mrs.) for taking the time to help me with the pictures.