



The ideal gluteal contouring in Thai-transwomen: cross-sectional descriptive study

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Background: Gluteal contouring is one of the major concerns of transwomen worldwide. Hip and gluteal surgery, as one type of gender-affirmation surgery (GAS), is now increasing in popularity to alleviate gender incongruence. This study investigated the ideal buttock shape in the Thai-transwomen population, which can further aid in the guidance for hip and gluteal surgery.

Methods: A cross-sectional descriptive study was done on transwomen attending services at Tangerine Community Health Center, the Plastic and Reconstructive Surgery Clinic in Chulalongkorn Hospital, and Gender Health Community from 2022 to 2023. Participants were inquired about their ideal gluteal contouring using survey images of gluteal contouring of varying proportions and gluteal shapes on posterior and lateral views.

Results: Among 373 participants, the most preferred waist-to-hip ratio (WHR) in the posterior view and lateral view were 0.65 and 0.70, respectively. Regarding gluteal convexity, many participants preferred round shape buttocks the most (47.45%), followed by the A-shape (43.97%), square shape (7.77%) and, V-shape (0.80%). In the gluteal projection aspect, the most attractive type was the middle buttock type which data were congruence among each subgroup population.

Conclusions: The image of a narrowing waist proportionated with a widening hip on the posterior view, with the WHR of 0.65, could be considered an ideal perception of beauty in transwomen. It could help the patient in decision-making and guiding the surgical planning.

Keywords: Ideal gluteal contouring; Thai-transwomen; cross-sectional descriptive study

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Introduction

Transwomen were individuals who were assigned male at birth (AMAB) and defined themselves as women (1). Many medical interventions could be used to align their external appearance to their gender identity including gender-affirmation hormone therapy (GAHT) and gender-affirmation surgery (GAS) (2). The surgery was categorized into three groups consisting of facial surgery, breast surgery, and bottom surgery which included genitals, hip, and gluteal surgery (2,3). Throughout the decade, the buttocks persisted as a feminine figure of beauty raising the demand for body contouring surgery (4-7). To reduce the discrepancies between their gender identity and women, they looked for a perfect shape (8).

Although the perception of beauty varied in each individual, the previous studies revealed that the perception of female beauty was influenced by many factors and they concluded that the waist-to-hip ratio (WHR), body mass index (BMI), and curvy shape were the main standard factors to determine the shape of beauty (9). Regarding the shape of beauty, the WHR was more

influenced than body size (10). Many studies suggested a WHR of 0.70 as an ideal according to Miss America pageant winners (11), however, some authors from other studies rejected it due to greater variation in WHR with 0.67 as an average ratio (10,12,13). Recently, there was a study updated that lower WHR of about 0.60 and 0.65 represented more female attractiveness with the impact of rapidly spreading media (14).

To achieve a beautiful shape contouring, there was more anatomical complexity than just enhancing size (15). It is important to understand gluteal region morphology including convexity and projection illustrated in *Figure 1* (15). In terms of convexity, there was classified by three anatomical landmarks with skeletal structure (*Figure 2*) resulting in four gluteal shapes on the posterior view: round, square, A-shape, and V-shape (16). Whereas projection, on the lateral view, there were using the upper inner gluteal-sacral junction divided into three shapes including upper, middle, and lower buttocks (16). The relationships between the area around the gluteal region as mentioned above were perceptions that should be acknowledged to design an aesthetic appearance and surgical planning (15).

Despite the dramatic desire for gluteal contouring surgery, there were many defining ideal female buttocks, but less literature was studied on transwomen, in contrast to the high demand for surgery to further feminization. Therefore, we aim to survey the preference for the ideal gluteal contouring in transwomen. We present this article in accordance with the STROBE reporting checklist (available at <https://tau.amegroups.com/article/view/10.21037/tau-23-678/rc>).

Methods

We conducted a cross-sectional descriptive study to survey the most attractive gluteal contouring in Thai-transwomen about their desire for either gluteal shape with different proportions. The study was approved by the Institutional Review Board of the Faculty of Medicine at Chulalongkorn University in Bangkok, Thailand (No. 0127/65). It also conducted in accordance with the Declaration of Helsinki (as revised in 2013). Before participation, informed consent was obtained from each individual participant. Between April 2022 and May 2023, the survey was done by a sample of 373 subjects among Thai-transwomen aged over 20 years old, which included 334 subjects who had visited the Tangerine Community Health Center, 35 cases from patients who had attended to consult at the Plastic and Reconstructive

Highlight box

Key findings

- Most of the participants (50.94%) preferred a curvier posterior [waist-to-hip ratio (WHR) 0.65], while favoring a slimmer lateral profile (WHR 0.70), except for those 50+ years.
- Participants preferred a round gluteal shape (47.45%), with variations by age group and time spent transitioning. Middle-aged respondents and those recently transitioned favored roundness, while younger and longer-transitioned participants preferred the A-shape.
- Transgender women across diverse demographics, including age, transition history, and surgery intentions, overwhelmingly preferred a moderate gluteal projection (70.24%).

What is known and what is new?

- The gluteal region plays a significant role in beauty ideals for women and transwomen.
- Notably, this population showed a preference for a lower WHR of 0.65 compared to the 0.7 typically cited in other studies. There was no significant difference in preference based on factors like age, transition history, or surgery intentions.

What is the implication, and what should change now?

- While Thai-transwomen prefer a unique gluteal contour (WHR 0.65), further research across diverse groups is needed to refine surgical approaches and promote acceptance of varied beauty standards.

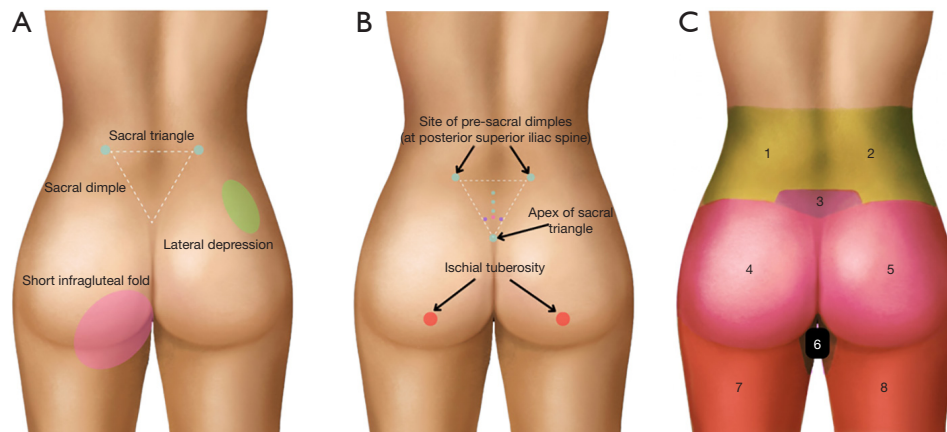


Figure 1 Anatomical illustrations of gluteal landmarks, features, and aesthetic units. (A) The superficial anatomical landmarks: iliac crest, posterior-superior iliac spine, sacrum, coccyx, and ischial tuberosity; (B) the specific gluteal feature: sacral dimple, sacral triangle, short infragluteal fold, and lateral depression; (C) gluteal aesthetic units. 1 and 2, symmetrical flank units; 3, sacral triangle; 4 and 5, symmetrical gluteal units; 6, infragluteal diamond; 7 and 8, symmetrical thigh units.

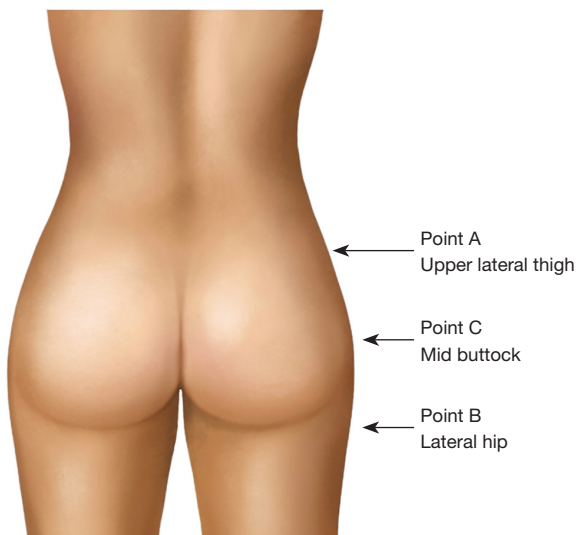


Figure 2 Points for categorizing buttock types.

Surgery Clinic in Chulalongkorn Hospital, and four cases surveyed from members of Gender Health Community, Bangkok, Thailand. There were nine questions divided into two parts. The first part was general information and the second part showed survey images.

We developed survey images by digitally altering them with imaging software (Procreate; Savage Interactive Pty Ltd., Hobart, Tasmania, Australia) to create gluteal contouring of varying proportions and gluteal shapes on posterior and lateral views. The confirmation of proportion

accuracy was using the Procreate scale to measure the WHR. The anatomical landmarks of gluteal contouring used in this study were defined as waist circumference (midpoint between the inferior margin of the ribs and the superior border of the iliac crest) compared to hip circumference (the most prominent part of the buttock) as shown in *Figure 3*. The modifications applied reduction and augmentation of gluteal contouring size on ranges of two scales up and two scales down, whereby achieving five survey images with different WHR of 0.60, 0.65, 0.70, 0.75, and 0.80 on posterior and lateral views (*Figure 4*). The gluteal shape on a posterior view (convexity) used the same WHR (0.70) to classify into four different shapes including round, square, V-shape, and A-shape (*Figure 5*). Similarly, the gluteal shape on a lateral view (projection), the most prominent part according to each position, was divided into three different shapes with upper, middle, and lower buttocks (*Figure 6*).

All survey images were shown on the survey online questionnaires (Google form). Inside each panel, the survey images about WHR and projection were arranged respectively for apprehension, however, the convexity panel was arranged in shuffle option order to avoid bias. The subjects were asked to select the most attractive image.

Statistical analysis

The data were collected with Microsoft Excel 2016 (Microsoft Corporation, Redmond, WA, USA) for

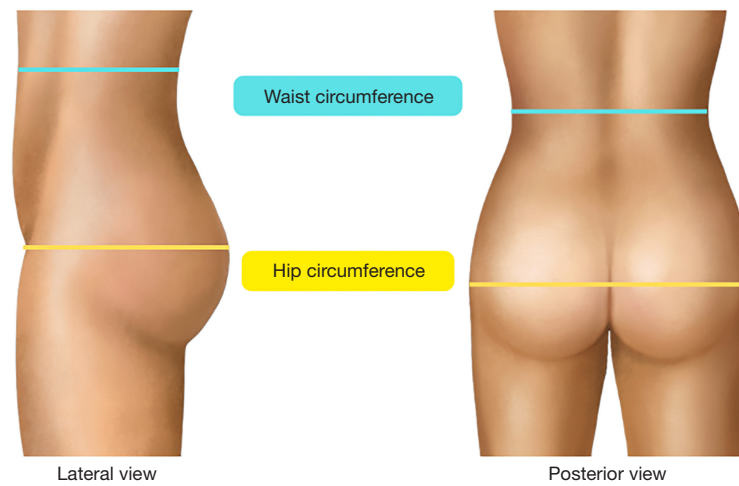


Figure 3 Waist circumference compared to hip circumference in lateral and posterior view.

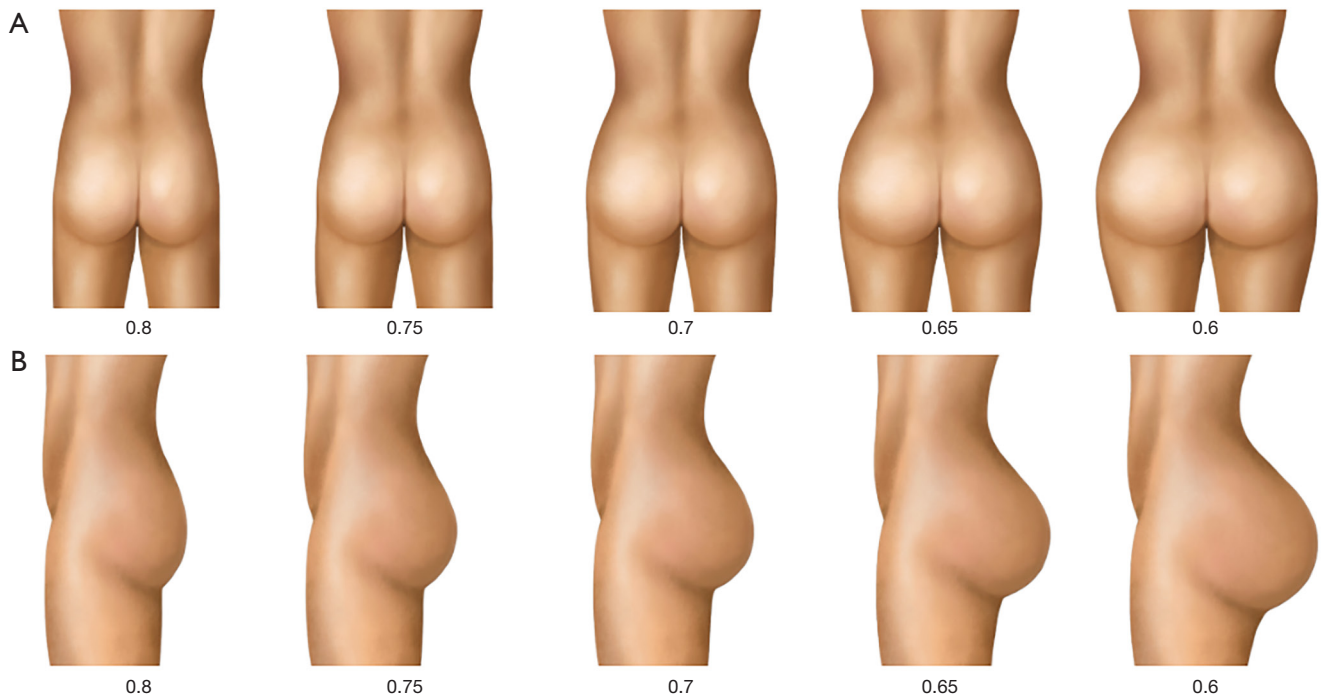


Figure 4 Difference of WHR. (A) Posterior view; (B) lateral view. WHR, waist-hip ratio.

categorization and were transferred to a SPSS Statistical software (IBM SPSS version 22; IBM Corporation, Armonk, NY, USA) for statistical analysis.

Results

A total of 385 respondents answered the survey but 12

of them were excluded due to not fitting age criteria. The remaining participants were all transwomen, with ages ranging from 20 to 58 years, with a mean age of 28.42 years. The most represented age group was the 20 to 29 years (65.15%). It is worth noting that the age distribution was not evenly spread across all age groups. Regarding the recruitment of participants, the majority

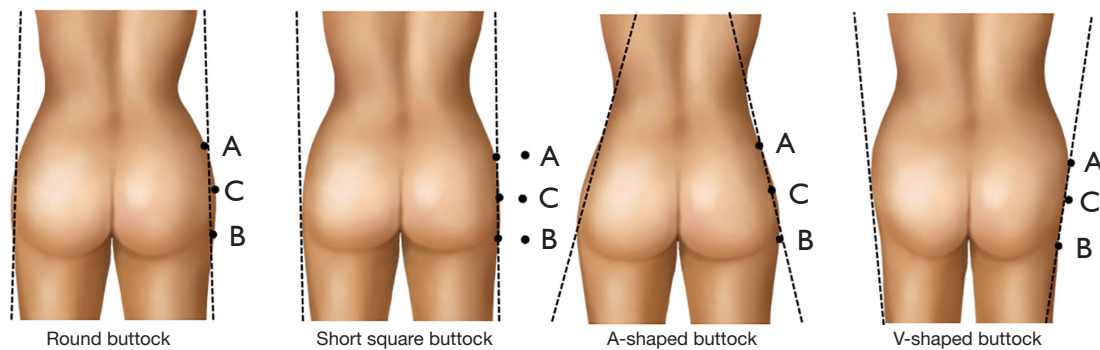


Figure 5 The classification of shape of buttock: round buttock, short square buttock, A-shaped buttock, V-shaped buttock based on points A, B, C (as illustrated in *Figure 2*).

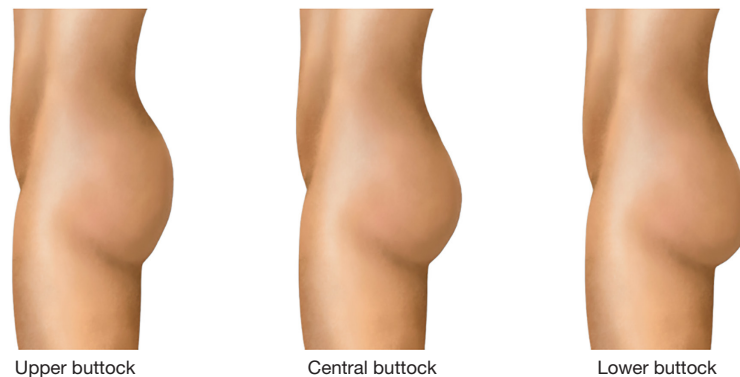


Figure 6 Differences of gluteal projection in lateral view.

of the population (89.54%) was from the Tangerang Community Health Center. In terms of the duration of being transwomen, respondents reported a range of 11 to 20 years (44.24%) and 21 to 30 years (34.05%). This suggests that a portion of the respondents had been living as transwomen for an extended period. Duration of taking hormones was diverse but most of the respondents took hormone for 6 to 10 years (36.19%) and less than 5 years (27.88%). A noteworthy finding was that 269 respondents (72.12%) expressed a desire to undergo sex reassignment surgery, indicating a strong interest within the surveyed population. Detailed baseline characteristics of responders were listed in *Table 1*.

WHR preference

From a population perspective, the study revealed that the most attractive WHR in the posterior view was 0.65, preferred by the majority (50.94%) of the respondents

(*Table 2*). This preference for a WHR of 0.65 was consistent across different age groups, including the 20 to 29 years age group (51.85%) and the 30 to 39 years age group (51.38%). The second most attractive WHR in the posterior view was 0.60 (38.07%) which was more prominent by age group 40 to 49 years (55.56%) and the group above 50 years (66.67%). The age of began transwomen and time to be transwomen did not influence the preferences for WHR in the posterior view of 0.65, except in group time to be transwomen more than 30 years tended to prefer 0.6 for WHR. The group of transwomen who plan to undergo sex reassignment surgery was attracted by 0.65 for WHR while the group of transwomen who refuse to undergo sex reassignment surgery was attracted by 0.60.

In the lateral view, the most attractive WHR was 0.70 (41.82%) and 0.65 (27.88%) respectively. 0.70 for WHR on the lateral view was the most attractive in all age group except the age groups more than 50 years which tended to prefer 0.65 for WHR in lateral view. This preference

Table 1 Baseline characteristics

Characteristics	Overall (n=373)	Tangerine Community Health Center (n=334)	Plastic and Reconstructive Surgery Clinic (n=35)	Gender Health Community (n=4)
Age (years), mean ± SD	28.42±6.09	28.48±6.21	28.4±4.91	23.25±2.99
Age group (years), n (%)				
20–29	243 (65.15)	217 (64.97)	22 (62.86)	4 (100.00)
30–39	109 (29.22)	98 (29.34)	11 (31.43)	0
40–49	18 (4.83)	16 (4.79)	2 (5.71)	0
≥50	3 (0.80)	3 (0.90)	0	0
Age of began transwomen (years), n (%)				
≤10	266 (71.31)	239 (71.56)	24 (68.57)	3 (75.00)
>10	107 (28.69)	95 (28.44)	11 (31.43)	1 (25.00)
Time to be transwomen (years), n (%)				
≤10	44 (11.80)	41 (12.28)	3 (8.57)	0
11–20	165 (44.24)	146 (43.71)	17 (48.57)	2 (50.00)
21–30	127 (34.05)	112 (33.53)	13 (37.14)	2 (50.00)
>30	37 (9.92)	35 (10.48)	2 (5.71)	0
Duration of taking hormone (years), n (%)				
≤5	104 (27.88)	98 (29.34)	4 (11.43)	2 (50.00)
6–10	135 (36.19)	121 (36.23)	13 (37.14)	1 (25.00)
11–15	79 (21.18)	66 (19.76)	12 (34.29)	1 (25.00)
16–20	45 (12.06)	41 (12.28)	4 (11.43)	0
>20	10 (2.68)	8 (2.40)	2 (5.71)	0
Plan to undergo sex reassignment surgery, n (%)				
Yes	269 (72.12)	236 (70.66)	30 (85.71)	3 (75.00)
No	104 (27.88)	98 (29.34)	5 (14.29)	1 (25.00)

SD, standard deviation.

for a WHR of 0.70 was consistent regardless of the age of beginning transition, time spent as a transwoman, and the intention to undergo sex reassignment surgery.

These findings provide insights into the attractiveness preferences for WHRs in both posterior and lateral views among the surveyed population.

Gluteal shape on the posterior view preference

The study revealed that the most attractive gluteal shape was the round shape, preferred by 47.45% of the respondents (Table 3). This preference for the round shape was consistent across different age groups, with

the highest preference observed in the 30 to 39 years age group (47.71%) and the 40 to 49 years age group (83.33%). The second most attractive gluteal shape was the A-shape, preferred by 43.97% of the respondents. Among the age groups, the 20 to 29 years age group showed a higher preference for the A-shape (47.33%). Interestingly, respondents in the group above 50 years of age exhibited similar preferences for the square shape, V-shape, and A-shape.

When considering the age at which respondents began their transition, those who started less than 10 years ago were more attracted to the round shape (48.50%), while those who began their transition more than 10 years ago

Table 2 Preference of WHR

WHR	Total, n	Posterior view, n (%)					Lateral view, n (%)				
		0.60	0.65	0.70	0.75	0.80	0.60	0.65	0.70	0.75	0.80
Overall	373	142 (38.07)	190 (50.94) [†]	34 (9.12)	6 (1.61)	1 (0.27)	42 (11.26)	104 (27.88)	156 (41.82) [†]	62 (16.62)	9 (2.41)
Age group (years)											
20–29	243	86 (35.39)	126 (51.85) [†]	27 (11.11)	4 (1.65)	0	24 (9.88)	67 (27.57)	103 (42.39) [†]	42 (17.28)	7 (2.88)
30–39	109	44 (40.37)	56 (51.38) [†]	7 (6.42)	2 (1.83)	0	14 (12.84)	31 (28.44)	44 (40.37) [†]	19 (17.43)	1 (0.92)
40–49	18	10 (55.56) [†]	7 (38.89)	0	0	1 (5.56)	4 (22.22)	4 (22.22)	8 (44.44) [†]	1 (5.56)	1 (5.56)
≥50	3	2 (66.67) [†]	1 (33.33)	0	0	0	0	2 (66.67) [†]	1 (33.33)	0	0
Age of began transwomen (years)											
≤10	266	106 (39.85)	135 (50.75) [†]	22 (8.27)	3 (1.13)	0	31 (11.65)	73 (27.44)	113 (42.48) [†]	44 (16.54)	5 (1.88)
>10	107	36 (33.64)	55 (51.40) [†]	12 (11.21)	3 (2.80)	1 (0.93)	11 (10.28)	31 (28.97)	43 (40.19) [†]	18 (16.82)	4 (3.74)
Time to be transwomen (years)											
≤10	44	13 (29.55)	21 (47.73) [†]	9 (20.45)	1 (2.27)	0	2 (4.55)	14 (31.82) [†]	17 (38.64)	9 (20.45)	2 (4.55)
11–20	165	56 (33.94)	95 (57.58) [†]	11 (6.67)	3 (1.82)	0	16 (9.70)	41 (24.85)	75 (45.45) [†]	29 (17.58)	4 (2.42)
21–30	127	52 (40.94)	61 (48.03) [†]	12 (9.45)	2 (1.57)	0	19 (14.96)	37 (29.13)	49 (38.58) [†]	20 (15.75)	2 (1.57)
>30	37	21 (56.76) [†]	13 (35.14)	2 (5.41)	0	1 (2.70)	5 (13.51)	12 (32.43)	15 (40.54) [†]	4 (10.81)	1 (2.70)
Duration of taking hormone (years)											
≤5	104	38 (36.54)	51 (49.04) [†]	12 (11.54)	3 (2.88)	0	7 (6.73)	31 (29.81)	51 (49.04) [†]	14 (13.46)	1 (0.96)
6–10	135	52 (38.52)	67 (49.63) [†]	14 (10.37)	1 (0.74)	1 (0.74)	14 (10.37)	37 (27.41)	47 (34.81) [†]	31 (22.96)	6 (4.44)
11–15	79	26 (32.91)	46 (58.23) [†]	6 (7.59)	1 (1.27)	0	13 (16.46)	19 (24.05)	36 (45.57) [†]	9 (11.39)	2 (2.53)
16–20	45	21 (46.67) [†]	21 (46.67) [†]	2 (4.44)	1 (2.22)	0	5 (11.11)	15 (33.33)	18 (40.00) [†]	7 (15.56)	0
>20	10	5 (50.00) [†]	5 (50.00) [†]	0	0	0	3 (30.00)	2 (20.00)	4 (40.00) [†]	1 (10.00)	0
Plan to undergo sex reassignment surgery											
Yes	269	94 (34.94)	145 (53.90) [†]	25 (9.29)	4 (1.49)	1 (0.37)	29 (10.78)	74 (27.51)	113 (42.01) [†]	47 (17.47)	6 (2.23)
No	104	48 (46.15) [†]	45 (43.27)	9 (8.65)	2 (1.92)	0	13 (12.50)	30 (28.85)	43 (41.35) [†]	15 (14.42)	3 (2.88)

[†], refer to the highest preference for the WHR. WHR, waist-to-hip ratio.

showed a higher preference for the A-shape (48.60%).

These findings suggest that the attractiveness of gluteal shapes can vary among different age groups and based on the duration of time spent as a transwoman. The round shape was the most preferred overall, particularly among the middle-aged groups, while the A-shape was favored by younger respondents and those who had been transitioning for a longer duration.

Gluteal shape on the lateral view preference

When considering all factors including age group, age of beginning transition, time spent as a transwoman, duration of hormone intake, and intention to undergo sex reassignment surgery, the results align with the overall population. The most attractive gluteal projection is in the middle category, preferred by the majority (70.24%) of the respondents (Table 4).

Table 3 Preference of gluteal shape on the posterior view (convexity)

Gluteal shape (convexity)	Total, n	Round, n (%)	Square, n (%)	V-shape, n (%)	A-shape, n (%)
Overall	373	177 (47.45) [†]	29 (7.77)	3 (0.80)	164 (43.97)
Age group (years)					
20–29	243	110 (45.27)	17 (7.00)	1 (0.41)	115 (47.33) [†]
30–39	109	52 (47.71) [†]	11 (10.09)	1 (0.92)	45 (41.28)
40–49	18	15 (83.33) [†]	0	0	3 (16.67)
≥50	3	0	1 (33.33)	1 (33.33)	1 (33.33)
Age of began transwomen (years)					
≤10	266	129 (48.50) [†]	22 (8.27)	3 (1.13)	112 (42.11)
>10	107	48 (44.86)	7 (6.54)	0	52 (48.60) [†]
Time to be transwomen (years)					
≤10	44	19 (43.18)	4 (9.09)	0	21 (47.73) [†]
11–20	165	73 (44.24)	10 (6.06)	0	82 (49.70) [†]
21–30	127	65 (51.18) [†]	11 (8.66)	1 (0.79)	50 (39.37)
>30	37	20 (54.05) [†]	4 (10.81)	2 (5.41)	11 (29.73)
Duration of taking hormone (years)					
≤5	104	44 (42.31)	6 (5.77)	1 (0.96)	53 (50.96) [†]
6–10	135	65 (48.15) [†]	12 (8.89)	0	58 (42.96)
11–15	79	38 (48.10) [†]	7 (8.86)	1 (1.27)	33 (41.77)
16–20	45	23 (51.11) [†]	4 (8.89)	0	18 (40.00)
>20	10	7 (70.00) [†]	0	1 (10.00)	2 (20.00)
Plan to undergo sex reassignment surgery					
Yes	269	132 (49.07) [†]	21 (7.81)	2 (0.74)	114 (42.38)
No	104	45 (43.27)	8 (7.69)	1 (0.96)	50 (48.08) [†]

[†], refer to the highest preference of gluteal shape on the posterior view (convexity).

This suggests that regardless of the specific demographic factors considered, the preference for a gluteal projection in the middle range remains consistent among the surveyed population.

Discussion

Given the change in the concept of beauty, the gluteal region remained an essential element in determining the state of being charming women (4–6). Likewise, many transwomen desired their body shape matching with their gender identity for further feminization and increased inquiries for body contouring surgery (7,17). Although several studies had tried to define the preference for

aesthetic female contouring adapting to transwomen (8,18), there was no primary literature investigating the true body image of transwomen to guide body contouring surgical planning. Therefore, we were the first study to survey the ideal gluteal contouring in transwomen.

This study enrolled a sample of 373 Thai-transwomen subjects and found that a lower WHR was chosen as the most attractive image in comparison with the commonly cited 0.70 from the previous study (14,19,20). Many of our subjects (50.94%) preferred a survey image with a WHR of 0.65 as their ideal gluteal contouring on the posterior view, followed by 0.60 (38.07%). The previous studies about transwomen inferred from aesthetic studies suggested that 0.70 is an estimated ideal (8,19), whereas only 9.12% of our

Table 4 Preference of gluteal shape on the lateral view (projection)

Gluteal shape (projection)	Total, n	Upper, n (%)	Middle, n (%)	Lower, n (%)
Overall	373	73 (19.57)	262 (70.24) [†]	38 (10.19)
Age group (years)				
20–29	243	49 (20.16)	167 (68.72) [†]	27 (11.11)
30–39	109	20 (18.35)	79 (72.48) [†]	10 (9.17)
40–49	18	3 (16.67)	14 (77.78) [†]	1 (5.56)
≥50	3	1 (33.33)	2 (66.67) [†]	0
Age of began transwomen (years)				
≤10	266	56 (21.05)	183 (68.80) [†]	27 (10.15)
>10	107	17 (15.89)	79 (73.83) [†]	11 (10.28)
Time to be transwomen (years)				
≤10	44	4 (9.09)	35 (79.55) [†]	5 (11.36)
11–20	165	37 (22.42)	110 (66.67) [†]	18 (10.91)
21–30	127	28 (22.05)	86 (67.72) [†]	13 (10.24)
>30	37	4 (10.81)	31 (83.78) [†]	2 (5.41)
Duration of taking hormone (years)				
≤5	104	22 (21.15)	71 (68.27) [†]	11 (10.58)
6–10	135	24 (17.78)	96 (71.11) [†]	15 (11.11)
11–15	79	16 (20.25)	57 (72.15) [†]	6 (7.59)
16–20	45	8 (17.78)	32 (71.11) [†]	5 (11.11)
>20	10	3 (30.00)	6 (60.00) [†]	1 (10.00)
Plan to undergo sex reassignment surgery				
Yes	269	58 (21.56)	181 (67.29) [†]	30 (11.15)
No	104	15 (14.42)	81 (77.88) [†]	8 (7.69)

[†], refer to the highest preference of gluteal shape on the lateral view (projection).

population was selected. Surprisingly, some studies revealed more variance in WHR and updated the ratio of 0.60 and 0.65 as the new ideal standard of perception of beauty trending shift to a curved shape (12,13,14,21). Moreover, considering the effect of subgroups such as age group, age of began transwomen, duration of taking hormones, or plan for sex reassignment surgery, there were no differences. However, on the lateral view, most subjects of our population (41.82%) chose a survey image with a WHR of 0.70 like other studies (14,22).

Interestingly, the most attractive gluteal contouring in transwomen on the posterior view was a figure of a smaller waist and larger hip, however on the lateral view, they taught that a WHR of 0.70 approximated to be their

ideal gluteal contouring. Respecting body contouring, the baseline characteristics of our survey populations differed from the other studies through gender identity, showing that transwomen preferred larger gluteal sizes. This may be the impact of standard beauty and fashion trends spreading rapidly in social media influenced by celebrity and male anatomical structure which consist of smaller pelvic bone, lesser body fat components, and different fat deposition that may demand a larger gluteal size to accomplish the perfect gluteal contouring (8,19).

In terms of gluteal convexity, much of our population preferred the round gluteal shape the most, followed by the A-shape, square shape, and V-shape respectively. These results were incongruent compared with previous

ideal gluteal studies among the worldwide population in 2016 (14). The studies revealed that the most attractive type among men and women was inferior gluteal convexity, defined as the shape with the most prominence point at the inferior gluteal fold or the A-shape in our studies (16,23,24). The second and third most attractive shape was the one with the most prominent point below the mid-vertical height of the buttock which was also the subtype of the A-shape in our study. When comparing each ethnicity, the majority of the Southeast Asian population also preferred the A-shaped buttock (14). A further study investigating the preference for a specific ratio of the placement of lateral prominence of buttocks in transwomen was recommended.

In addition, some reviews showed that projection was an important feature in creating an ideal buttock and can be classified by using specific anatomical landmarks (6). They suggested that the posterior prominence should have a 2:1 ratio between the points of the greater trochanter and the point of maximum projection of the mons pubis which implied no higher than the mid-vertical height of the buttocks (25). Like a previous study, many of our responders preferred the midpoint of the gluteal region (6,16).

There are different methods available to enhance the shape of the buttocks, such as silicone implants, fat grafting, lipofilling and liposuction. Compared to other implant procedure (face, body, breast augmentation), gluteal augmentation with silicone implants is the most aesthetically pleasing highly due to safe and effective surgical technique (26). Each of implant planes, subfascial (27) versus intramuscular (28,29) plane, have their own set of complications, such as wound dehiscence for the first technique and muscle atrophy, hematomas, and seroma for the latter but implant removal is a major concern (30). Gluteal augmentation with autologous fat grafting eliminates worries about implant displacement, but complications associated with this approach cannot be overlooked, such as fat embolism (17). Additionally, lipofilling procedures can be considered as an alternative approach for increasing buttock size, which shows good effect for patients requiring upper arm remodeling surgery (31). Patients should consult with their doctor and decide which method they are most comfortable with. This study had potential limitations. Most of the participants included in this study were from the early adulthood stage which may introduce bias into the results. While our sample size was sufficient for analyzing the data, it would be more accurate because we had a larger sample. Previous studies showed that factors such as ethnicity,

geography, culture, and demographics can influence the results (22). Although, our study did not collect data on these factors; however, it was worth noting that our study still yielded significant results, suggesting that these factors may not had a substantial impact on the overall outcomes. Considering the limitations discussed above, we anticipate a larger sample size to enhance the accuracy and reliability of the study results. It was essential to ensure that the study population represents a diverse range of participants including ethnicities, geographic locations, cultures, and demographics contributing to exploring the potential influence of these factors on ideal body contouring perception. This will enable a more comprehensive understanding of how preferences may vary across different populations.

Conclusions

To achieve aesthetic body contouring, there were varied procedures for each person. This study illustrated the most attractive gluteal contouring in Thai-transwomen to help the patients using as a reference for decision-making and guiding plastic surgeons in surgical planning. The image of a narrowing waist proportionated with a widening hip on the posterior view, with a WHR of 0.65, could be considered an ideal perception of beauty in transwomen. However, this study focused on identical ethnic groups and geographic regions and exploring the preferences of various populations should be reviewed for application to other countries.

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Footnote

Reporting Checklist: The authors have completed the STROBE reporting checklist. Available at <https://tau.amegroups.com/article/view/10.21037/tau-23-678/rc>

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uniform disclosure form (available at <https://tau.amegroups.com/article/view/10.21037/tau-23-678/coif>). The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. The study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). The study was approved by the Institutional Review Board of the Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand (No. 0127/65) and informed consent was obtained from all individual participants.

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