

## ORIGINAL RESEARCH—ANATOMY/PHYSIOLOGY

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# Erect Penile Length and Circumference Dimensions of 1,661 Sexually Active Men in the United States

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### ABSTRACT

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**Introduction.** Penile size continues to receive popular and empirical attention. Little is known about the process of self-measurement and whether the behaviors a man engages in to become erect for self-measurement are associated with his erect penile dimensions.

**Aims.** The article aims to assess men's erect penile dimensions in a study in which the men would presumably be motivated to report accurate information about their penis size; and to explore associations between men's erect penile dimensions, their method of measurement, and their demographics.

**Methods.** Data are from an Internet-based baseline phase of a large prospective daily diary study that compared men's use of a standard-sized condom to men's use of a condom sized to fit their erect penis.

**Main Outcome Measures.** The main outcomes are participant characteristics, activities engaged in during self-measurement process, and self-reported erect penile length and circumference.

**Results.** For this sample of 1,661 men, the mean erect penile length was 14.15 cm (SD = 2.66; range = 4 to 26 cm), and the mean erect penile circumference was 12.23 cm (SD = 2.23; range = 3 to 19). Participant characteristics were not associated with measured length or circumference. Most men measured their penis while alone, using hand stimulation to become erect.

**Conclusions.** In this sample of men who measured their erect penile length and circumference for the purposes of receiving a condom sized to fit their erect penis, we found a mean erect penile length of 14.15 cm and a mean erect penile circumference of 12.23 cm. The self-reported erect penile dimensions in this study are consistent with other penile dimension research. Also, findings suggest that mode of getting an erection may influence erect penile dimensions. Additionally, how a man becomes erect for self-measurement may be associated with his erect penile length and/or circumference. **Herbenick D, Reece M, Schick V, and Sanders SA. Erect penile length and circumference dimensions of 1,661 sexually active men in the United States. J Sex Med 2014;11:93–101.**

**Key Words.** Penis Size; Penile Length; Penile Circumference; Penile Dimensions

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### Introduction

Questions related to the range of penile dimensions continue to receive popular and empirical attention. In the past eight decades, a number of studies have assessed penile dimensions of men from around the globe, including the United States, France, Germany, Korea, India, Nigeria, Scotland, Iran, Egypt, Greece, Italy,

Israel, and Turkey [1–6]. Study samples have included men from the general population, men with erectile dysfunction, as well as men seeking penile enlargement surgery [1–10].

Penile measurements are commonly conducted by having men or clinicians measure the length and circumference of the penis in a flaccid, stretched, or erect state. While stretched, compared with unstretched, measurements of the flaccid penis are

a more accurate predictor of erect penile dimensions [9], this methodology may introduce bias if experimenters vary in the amount of force used to stretch the penis. Thus, erect penile dimensions are largely regarded as the least biased measurement of penis size. Still, studies that report erect penile dimensions have been methodologically complicated. Research methodologies that involve having a clinician measure study participants' erect penises may have, as a limitation, that—in the presence of a clinician—men may find it difficult to become aroused enough to get or maintain an erection sufficient for measurement by a member of the research team. For example, in a study of about 300 men, 25% were unable to achieve or maintain an erection sufficient for measurement [11]. In addition, men with larger-sized penises may self-select to be measured by clinicians, as may have been the case in a study of penis size that involved asking men (mostly male college students) on spring break to have their erect penis measured by medical staff [11]. The resulting average erect penile length (5.9 in) was larger than had been found in several other studies of erect penile dimensions.

Other research protocols have involved asking men to measure their own erect penis and then report data back to researchers. Such research has had, as a limitation, the possibility that men may report inaccurate penile measurements to the research team. Primarily, the concern has been about men overreporting their penis size given that, in contemporary Western cultures, larger penises tend to be regarded more favorably than penises of smaller sizes [12,13]. Additionally, past research has demonstrated that men tend to underestimate their penis size (i.e., a greater proportion of men report that their penis is average or below average in size) and many men seek to increase the size of their penis through pills, exercise, devices, or surgeries [14–16].

Data for the present study are from the baseline phase of a larger study that involved the testing of two types of condoms [17,18]. In our study, men enrolled in a study of a condom designed to fit their erect penile dimensions in terms of both length and circumference. Consequently, we communicated to them that it was important that they measure and report accurate penile size data so that they would receive condoms sized to fit their own erect penis. Thus, in contrast to most research that relies on participants to accurately assess their penis without retribution for inaccurate assessments, men in our study may have been motivated to measure their penis carefully and to

report accurate data (rather than to over- or under-report their penile dimensions).

### Aims

The purpose of the present study was to assess men's erect penile dimensions in a study in which the men would presumably be motivated to report accurate information about their penis size. A secondary purpose was to explore associations between men's erect penile dimensions, their method of measurement, and their personal characteristics.

### Methods

Data are from the baseline phase of a large prospective daily diary study—the Condom Fit and Feel Study—that compared men's use, during vaginal and/or anal intercourse, of a standard-sized condom to men's use of a condom sized to fit their erect penis. More detailed information about participants, methods, measures, and outcomes are reported elsewhere [17,18]. All study methods and protocols were approved by the Institutional Review Board at the authors' institution.

A total of 1,824 men living in the United States were recruited through electronic advertisements posted on sex, humor, and adult-oriented websites. Print advertisements were placed in community newspapers and sexually transmitted infection (STI)/HIV prevention organizations in seven U.S. states that were selected for their disproportionately high rates of STIs and HIV and because they were, collectively, geographically diverse. Men who visited the study website were presented with basic information about the study as well as a set of questions to determine their eligibility for study participation. Eligibility criteria included being at least 18 years old, having no history of adverse reactions to condoms, having a valid e-mail address and mailing address for study communications and receipt of study condoms, and being willing to use condoms during the study. Men who were eligible to participate in the study viewed an electronic consent form. Those who consented to participate in the study were able to download printed materials, including two erect penile measurement tools (one that used a letter-coding measurement system and a second that consisted of a centimeter-based measurement system) and detailed, illustrated directions about how to measure their erect penis, from the underside base and choosing the letter or numerical code that is

“closest to the end of the head of your penis,” for the purposes of the study. More information about the tool, including an illustration of it, is published elsewhere [17]. Analyses presented here use data from the centimeter-based measure of their erect penile dimensions (erect length and circumference). Because the study involved mailing condoms to men that were sized to fit their erect penis, it was necessary for men to first submit data related to their erect penis dimensions. A total of 1,661 men (91.1%) returned to the study website to report data related to their erect penile length, erect penile circumference, and other measures.

### Main Outcome Measures

Participants completed numerous items during Phase One (baseline data collection). Relevant to these analyses, men completed demographic items (e.g., age, race, ethnicity, education, residence, marital status, relationship status, sexual orientation).

Using a printed copy of a centimeter measure, men were also asked to report their penile dimensions in centimeters. Participants were asked to indicate how they attained an erection with a corresponding list of activities including (i) I stimulated my penis with my hand; (ii) I stimulated my penis with a vibrator, massager, or other sex toy; (iii) a female stimulated my penis with her hand; (iv) a male stimulated my penis with his hand; (v) A female used her mouth to help me; (vi) A male used his mouth to help me; (vii) I was the insertive partner in anal or vaginal intercourse with another person; (viii) I was the receptive partner in anal intercourse with another person; (ix) I used a vibrator, massage, or other sex toy to stimulate my anus or rectum; (x) I fantasized; (xi) I focused on the sensation of physical stimuli; (xii) Other.

Additionally, participants were asked to respond to questions about the use of the measurement tools. Specifically they were asked, “Overall, how easy was it for you to follow the instructions for using the kit?,” “How easy was it for you to use the parts of the kit that measured the length?,” and “How easy was it for you to use the parts of the kit that measured the circumference?” For each of these items, response choices were “very easy, somewhat easy, somewhat difficult, very difficult, no response.”

### Analysis

All data were analyzed with PASW Statistics 18 (SPSS, Chicago, IL, USA). Descriptive statistics

(e.g., means, frequencies) were used to describe the participant’s reported penile length and circumference. An ANOVA with a Scheffe posteriori comparison was used to assess differences in penile length/circumference based upon sociodemographic and measurement characteristics.

As can be seen in Table 4, the categories related to activities engaged in during the penile measurement process were collapsed based upon the number of participants who reported engaging in each behavior. Specifically, self-hand stimulation and fantasy were retained as separate categories given the large proportion of participants who indicated engaging in only those activities. In contrast, due to the small number of participants who reported sexual behavior with a male partner, hand stimulation (items iii and iv) and mouth stimulation (items v and vi) with a man/woman were collapsed into categories to focus on the behavior irrespective of partner gender. Finally, participants who reported more than one activity were included as a separate category. Given the small number of men who reported the other activities, they were collapsed into a final category of “other.” Participants were also asked whether they were alone or with a male/female sexual partner, a female/male friend (not sexual partner), or someone else for their penile measurement. Again, due to the small number of participants who indicated that they had a male partner, sexual partner, and friend, categories were collapsed to combine male/female sexual partners and male/female friends/other companions.

## Results

### Participant Characteristics and Penile Dimensions

As can be seen in Table 1, most participants were between the ages of 18 and 39 (90.2%), heterosexual/straight-identified (88.1%), White/Caucasian (82.8%), non-Hispanic (94.3%), had at least some college education (81.0%), and were in a relationship lasting at least 6 months (64.7%). Also, a total of 97.0% ( $n = 1,757$ ) reported having had sexual experience with a woman and 15.3% ( $n = 275$ ) reported having had sexual experience with a man.

### Erect Penile Dimensions

For this sample, the mean erect penile length was 14.15 cm ( $SD = 2.66$ ; range = 4 to 26 cm) and the mean erect penile circumference was 12.23 cm ( $SD = 2.23$ ; range = 3 to 19; see Tables 2 and 3).

**Table 1** Participant sociodemographic characteristics by penile length and circumference

	Participant distribution % (n)	Penile length Mean (SD)	F	Penile circumference Mean (SD)	F
Age			0.72		0.38
18–23	44.8 (753)	14.05 (2.50)		12.22 (2.20)	
24–29	26.9 (453)	14.12 (2.86)		12.21 (2.15)	
30–39	18.5 (311)	14.38 (2.65)		12.30 (2.31)	
40–49	7.3 (123)	14.18 (2.70)		12.32 (2.22)	
50–59	2.0 (33)	14.42 (3.14)		11.77 (2.42)	
60+	0.5 (9)	14.63 (3.46)		12.00 (4.04)	
Race			1.33		0.72
American Indian	0.8 (14)	12.86 (3.35)		11.36 (2.10)	
Asian/Asian American	9.0 (161)	14.14 (2.89)		12.10 (2.35)	
Black/African American	2.1 (38)	14.66 (3.23)		12.29 (2.57)	
Native Hawaiian/Other Pacific Islander	0.4 (8)	14.88 (2.03)		11.88 (2.03)	
White/Caucasian	82.8 (1,475)	14.18 (2.64)		12.25 (2.22)	
Other	4.8 (85)	13.79 (2.23)		12.03 (2.07)	
Ethnicity			0.02		0.49
Not Hispanic/Latino	94.3 (1,685)	14.17 (2.66)		12.23 (2.22)	
Hispanic/Latino	5.7 (101)	14.13 (2.71)		12.40 (2.04)	
Education			0.29		0.85
Grade school	3.7 (66)	14.08 (2.44)		12.42 (2.47)	
High school graduate or GED recipient	15.3 (276)	14.20 (2.68)		12.15 (2.09)	
Some college or associate degree	51.2 (922)	14.12 (2.68)		12.29 (2.17)	
Bachelor's degree	17.0 (306)	14.24 (2.75)		12.03 (2.48)	
Some graduate school	5.2 (93)	14.00 (2.36)		12.25 (1.95)	
Graduate degree	7.7 (138)	14.35 (2.56)		12.37 (2.08)	
Current residence			1.95		0.20
Large city	24.5 (445)	14.03 (2.58)		12.21 (2.19)	
Medium city	39.9 (723)	14.10 (2.57)		12.23 (2.24)	
Small city	19.6 (356)	14.46 (2.77)		12.25 (2.34)	
Small town	9.9 (179)	13.95 (2.80)		12.16 (2.06)	
Rural area	6.1 (110)	14.48 (2.98)		12.40 (2.16)	
Marital status			0.56		0.68
Single	42.0 (759)	14.19 (2.77)		12.32 (2.19)	
Married	24.9 (450)	14.23 (2.75)		12.14 (2.24)	
Partnered but not married	30.5 (551)	14.04 (2.42)		12.20 (2.22)	
Separated or divorced	2.3 (42)	14.38 (2.70)		12.05 (2.61)	
Widowed	0.2 (3)	—		—	
Relationship status			2.06		2.69
In a relationship over 6 months	64.7 (1,156)	14.16 (2.60)		12.15 (2.22)	
In a relationship under 6 months	12.3 (219)	13.88 (2.49)		12.48 (2.12)	
Dating several people	12.8 (228)	14.53 (3.07)		12.53 (2.19)	
Not dating	10.3 (184)	14.14 (2.64)		12.13 (2.38)	
Sexual Orientation			0.34		0.84
Heterosexual/Straight	88.1 (1,598)	14.16 (2.64)		12.22 (2.23)	
Bisexual	4.3 (78)	14.33 (2.55)		12.26 (2.04)	
Gay/Homosexual	7.1 (128)	13.99 (2.98)		12.37 (2.23)	
Questioning/Uncertain	0.4 (8)	14.63 (3.34)		11.13 (3.27)	
Other	0.1 (1)	—		—	

\* $P < 0.05$ ; \*\* $P < 0.01$ ; \*\*\* $P < 0.001$ **Table 2** Descriptive statistics for penile length and circumference measurements

	Penile length	Penile circumference
Mean	14.15	12.23
Median	14.00	12.00
Mode	14	12
Standard deviation	2.66	2.23
Minimum	4	3
Maximum	26	19

Neither penile length nor circumference measures were normally distributed in this sample ( $P < 0.001$ ).

As shown in Table 1, there were no other statistically significant relationships between participant characteristics and men's penile dimensions.

Table 4 presents data related to the circumstances of men's measurement process. Most men measured their erect penis by themselves (67.4%;  $N = 1,112$ ) and using their own hand, or two or more strategies (e.g., their own hand plus fantasy), in order to get an erection for the purposes of

**Table 3** Distribution of penile length and circumference measurements

Centimeters*	Penile length % (n)	Penile circumference % (n)
3		0.30 (5)
4	0.06 (1)	0.18 (3)
5	0.18 (3)	0.24 (4)
6	0.30 (5)	1.32 (22)
7	0.12 (2)	1.57 (26)
8	0.24 (4)	3.73 (62)
9	1.26 (21)	4.03 (67)
10	6.32 (105)	5.30 (88)
11	7.28 (121)	10.54 (175)
12	9.63 (160)	23.78 (395)
13	14.63 (243)	23.66 (393)
14	16.32 (271)	15.29 (254)
15	14.63 (243)	5.00 (83)
16	11.86 (197)	3.13 (52)
17	8.61 (143)	1.14 (19)
18	3.31 (55)	0.60 (10)
19	3.01 (50)	0.18 (3)
20	0.66 (11)	
21		
22	1.20 (20)	
23	0.24 (4)	
24	0.06 (1)	
25		
26	0.06 (1)	

\*Participants (n = 1) who indicated a measurement between two whole numbers were rounded-up to the nearest whole number.

completing their penile measurements. Men who reported having someone other than a sexual partner (e.g., a friend) with them while they measured their penis reported a significantly longer size than men who reported measuring by themselves or with a sexual partner.

The behaviors engaged in by men for the measurement process were also significantly related to reports of erect penile length and circumference. Specifically, men who reported that their partner stimulated their penis orally in order for him to get an erection reported a significantly longer penile

length than men who reported using only fantasy; there were no length-related differences for any other behaviors. Also, men who engaged in at least two of the listed behaviors reported a significantly larger circumference than men who used only fantasy to become erect; again, there were no circumference-related differences for men as related to other listed behaviors.

#### Use of the Measurement Tool

Most participants found it very or somewhat easy to follow the instructions for using the kit (95.2%, n = 1,556), to measure their erect penile length (92.7%, n = 1,514), and to measure their erect penile circumference (91.2%, n = 1,491). Each item had a low nonresponse rate of 1.7%, 1.7%, and 1.6%, respectively.

#### Discussion

This study reports on erect penile length and circumference measurements self-reported by 1,661 men living in the United States who measured their erect penises for the purpose of receiving a condom sized to fit their self-reported penile dimensions. We believe that many men in our sample would have been motivated to report accurate measurements in order to obtain a condom that fit their penis, thus enhancing the validity of their data.

Although many men may wish their penis were larger and may expend significant effort toward penile enlargement, this does not necessarily mean that men overreport their penile size to researchers. Indeed, we found that the mean erect penile dimensions in our study were consistent with the range of mean erect penile dimensions presented in previous studies, suggesting that men likely

**Table 4** Measurement and erection characteristics by penile length and circumference

	Participant distribution % (N)	Penile length Mean (SD)	F	Penile circumference Mean (SD)	F
Accompaniment			4.09*		2.22
None	67.4 (1112)	14.11 (2.67) <sup>A</sup>		12.18 (2.23)	
Sexual partner	31.7 (523)	14.19 (2.57) <sup>B</sup>		12.32 (2.18)	
Other (friend)	1.0 (16)	16.00 (3.83) <sup>B</sup>		13.19 (2.71)	
Behavior			3.36**		9.06***
My hand only	36.0 (660)	14.08 (2.82) <sup>AB</sup>		11.94 (2.43) <sup>AB</sup>	
Partner hand only	7.7 (141)	13.80 (2.65) <sup>AB</sup>		11.86 (2.35) <sup>AB</sup>	
Partner mouth only	3.9 (71)	15.00 (2.70) <sup>B</sup>		12.41 (2.40) <sup>AB</sup>	
Fantasized only	2.0 (36)	13.44 (2.85) <sup>A</sup>		11.58 (2.37) <sup>A</sup>	
One other activity	14.2 (260)	13.76 (2.90) <sup>AB</sup>		11.89 (2.29) <sup>AB</sup>	
Two or more activities	36.2 (664)	14.30 (2.41) <sup>AB</sup>		12.65 (1.86) <sup>B</sup>	

\*  $P < 0.05$ , \*\*  $P < 0.01$ , \*\*\*  $P < 0.001$ .

Groups that share a letter are not significantly different from one another.

self-report data accurately—or at least reliably—to research teams. As compared with similar samples, the mean reported penile length ( $M = 14.15$  cm;  $SD = 2.66$  cm) and circumference ( $M = 12.23$ ;  $SD = 2.23$ ) were more closely matched to pharmacological measurements (length = 12.9–14.5; width = 11.9–12.3) conducted by researchers than self-reported measurements (length = 15.6–16.6; width = 12.2–13.6) [17], indicating that participant inflation characteristic of self-report studies may have been minimized through the use of accuracy incentives.

We did not find a significant relationship between self-reported sexual orientation and erect penile dimensions. This may be because no such differences exist. It may also be because sexual orientation remains a difficult concept to measure and/or to operationalize. Bogaert and Hershberger reported that men from Kinsey's sample (collected in the 1930s through 1960s) who had "extensive homosexual experience" provided larger self-reported penile size data than men with little to no homosexual experience (who Bogaert & Hershberger grouped as "heterosexual") [19]. However, only 44% of men in each group provided measured penile dimension data to the researchers. Also, the average erect penile length for each group of men (6.46 inches [16.4 cm] for those in the "homosexual" group vs. 6.14 inches [15.6 cm] for those in the "heterosexual" group) is larger than found in most other samples, suggesting that the data may have been influenced by self-selection, in that men with larger erect penises may have been more likely to return measurement data to the research team. Of note, in our study, we relied on men's self-reported sexual orientation during a historical time in which more men openly identify as gay or bisexual. Kinsey and his team collected data on sexual behavior, not self-identified sexual orientation, and during a historical time in which men's same-sex behavior would have been more suppressed. Thus, direct and uncomplicated comparisons based on self-identified sexual orientation, or even sexual behavior with same and other-sex partners, between Kinsey's sample and our contemporary sample are not possible.

Although we present a range of erect penile dimensions from a large sample of men in the United States, it is important to note that a number of factors (e.g., partner health, relationship dynamics, body image, anxiety, mood, socioeconomic status, age and sexual experience) may influence patients' desire to change the size of

their penis. We believe that such factors should be taken into account when communicating with patients about their penile dimensions and sexual experiences. Just because a patient's erect penile length or girth may be on the smaller or larger end of the continuum does not mean that he may be a good candidate for medical procedures to alter the size of his penis.

### **Strengths**

This study had several strengths. Data were collected anonymously over the Internet which may have helped men feel more comfortable reporting sensitive data about their penile dimensions to researchers. As mentioned earlier, participants may have felt particularly motivated to report accurate data in order to obtain a condom that fit their erect penis. We also feel that our study was unlikely to self-select men with larger penis sizes, as men of all sizes (but perhaps particularly those at the smaller and larger ends of the continuum) may have been interested in enrolling in our study in order to try a condom fitted to their erect penis. This was also the first study, to our knowledge, to assess how men achieved the erection that they measured. While penile dimensions were not significantly different for most behaviors, oral stimulation of a man's penis resulted in reports of greater lengths and fantasy alone was associated with significantly smaller penile dimensions reported. Although we did not assess men's perceived sexual arousal during the measurement process, larger penile dimensions found among men who reported oral stimulation may reflect men's greater genital or subjective arousal during this particular activity. Alternatively, it may suggest that men with larger penis sizes are more likely to receive oral sex from their partner(s). That method of getting an erection speaks to a specific strength of the study. If penile dimensions vary based on the way that men achieve their erections, then it is possible that measurements that occur in a research lab by a researcher or clinicians may not represent the erection length that men may achieve when they are with a partner.

### **Limitations**

Our study also had several limitations. Perhaps, most importantly, we were limited by the standard size of the paper rulers used in the study. Study enrollment and data collection occurred online and men were asked to print the penile measurement tools (alternatively, if they did not have a printer or if they simply desired it, we offered to

mail hard copies of the penile measurements tools to them). The penile measurement tools were printed on letter sized paper and thus men with particularly long erect penises would have found the measurement ruler too small. We know of one man for whom this was the case (he self-reported an erect penile length of approximately 14 inches—equivalent to 35.6 cm), and he was not able to be included in the study as fitted condoms were not available in his size, but it is possible that there were others for whom the measurement tool precluded their participation. Given that other published studies of men's erect penile dimensions have identified few men who have a penis greater than 26 cm, we feel confident that there were likely few men who would have been excluded due to their larger penis size. Consequently, the mean length and circumference reported in our study would likely have remained unchanged or minimally changed, even with their inclusion. Also, our study mostly consisted of young men, men who were willing to use condoms during sexual activities, and men who were interested in trying a fitted condom. Therefore, only men who anticipated being sexually active with a partner during the study period were eligible to participate. It is possible that penis size may be related to men's opportunities for partnered sex. Future studies should continue to explore the relationship between penis size and sexual behavior. Our study consisted of a convenience sample of men who may have had larger or smaller erect penile dimensions than other men; however, the results are consistent enough with other studies that we feel such a risk is low. Also, we did not ask if men had attempted to alter the size of their penis through surgery, medications, exercises, or other means. We also did not assess participants' flaccid penile dimensions which may have implications on their body image as well as condom fit, particularly upon detumescence.

#### *Future Research*

It is reasonable to consider whether a generalizable reliability of such a measure of penile dimensions should be expected, given that different physical and psychological states and other variables across sexual scenarios could influence penile length and circumference during both measurement and subsequent condom use. Future research assessing penile dimensions should seek to engage men in studies that vary these internal and external variables in order to assess the expected variance in penile measures.

Numerous studies of penile dimensions have been conducted and various rationales have been presented for such studies (e.g., related to clinical and/or surgical interventions, to understand the potential effect of prenatal influences on sexual orientations and various bodily dimensions, to present data for a specific nationality of men). However, given the disproportionately high number of studies of penis size [1–11,20–24] to the relatively small number of studies of vaginal and/or vulvar dimensions (e.g., [25–33]), it is also perhaps the case that penile dimensions have simply captured more of the public's attention—as well as that of (mostly male) scientists who have published scientific research related to penile dimensions. Certainly it is easier to measure a penis than it is to measure the vagina and such ease of measurement may, in part, account for the differential number of reports (it does not account for the strikingly few studies of vulvar dimensions, however). Yet we would be remiss not to mention that a greater understanding of female genitals is warranted and that, given the consistency in findings related to penile dimensions, it is perhaps time to turn greater attention to the study and understanding of female genital dimensions in future research or other aspects of either male or female genitalia. Recent examples of the latter include a study that examined how penile and other nongenital bodily dimensions may interact to influence female perception of male attractiveness [34] and another that compared corpuscular receptors in both the human glans clitoridis and glans penis [35].

That said, knowledge of erect penile dimensions has value for several reasons. First, continued documentation of adult male bodily dimensions will remain important over time as human bodies continue to evolve. Knowing that, for example, about 83% of men have an erect penis length of 16 cm (6.3 inches) or less may provide reassurance to men who worry that their erect penis should be longer. Second, given the complexities of measuring vaginal size, erect penis measurements may provide some insights into vaginal capacity or “stretch” during penile–vaginal intercourse, particularly as species who copulate tend to have genitals that co-evolve to fit one another [36]. This does not mean that all women will be able to comfortably accept a man's penis of average dimensions into the vagina, but it does give some insights into the capacity and movement of the vagina. Third, knowledge of erect penile dimensions may provide helpful information to individuals who

design vaginal dilators for clinical application or sexual enhancement devices, such as vibrators or dildos. Further research might explore how men's penile dimensions are associated with their male genital self-image [37]. In addition, men on the smaller end of the spectrum, in terms of length and circumference, should not be forgotten. Condom manufacturers, in particular, should keep these men and their partners in mind when designing condoms that may fit their penis comfortably and remain on the penis throughout intercourse. Men in this study received condoms sized to the length and circumference dimensions of their erect penis and generally found fitted condoms to be comfortable and pleasurable to use [17,18].

### Conclusions

In this sample of 1,661 men who measured their erect penile length and circumference for the purposes of receiving a condom sized to fit their erect penis, we found a mean erect penile length of 14.15 cm and a mean erect penile circumference of 12.23 cm. Also, findings suggest that mode of getting an erection may influence erect penile dimensions.

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##### (c) Analysis and Interpretation of Data

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