



**Original Article**

# Knowledge, attitude and practices of sex and sexuality among young adults in Delhi-NCR

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**Abstract**

'Gender' as a category emerged in the 70s and 80s, challenging the common-sense perception according to which biological sex and gender are extensions of each other and that gender is a social construct and a basis of oppression of women. Studies reveal an increase in the visibility of women in all spheres. However, does this imply an acceptance, understanding, and internalisation of this assertion? Gender inequalities and oppression of women continue. There is a gap between theory and practice, between academic discourse and popular discourse on gender. This paper looks at this disparity. It enquires into the extent of awareness about the distinction between sex and gender among young adults and how this informs their sexual attitudes and behaviour. It is based on research done in Delhi-NCR on 480 respondents, 71.88% of whom were young women

and belonged to the 18–24 age range. However, only roughly 33% of respondents thought there was no connection between pornographic content and promiscuity, while both men and women (~47%) were unsure about the relationship between erotic content and promiscuity. Remarkably, only 18.5% of respondents thought that reading or viewing erotica could encourage promiscuity, and there was no correlation between this opinion and gender.

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## Introduction

Feminist scholarship has generated a vast body of knowledge, challenging popular assumptions about differences between men and women being naturally ordained.<sup>[1,2,3]</sup> In this perception, social destinies: social roles, psychological attributes, the entire personality and range of behaviour of males and females are perceived to be directly or indirectly determined by biological factors, which are invoked to legitimise the domination of men over women.

To counter this, feminists made a distinction between sex and gender - 'sex' denotes females and males determined by biological features such as chromosomes, sex organs and hormones, while 'gender' denotes women and men determined by socio-cultural processes of socialisation.<sup>[2]</sup> In popular perception, sex and gender are coextensive: a person of the female sex will automatically belong to the corresponding (feminine) gender and vice-versa, which is used not only to explain behavioural differences between women and men but also to form the basis of gender inequality.<sup>[4]</sup> The intention was to dismantle this belief in biological determinism and raise consciousness in order to liberate women. This paper asserts that there is a gap between theory and practice and between the academic and popular discourse on sex- gender relationship.

A vast body of literature exists on issues of sexual awareness and attitudes in low-and-middle-income countries (LMICs). In these studies, the focus is on the risky sexual behaviours of adolescents and young adults as a public health challenge as they impact the sexual and reproductive health of the youth later in their lives.<sup>[5]</sup> Risky sexual behaviours such as having multiple sexual partners, early sexual intercourse, and not using preventive measures such as condoms put them at risk of HIV and other reproductive tract infections such as herpes, gonorrhoea etc.<sup>[6]</sup> Surveys

conducted among adolescents in the age group 12-15 in 69 LMICs between 2003 and 2017 showed that the prevalence of sexual behaviours varies by country, region, gender and age group - the prevalence of sexual intercourse was highest in the Americas and lowest in the Western Pacific while the prevalence of having multiple sexual partners was highest in the Eastern Mediterranean and lowest in Western Pacific.<sup>[7]</sup>

However, most of these are studies of the influence of various parameters (education, sexual awareness, pornography, quality of life, socio-demographic characteristics-age, gender, marital status, income, family, smoking, and use of alcohol) on sexual behaviour and attitudes.<sup>[7]</sup> The focus of most studies is on finding correlations between them: the underlying concern being health hazards (HIV, STDs etc) of risky sexual behaviour among young adults.<sup>[8,9]</sup>

Most studies do not move beyond finding solutions for risky sexual behaviour and highlight the need for the generation of awareness regarding issues of sexual health. There is hardly any focus on if there is an understanding of the sex-gender distinction. Although the links between gender and sexuality have been rigorously theorised, there is little empirical work on beliefs about these connections in popular perception.

A large segment of the population is hardly aware of the sex-gender distinction or the idea of the social construction of gender and believes in the naturalised connection between biological sex and gender, which finds further expression in attitudes towards sex and sexuality. Our study attempts to engage with this gap between theory and practice. It seeks to understand the extent of awareness of this distinction in the popular discourse and its implications not only for sexual attitudes and behaviour but also for gender relations. Our study was undertaken in Delhi-NCR, within this framework, to assess- (a) the knowledge

and attitude (biological and social) of young adults towards sex and sexuality, (b) to find if there was a difference in the attitudes of females and males towards sex and sexuality, (c) the extent of awareness of the distinction between sex and gender, and (d) practices reflecting their sexual behaviour.

### Sample size and methodology

The study was conducted during the pandemic, i.e., February- December 2020. The focus group of the study was young adults in the age group of 18-24 as it is a vulnerable group concerning sexuality, and they were within our reach as they were majorly college students. We excluded participants below 18 years. A structured questionnaire was prepared as a Google form and was tested with 10 respondents before it was circulated. Data was collected from 486 respondents, excluding the test sample, using purposive sampling method. However, only 480 responses that were complete in all respects were considered for analysis. Participation in the study was purely voluntary and the participants' written consent was taken through the questionnaire.

### Data collection

The questionnaire was circulated through emails and social media platforms such as WhatsApp. The data was collected from young adults known to us directly, and we requested them to share the questionnaire with people known to them in the age group 18-24. Thus, the data was collected using purposive sampling method. The study was approved by the Centre for Research, Maitreyi College, University of Delhi, vide letter no. MT-494, dated 4th February, 2020.

### Statistical analysis

The values are presented as frequency and percentage. The Kolmogorov-Smirnov test showed that the data was non-parametric. Chi square ( $\chi^2$ ) 'goodness of fit' analysis was used

to compare responses of males and females. Correlation and regression analysis (Cramer's Phi) was performed to find association between responses and gender. A 'p' value of  $<0.05$  was considered statistically significant. The data was analysed using the statistical software IBM SPSS 25.

## Results

### Demography

The demographic profile of the respondents was constructed along the parameters of gender, education (both of the respondents and their parents), family structure, family annual income, religion and caste. (Table 1). The components of the demographic profile are not mere elements. They are crucial in that they directly or indirectly influence and shape individual beliefs, attitudes and practices. The mean age of the respondents was  $20.5 \pm 0.71$  years, and the majority (71.88%) were females. The respondents were mainly undergraduates and were from nuclear families. The parents of the majority of respondents were graduates and had a family annual income between INR 5-10 lakhs. Respondents were from across religions; however, a majority were Hindus (82.29%), and 77.92% of the respondents belonged to non-scheduled castes (Table 1).

The respondents of our study were primarily undergraduate students studying in various colleges of Delhi-NCR. They drew information about sex and sexuality from resources that are not very reliable, such as friends, social media, erotic fiction, etc., which makes them very vulnerable to harmful sexual practices. In our study sample of 480 individuals, the primary source of information regarding sex was social media (64.17%). However, a majority said that there was more than one source of such information, which included friends, easily available books, internet, and movies.

### Biological knowledge and beliefs

Table 2 represents answers to some of the

Table 1: Demographic characteristics of respondents (N=480)

	Frequency (%)		Frequency (%)
<b>Age group</b>		<b>Education of parents</b>	
18-20 years	319(66.46)	Below graduate	59(12.29)
21-24 years	161(33.54)	Graduate	281(58.54)
		Above graduate	140(29.17)
<b>Gender</b>		<b>Family structure</b>	
Male	135(28.13)	Nuclear	345(71.88)
Female	345(71.88)	Joint	135(28.13)
<b>Educational Qualification</b>		<b>Family annual income</b>	
Undergraduate	418(87.08)	Less than 1 lakhs	98(20.42)
Bachelor of Pharmacy	12(2.50)	1-4.9 lakhs	85(17.71)
Bachelor of Technology	50(10.42)	5-10 lakhs	161(33.54)
		More than 10 lakhs	136(28.33)
<b>Caste</b>		<b>Religion</b>	
General	286(59.58)	Hinduism	395(82.29)
OBC	88(18.33)	Islam	23(4.79)
SC	58(12.08)	Christianity	19(3.96)
Don't want to disclose	30(6.25)	Sikhism	9(1.88)
Don't know	18(3.75)	Budhism	2(0.42)
		Jainism	1(0.21)
		Do not follow any religion	31(6.46)

questions that were asked to assess their biological knowledge and beliefs about sex and sexual attitudes. A majority (64.58%) of the respondents were of the opinion that ‘sex’ is a way of seeing the difference between men and women, while only 17.92% viewed it as an act of sexual intercourse. However, more men (25.19%, n=135) than women (15.07%, n=345) viewed it as an act of sexual intercourse ( $\chi^2=6.604$ ,  $p=0.037$ ;  $\varphi_c=0.117$ ).

More than 85% of the respondents knew how sex was determined biologically in humans ( $\chi^2=0.663$ ,  $p=0.718$ ;  $\varphi_c=0.037$ ). Further, more than half (52.71%) of the respondents believed that the human body is merely a biological organism. It is the culture that gives it meaning ( $\chi^2=2.736$ ,  $p=0.603$ ;  $\varphi_c=0.075$ ). A majority (51.67%) believed that their parents and society determined their toys and clothes during adolescence, and only 10.63% of the respondents said that it was their own choice.

**Table 2: Biological knowledge and beliefs of respondents about sex and sexuality**

Questions	Responses	Total Frequency (%) (N=480)	Female Frequency (%) (n=345)	Male Frequency (%) (n=135)	$\chi^2$	$\varphi_c$
Do you know how sex is determined in humans?	Yes No Not sure	416 (85.95) 16(3.31) 48(9.92)	298(86.36) 13(3.77) 34(9.86)	118(87.41) 3(2.22) 14(10.37)	$\chi^2=0.663$ ; $p=0.718$	0.037
Do you know that the level of hormones in bodies of females fluctuate every month?	Yes No Not aware	364(75.83) 62(12.92) 54(11.25)	277(80.29) 37(10.72) 31(8.99)	87(64.44) 25(18.52) 23(17.04)	$\chi^2=$ 13.795; $p=0.001$	0.170
Do you know that you have hormones in your body that control your emotions?	Yes No Not sure	436(90.83) 15(3.13) 29(6.04)	323(93.62) 4(1.16) 18(5.22)	113(83.7) 11(8.15) 11(8.15)	$\chi^2=$ 15.131; $p=0.001$	0.178
Do you think that sexual desire is associated with changes in the hormonal levels in your body?	Yes No Not sure	392(81.67) 19(3.96) 69(14.38)	287(83.19) 12(3.48) 46(13.33)	105(77.78) 7(5.19) 23(17.04)	$\chi^2=$ 3.595; $p=0.166$	0.087
Do you know the names of hormones that influence your sexual desire? Like estradiol & testosterone	Yes No Not sure	316(65.83) 69(14.38) 95(19.79)	223(64.64) 53(15.36) 69(20)	93(68.89) 16(11.85) 26(19.26)	$\chi^2=$ 1.095; $p=0.578$	0.048
Do you know that if a man or woman undergoes surgery that removes their gonads or adrenal glands, their sexual desires go down?	Yes No Not sure	178(37.08) 164(34.17) 138(28.75)	131(37.97) 111(32.17) 103(29.86)	47(34.81) 53(39.26) 35(25.93)	$\chi^2=$ 1.815; $p=0.404$	0.061
Do you know that there are hormonal therapies for people with low sexual desire?	Yes No Not sure	244(50.83) 116(24.17) 120(25)	181(52.46) 80(23.19) 84(24.35)	63(46.67) 36(26.67) 36(26.67)	$\chi^2=$ 1.314; $p=0.518$	0.052

**Knowledge and attitudes towards sexual behavior**

Through questions included in Table 3, we tried to assess social awareness and attitude towards sex and sexuality and their sexual behaviour. The majority (~82%) respondents admitted that they were comfortable talking about their bodies. It was noteworthy that ~62% of respondents were comfortable talking to members of the opposite sex, and

further, males (65.19%) were more comfortable as compared to females (60.87%). However, approximately one-third of the respondents were not comfortable (37.92%, n=182), and the most common reason for doing so was fear of being misunderstood (35.92%) followed by lack of confidence (32.39%). Differences in socio-economic status (7.04%), fear of rejection (6.34%), and fear of elders (4.93%) accounted for a very small fraction.

**Table 3: Knowledge and attitude of respondents towards sexual behavior**

Questions	Responses	Total Frequency (%)	Female Frequency (%) (n=345)	Male Frequency (%) (n=135)	χ <sup>2</sup>	p <sub>c</sub>
<b>Social Knowledge and Attitude</b>						
At what age did you first get information about adolescent problems and sexual patterns?	9-12 yrs	87(18.13)	69(20)	18(13.33)	χ <sup>2</sup> = 11.995; p=0.528	0.158
	13-15 yrs	245(51.04)	173(50.14)	72(53.33)		
	16-18 yrs	132(27.50)	97(28.12)	35(25.93)		
	19-21 yrs	8(1.67)	4(1.16)	4(2.96)		
	Not sure	8(1.67)	2(0.58)	6(4.44)		
Are you aware of your sexuality/sexual orientation?	Yes	415(86.46)	303(87.83)	112(82.96)	χ <sup>2</sup> = 7.433; p=0.059	0.124
	No	48(10)	30(8.70)	18(13.33)		
	Maybe	17(3.54)	12(3.48)	5(3.7)		
Does peer pressure affect your attitude towards sex?	Yes	141(29.38)	93(26.96)	48(35.56)	χ <sup>2</sup> = 5.072; p=0.079	0.103
	No	228(47.50)	166(48.12)	62(45.93)		
	Maybe	111(23.13)	86(24.93)	25(18.52)		
Are you comfortable talking about your body?	Yes	397(82.71)	285(82.61)	112(82.96)	χ <sup>2</sup> = 0.879; p=0.348	0.043
	No	83(17.29)	60(17.39)	23(17.03)		
Are you comfortable interacting with the members of the opposite sex?	Yes	298(61.57)	210(60.87)	88(65.19)	χ <sup>2</sup> = 5.835; p=0.120	0.110
	No	50(10.31)	31(8.99)	19(14.07)		
	Sometimes	132(27.27)	104(30.14)	28(20.74)		
Are you interested in people of your own sex?	Yes	28(5.83)	23(6.67)	5(3.7)	χ <sup>2</sup> = 7.793; p=0.05	0.127
	No	397(82.71)	277(80.29)	120(88.89)		
	May be	28(5.83)	21(6.09)	7(5.19)		
	Don't know	27(5.63)	24(6.96)	3(2.22)		

Is the idea of pre marital sex acceptable?	Yes	215(44.79)	146(42.32)	69(51.11)	$\chi^2=6.578$ ; $p=0.037$	0.117
	No	84(17.50)	58(16.81)	26(19.26)		
	Depends on personal choice	181(37.71)	141(40.87)	40(29.63)		
Do you think pre marital sex is acceptable if the couple is engaged?	Yes	295(61.46)	208(60.29)	87(64.44)	$\chi^2=1.760$ ; $p=0.415$	0.061
	No	55(11.46)	40(11.59)	15(11.11)		
	May be	130(27.08)	97(28.12)	33(24.44)		
Do you believe in the concept of virginity?	Yes	169(35.21)	117(33.91)	52(38.52)	$\chi^2=1.008$ ; $p=0.604$	0.046
	No	223(46.46)	165(47.83)	58(42.96)		
	May be	88(18.33)	63(18.26)	25(18.52)		
Do you think virginity should be preserved till marriage?	Yes	59(12.29)	47(13.62)	12(8.89)	$\chi^2=9.493$ ; $p=0.023$	0.141
	No	231(48.13)	173(50.14)	58(42.96)		
	Not sure	118(24.58)	74(21.45)	44(32.59)		
	It's one's own choice/depends on couple	72(15.00)	51(14.78)	21(15.56)		
Can you talk about your sexual desires with others?	Yes	291(60.63)	197(57.1)	94(69.63)	$\chi^2=6.171$ ; $p=0.013$	0.113
	No	189(39.38)	148(42.9)	41(30.37)		
Are you comfortable talking about your sexual desires and problems to your parents?	Yes	81(16.88)	60(17.39)	21(15.56)	$\chi^2=11.126$ ; $p=0.011$	0.152
	No	213(44.38)	137(39.71)	76(56.3)		
	Sometimes	145(30.21)	116(33.62)	29(21.48)		
	Never	41 (8.54)	32(9.28)	9(6.67)		
<b>Attitude towards reproductive health</b>						
Do you think that birth control is the responsibility of the female?	Yes	116(24.17)	90(26.09)	26(19.26)	$\chi^2=2.116$ ; $p=0.146$	0.066
	No	364(75.83)	255(73.91)	109(80.74)		
Do you know about contraceptive methods for protection against unwanted pregnancies?	Yes	455(94.79)	325(94.2)	130(96.3)	$\chi^2=1.538$ ; $p=0.215$	0.057
	No	25(5.21)	20(5.8)	5(3.7)		
Do you think, just like sanitary pads, condoms should be made available at vending machines in public toilets?	Yes	312(65)	230(66.67)	82(60.74)	$\chi^2=3.609$ ; $p=0.165$	0.087
	No	67(13.96)	41(11.88)	26(19.26)		
	Maybe	101(21.04)	74(21.45)	27(20)		

**Practices and sexual behaviour**

In our study, majority of the respondents (~70%) were virgins (Table 4). Among those who were sexually active (n=132, i.e., 27.5%), majority became sexually active between 18-21 years of age (75.75%). Further, one-fourth of the respondents reported that they were sexually abused during their growing up years, and significantly more females (29.27%) were abused than males (14%) (p=0.001). When asked about the perpetrators, majority reported that they were strangers (47.5%), followed by relatives (close=17.5%;

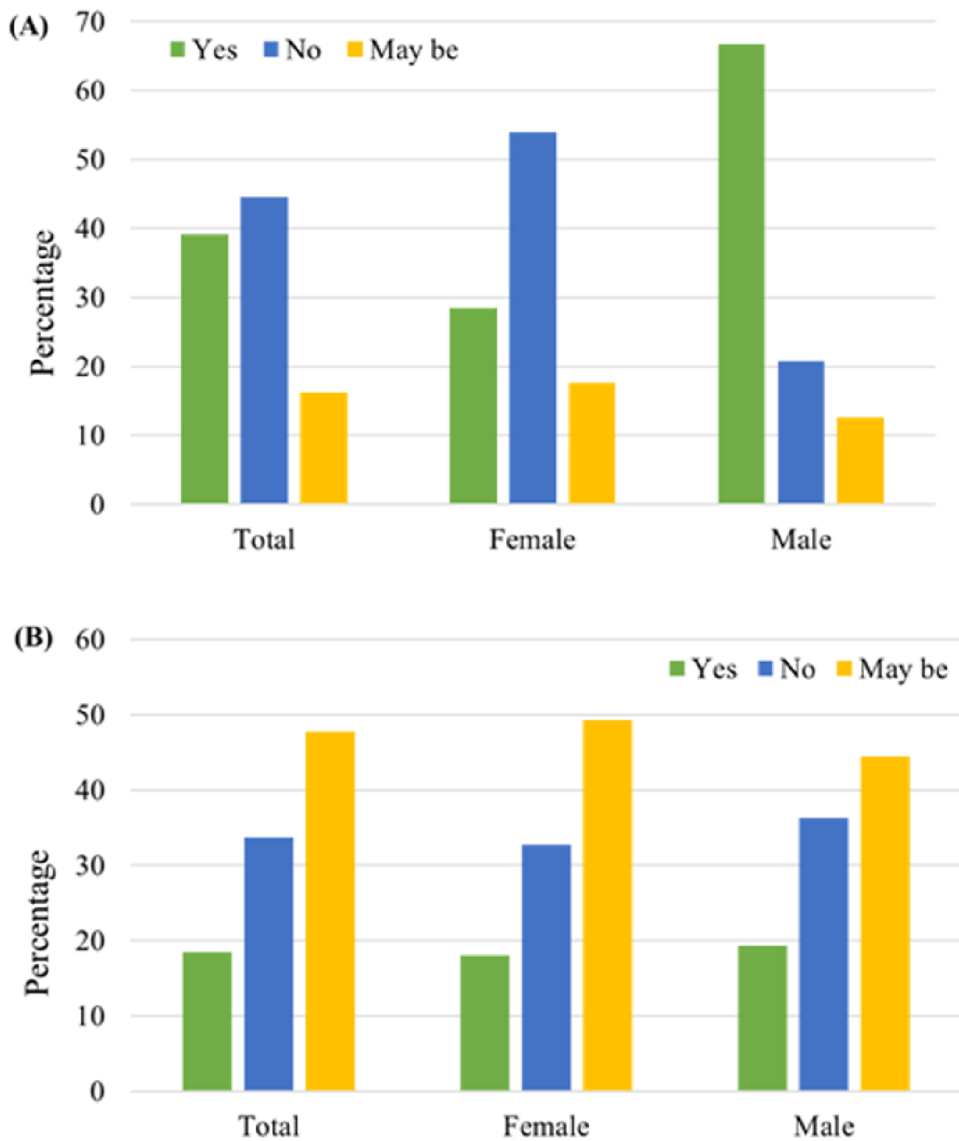
distant=15%) and friends (17.5). Others included neighbours (10%), doctors (1.67%), and teachers (1.67%). When asked if they had ever sexually abused someone, 1.73% of females admitted to it, while 8.89% of males did so. This observation was statistically very significant (p≤0.001) and strongly associated with gender (φc=0.172). Correlation (Pearson coefficient=0.144; p= 0.002) and regression (p=0.002; R2= 0.021) analysis showed that approximately 2% of those who were sexually abused had become sexual offenders themselves.

**Table 4: Practices reflecting sexual behavior**

Questions	Responses	Total Frequency (%) (N=480)	Female Frequency (%) (n=345)	Male Frequency (%) (n=135)	χ <sup>2</sup>	φc
What is the right age to start having sex?	16-19 years	32(6.67)	21(6.09)	11(8.15)	χ <sup>2</sup> = 9.283; p=0.098	0.139
	20 years and above	269(56.04)	184(53.33)	85(62.96)		
	After marriage	81(16.88)	63(18.26)	18(13.33)		
	Whenever the individual is ready	86(17.92)	69(20.00)	17(12.59)		
	Not sure	12(2.50)	8(2.32)	4(2.96)		
At what age did you have your first sexual intercourse?	Before 18 years	22(4.58)	12(3.48)	10(7.41)	χ <sup>2</sup> =10.309 ; p=0.036	0.147
	Between 18 - 21yrs	100(20.83)	67(19.42)	33(24.44)		
	After 21 years	10(2.08)	6(1.74)	4(2.96)		
	Don't want to disclose	10(2.08)	10 (2.90)	0		
	Still a virgin	338(70.42)	250(72.46)	88(65.19)		
Have you ever been sexually abused?	Yes	120 (25)	101 (29.27)	19 (14.07)	χ <sup>2</sup> =11.264 ; p=0.001	0.153
	No	360 (75)	244 (70.72)	116 (85.92)		
Have you ever sexually abused someone?	Yes	18 (3.75)	6 (1.73)	12 (8.88)	χ <sup>2</sup> =14.17; p=<0.001	0.172
	No	462 (96.25)	339 (98.26)	123 (91.11)		



Figure 1: Pornography and sexual attitude. (A) Do you watch or read pornography? (B) Do you think pornography or erotic literature leads to promiscuity in people?



Further, while 44.58% said that they did not read or watch pornographic content, 39.17% admitted to doing so. Interestingly, males (66.67%) were more prone to access pornographic content than females (28.40%) ( $\chi^2=60.199$ ,  $p<0.001$ ;  $\phi_c=0.354$ ) (Figure 1). However, a majority (47.7%) were not sure

whether accessing erotic content could be linked to promiscuity, and 33.75% did not think so. Only 18.5% believed that watching or reading erotic content can lead to promiscuity. This opinion cut across genders ( $\chi^2=1.028$ ,  $p=0.598$ ;  $\phi_c=0.046$ ).

## Discussion

The questions were designed to address three areas: one, biological knowledge and beliefs about the constitution of gender, whether it is determined biologically or by societal norms, two, knowledge and attitude towards sexual behaviour, and three, practices.

The majority of the respondents correlated the word 'sex' with a way of seeing the difference between men and women and not merely as an act of sexual intercourse, and a significantly ( $p=0.037$ ) higher number of men believed so as compared to women. This was moderately associated with gender ( $\varphi_c=0.117$ ). More than 85% of respondents were aware of how sex is determined in humans, and more than half of the respondents believed that the culture gives it the meaning, i.e., defines it as man/woman and gives it attributes as well as functions. This belief cuts across the genders and is substantiated by other studies highlighting the influence of social and cultural fabric on the development of gender-role attitudes from adolescence to adulthood.<sup>[10,11,12]</sup>

A significantly high majority ( $p=0.001$ ) believed that hormonal levels fluctuate every month in females ( $\varphi_c=0.170$ ) and that hormones control emotions ( $\varphi_c=0.178$ ). Both these observations were found to be strongly associated with gender, i.e. females were more aware as compared to males. The majority of the respondents (~81%) believed that sexual desire was associated with changes in levels of hormones, and more than 65% of respondents believed that hormones such as testosterone and estrogen influenced sexual desire. Interestingly, half of the respondents were aware that low sexual desire can be treated with hormonal therapies, but only about one-third (~37%) of the respondents were aware that the removal of gonads (by surgery) lowers sexual functions, including sexual desire. Sexual behaviour is regulated by basal circulating levels of androgens,

oestrogens, progesterones, and their metabolites,<sup>[13]</sup> and androgen deprivation therapy (ADT), where patients are deprived of androgens as a treatment regime, leads to a decline in ejaculation, a decline in attaining orgasm, and erectile dysfunction, leading to reduced libido and sexual desire.<sup>[14]</sup>

Parents play important roles in the selection of clothes or toys for their adolescent children, which might shape their sexual behaviour too. A study by Kollmayer et al.<sup>[15]</sup> in Austria reported that parental involvement shaped gender socialisation in children. Traditional parents often found cross-gender-typed toys less desirable as compared to egalitarian parents, who were more open and permitted better development of interests and behaviours in children. In our study, more than 50% of respondents believed that their parents and society determined their toys and clothes during adolescence, and this view also cut across the genders. Almost half of the respondents became aware of adolescent problems and sexual patterns between the age of 13-15 years (females= ~50%; males= ~53%). It is noteworthy that among all respondents, more females (98.26%) were aware of their adolescent problems by the age of 18 as compared to males (86.21%) ( $\chi^2=11.995; p=0.528$ ). This awareness was strongly associated with gender ( $\varphi_c=0.158$ ).

Often, puberty starts the age of sexual development in girls and boys, and they often fall victim to the 'teen syndrome' wherein teenagers undergo turbulent changes in their personalities, and they get this perception from their peers. However, in the age group 18-24, they might become a little 'stabilised' with respect to their sexuality and sexual behaviour. In our study, more than 85% of respondents were aware of their sexual orientation, and females were more aware than males ( $p=0.059$ ). Almost half of the sample population believed that their attitude towards sex was not influenced by peer pressure, however, males were more influenced by peer

pressure than females. The majority (~82%) were comfortable talking about their bodies, irrespective of their gender. More than 60% were comfortable talking to people of the opposite sex, while the rest either talked sometimes or avoided it completely. However, a significant number (37.92%, n=182) of respondents were not comfortable. 142 of them talked about reasons of discomfort, and the most noteworthy reasons were fear of being misunderstood and lack of confidence. More than 80% were not interested in people of the same sex.

The idea of pre-marital sex is changing in a metropolitan city like Delhi-NCR, unlike a decade earlier when it was considered taboo.<sup>[16]</sup> More than 55% of the respondents believed that the right age to have sex is after 20 years of age, and more males (62.96%) believed so than females (53.33%). The majority of the respondents (~70%) were virgins (females=72.46%; males=65.19%;  $p=0.036$ ), and there was a significantly strong association of sexual activity with gender ( $\varphi_c=0.147$ ). Among those who were sexually active, the majority became sexually active between 18-21 years of age (75.75%).

More males (51.11%) were open to the idea of pre-marital sex than females (42.32%), and this perception was statistically significant ( $p=0.037$ ) and had a moderate association with gender ( $\varphi_c=0.117$ ). There was a very low percentage (~17.50%) who believed that pre-marital sex is not acceptable, while the rest were comfortable with it, i.e., either they were in agreement (~45%) or believed that it was a personal choice (~38%). In other words, more than 80% of respondents accepted the idea of pre-marital sex and did not consider it as something 'bad' or 'immoral'. This observation was statistically significant and is an indication of the change in the perception of youth towards sex and sexual behaviour. Concurrent to this belief, a comparatively small percentage of females (18.26%) and males (13.33%) believed in after-marriage sex.

Further, more than 60% of respondents believed that it is all right to have sex if the couple is engaged. This change in the mindset reflects a change in their attitude towards virginity. While 35.21% believed in the concept of virginity, only 12.29% believed that virginity should be preserved till marriage. So, a significant ( $p=0.023$ ) majority believed that maintaining virginity till marriage was not necessary, and more females believed so than males. It showed a moderate association with females ( $\varphi_c=0.141$ ) and a sign of the changing social attitude. A similar study by Mutha et al.,<sup>[17]</sup> conducted in colleges in Mumbai, reported that 84% of boys and 72% of girls did not agree that virginity should be preserved till marriage. More respondents (~60%) were comfortable talking about sexual desires with others, and more males (69.93%) reported so than females (57.10%). However, a very low number of respondents (16.88%) confidently shared their sexual desires with their parents. Males were more hesitant in talking to parents than females. Both these were significant observations in our study ( $p=0.013$  and  $p=0.011$ , respectively) and were strongly associated with gender ( $\varphi_c=0.152$ ).

Reproductive health is the right of a person, irrespective of sex, but it is the woman who has to bear the consequences of irresponsible sexual behaviour. Hence, it is justifiable that both take equal responsibility for the same. We observed that 75.83% of respondents believed that birth control should not be the responsibility of females alone, and interestingly, more males (~80%) than females (~74%) believed so. However, active male participation in contraception and as responsibility bearers for birth control is still lacking in India.<sup>[18]</sup> A study by Singh et al.<sup>[19]</sup> on the use of contraceptives by married adolescents (15-19 years) from the data of the National Family Health Survey-4 (2015-16) reported that the rate of usage was only 10%, which is alarming. The condom vending machines minimise the embarrassment of contraceptive purchases from pharmacists. In

our study, although more than 94% of respondents knew about contraceptive methods, only 65% agreed that condoms should be made available to the general public through vending machines, just like sanitary pads. More females (66.67%) agreed with this than males (60.74%). However, these observations were not statistically significant and were weakly associated with gender. Consumers in Italy feel positive about using these machines, which has resulted in declining unplanned births, distinguishing Italy from other Western countries.<sup>[20]</sup>

One-fourth of the respondents reported that they were sexually abused during their growing up years, and significantly ( $p=0.001$ ) more females (29.27%) were abused than males (14%) ( $p=0.001$ ). The majority of the perpetrators were strangers (47.5%), followed by relatives (close=17.5% and distant=15%) and friends (17.5%). Others included neighbours (10%), doctors (1.67%), and teachers (1.67%). When asked if they had ever sexually abused someone, 1.73% of females and 8.89% of males admitted to it. This observation was statistically very significant ( $p=0.001$ ). There was a positive, significant, but weak correlation between 'been sexually abused' and 'sexually abusing someone' (Pearson coefficient=0.144;  $p=0.002$ ). The ANOVA results and regression analysis supported this observation and showed that approximately 2% of those who were sexually abused themselves resorted to sexually abusing others ( $p=0.002$ ;  $R^2=0.021$ ).

Exposure to pornographic content is said to be associated with several problems in sexual behaviour, such as masturbation, premarital sex, same-sex sexual relations, and promiscuity, and males often show higher interest and access to pornographic content than females.<sup>[21]</sup> Similar studies on pornography and sexual behaviour among university and college students have been done in several countries, such as Bangladesh<sup>[22]</sup>, U.S.<sup>[23]</sup>, and Scandinavia<sup>[24]</sup>. In our study, while

44.58% said that they did not read or watch pornographic content, 39.17% admitted to doing so. Males are more inclined to pornography as they show a more positive attitude towards it than females<sup>[21]</sup>, and the same was significantly evident in our study as well. Interestingly, in our study, a significantly higher ( $p<0.001$ ) number of males (66.67%) accessed pornographic content as compared to females (28.40%). This observation was very strongly associated with gender ( $\chi^2=0.354$ ), and one of the prominent reasons for this could be the online availability of pornographic content.<sup>[25]</sup> However, both males and females (~47%) were not sure about the association of erotic content with promiscuity, and only ~33% believed that there was no relationship between promiscuity and pornographic content. Surprisingly, only 18.5% believed that watching or reading erotic content could lead to promiscuity, and this opinion was very weakly associated with gender.

### Conclusion and scope for future research

The issue at hand is complex, and the limited engagement with the parameters used in this study is insufficient to give a comprehensive insight into this phenomenon. Nevertheless, they are certainly suggestive of the knowledge and attitude of young adults towards sex and sexuality. The level of knowledge about gender, sex and sexuality among young adults was either inadequate or lacking, which was evident from the percentage of responses, such as 'not sure', 'may be,' 'neutral', or no response at all. The responses revealed that the thinking about sexuality continues to be governed by a system of ideas that places different sexual acts in a "hierarchical system of sexual value," whereby some sex is treated as 'good, normal, natural, blessed and other sex is treated as 'bad, abnormal, unnatural, damned'. Good sex includes heterosexual, married, monogamous, procreative, non-commercial, in pairs, in a relationship, same generation, in private, no pornography, bodies

only, and vanilla. Bad sex includes all acts other than the ones described as good, normal, and natural i.e., homosexual, unmarried, promiscuous, non-procreative, commercial, alone, or in groups, casual, cross-generational, in public, pornography, with manufactured objects, and sadomasochistic.<sup>[26]</sup> There is an internalisation of this system of ideas of socially accepted natural sexual behaviour. Further, despite a huge body of literature and initiatives documenting and underlining the social construction of heterosexuality and homosexuality, the norm of heterosexuality as natural continues to prevail. Though some responses point to an inclination to not follow social norms and a permissive attitude, responses to practices reveal that these are subversions that only stretch the boundaries of the larger accepted system of thought but do not stretch them enough to break and redefine them.

### Strengths and limitations

Our findings provoke the necessity to reflect on a larger issue that has been at the heart of feminist engagement with the emancipation of women - challenging certain popular, biological determinist assumptions about differences between men and women, to point out that these are invoked to legitimise the subordination of women and are the basis of gender inequality. It highlights the need to go beyond the 'stated' to see the latent perception that perceives sex and gender as coextensive. This is crucial because this correlation is used to explain behavioral differences between women and men and justify gender inequality. The present study can be regarded as the first step towards gaining a deeper understanding of the issue.

The scope of the study was limited. It focused on a small segment of the urban population, the young adults, who were majorly pursuing an undergraduate degree and the majority of whom were women. For this reason, the study does not attempt to make any pan Indian

generalisations. However, the study does raise an important question about the awareness of the distinction between biological sex and socially constructed gender. It revealed that even though there was an awareness of this distinction, it could not clearly show how much of it translated into transformative social action. Our study was constrained by limitations of time and space. So, apart from online surveys, qualitative study methods, such as personal interviews, face-to-face interactions and case studies, could have been used to enhance the quality of research.

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