

A Comparative Study of Sex-Related Myths among Emerging Adults in Urban and Rural Areas of Navsari

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Abstract

This study examines the sexual orientation of adolescents in Navsari, focusing on the impact of residential area (rural vs urban) and gender (female/male) on their development. A sample of 100 participants equally divided between urban and rural settings was assessed using the Sex myth Scale developed by Dr. Pramod Kumar. The following statistical techniques were used in this study: mean, standard deviation, and t-test. The findings indicate that Rural participants showed more than double the level of sex-related myths compared to urban participants. sex-related myths are similarly prevalent among both males and females in the sample. Cultural and educational exposure could vary slightly, but the effect is not strong enough. Overall, the results highlight the urgent need for accessible, culturally sensitive sexual health education in rural areas, along with broader awareness efforts that address the shared misconceptions affecting young people regardless of gender.

This study contributes to understanding the complexities surrounding sexual education.

❖ **Keywords: - sex myths, Emerging Adults, Residential Area, Gender.**

1) Introduction: -

In India, sex education is not uniformly implemented across schools and colleges. While some states include it in their curriculum, several major states such as Gujarat, Maharashtra, Madhya Pradesh, and Chhattisgarh have resisted or banned formal sex education programs due to cultural and political opposition (Shiradkar & Mahajan, 2022; “Adolescent sex education in India: Current perspectives,” 2016). Even in the states where sex education is introduced, it is not compulsory, which leads to inconsistency and limited coverage.

Children and adolescents also do not receive structured knowledge about sex and reproductive health from their families, as these topics are often considered taboo. Parents frequently avoid open conversations due to shame and embarrassment, leaving youth without proper guidance (Shiradkar & Mahajan, 2022). As a result, adolescents turn to peers and the internet for information, which often exposes them to misinformation, myths, and unscientific beliefs about sex (Parmar & Singh, 2021).

Research in Gujarat and other regions shows that adolescents have widespread misconceptions about sexual health, and lack of accurate information contributes to risky behaviours and stigma (Parmar & Singh, 2021; Parmar et al., 2019). Studies from Odisha and Gujarat demonstrate that when accurate sex education interventions are introduced, students’ knowledge, attitudes, and practices significantly improve (Alekhya et al., 2023; Parmar & Singh, 2021). This indicates that the current gap is not only due to absence of programs but also due to lack of comprehensive, compulsory, and scientifically accurate sex education.

Sexual myths and misconceptions continue to persist in Indian society, shaping individuals’ understanding of sex and impacting sexual health outcomes. Myths about male and female sex often originate from cultural, religious, and societal norms, creating a gap between scientific knowledge and social beliefs (Bhaargavi, 2023; Mukherjee et al., 2019).

Studies indicate that both genders hold sexual misconceptions, but the content differs. For example, male students may believe that men are always sexually ready and that masturbation weakens health, while female students may hold myths about menstruation, fertility, and sexual consent (North, 2011; Bhaargavi, 2023). Such misconceptions not only affect personal well-being but also influence interpersonal relationships and attitudes toward reproductive health.

Comprehensive sex education has been identified as an effective method to dispel myths and provide scientifically accurate knowledge. However, in India, sex education is often inadequate or absent, particularly in rural regions, limiting opportunities for adolescents to access reliable information (Chakraborty, 2013).

1.1) Popular Sex Myths in India: -

1. Men are always ready for sex Many people in India believe that men have inherently higher sexual desire and are always willing to engage in sex. Lack of sexual desire is often seen as a flaw in masculinity (Bhaargavi et al., 2023).
2. Only gay men get HIV A prevalent myth is that HIV mainly affects gay men, due to assumptions about promiscuity, whereas heterosexual men are perceived as low-risk (Mukherjee et al., 2019).
3. Using a condom guarantees no pregnancy Some men believe condom use eliminates all risk of pregnancy, despite documented condom failure rates. Misunderstandings sometimes lead to conflicts in relationships (Ismail, 2015).
4. Premature ejaculation is shameful Premature ejaculation is stigmatized, causing men to avoid seeking help and leading to anxiety and relationship issues (Bhaargavi et al., 2023).
5. Erection always means sexual arousal There is a common misconception that an erection always indicates sexual desire, ignoring physiological or spontaneous causes (Mukherjee et al., 2019).
6. Masturbation weakens men Cultural and religious beliefs in India often label masturbation as harmful, despite scientific evidence showing no negative impact on health (Bhaargavi et al., 2023).
7. Withdrawal method prevents pregnancy Many men believe that the withdrawal method is a safe contraceptive technique, despite high failure rates (Parmar & Singh, 2021).
8. Infertility is always a woman's problem Society often blames women for infertility, even though male factors contribute to almost 50% of infertility cases (Mukherjee et al., 2019).
9. Men do not experience sexual pain There is a belief that sexual pain affects only women; male sexual pain is underrecognized and often ignored (Bhaargavi et al., 2023).

10. Homosexuality is a mental disorder Many people in India incorrectly believe that homosexuality is pathological and reversible with guidance or counselling (Ismail, 2015).
11. Sex education is a western/urban concept Sex education is often viewed as unnecessary in rural or traditional settings, leading to lack of formal education in most schools (Parmar & Singh, 2021).
12. Recognizing adolescent sexuality implies acceptance of adolescent sex
Adults often perceive acknowledging adolescent sexual development as promoting sexual activity, contributing to silence and misinformation (Mukherjee et al., 2019).

1.2) Objective of the study: -

1. To compare sexual myths among rural and urban youth of Navsari city.
2. To compare sexual myths among young women and young men of Navsari city.

1.3) Hypotheses of the study: -

1. There will be significant differences in the sexual myths of youth in Navsari based on their residential area (rural vs. urban).
2. There will be significant differences in the sexual myths of youth in Navsari based on their gender type (female vs. male).

2) Literature Review

2.1. Sexual Myths in India

1. Prevalence of Sexual Myths Sexual myths are widespread among Indian youth due to cultural taboos, inadequate sex education, and lack of open communication with families (Ismail, 2015). Both males and females hold false beliefs about sexuality, which affect their knowledge, attitudes, and sexual behaviours (Mukherjee et al., 2019).
2. Gender Differences Studies indicate that males and females hold different types of sexual misconceptions. Males are more likely to believe myths related to sexual strength and performance, such as “men are always ready for sex” or “masturbation weakens men.” Females often believe myths related to fertility and purity, such as “infertility is a woman’s fault” or “menstruating women should avoid sexual contact” (Bhaargavi et al., 2023). These beliefs reinforce traditional gender roles in Indian society.

3. **Impact on Health and Behaviour** Sexual myths contribute to misinformation about contraception, sexual pleasure, and STIs. Misconceptions, like the belief that withdrawal prevents pregnancy or that HIV only affects certain groups, increase the risk of unsafe sexual practices and psychological distress (Mukherjee et al., 2019).
4. **Role of Education** Educational interventions have been shown to reduce myths and improve knowledge. For example, structured reproductive health programs in Gujarat improved students' understanding and reduced misconceptions, highlighting the importance of integrating sex education into school curricula (Parmar & Singh, 2021).

2.2. Sexual Myths in Other Countries

- 1) **Global Prevalence** Sexual myths are not unique to India; they exist worldwide, often rooted in cultural, religious, and societal taboos (Alford, 2020). Misconceptions about masturbation, fertility, and sexual health are common in parts of Africa, Asia, and the Middle East (Ahmed et al., 2022).
- 2) **United States and Europe** In the United States, adolescents hold myths such as “you can’t get pregnant the first time you have sex” or “oral sex is risk-free” (Santelli et al., 2017). European countries like Italy and Poland, influenced by traditional religious values, also report persistent sexual misconceptions among youth (Wolfe & Kollar, 2019).
- 3) **African Countries** In Sub-Saharan Africa, gender-specific sexual myths are common. Men are expected to demonstrate sexual dominance, while women are often blamed for reproductive issues. In Nigeria, myths include beliefs that women should not initiate sex and that contraception reduces fertility (Ojo et al., 2021).
- 4) **Middle Eastern Countries** In Middle Eastern countries, cultural and religious norms restrict sexual discussions. A study in Jordan found widespread beliefs that masturbation is harmful and premarital sex causes permanent physical changes in women (Alomari et al., 2020). Such myths create stigma and reduce access to accurate sexual-health education.
- 5) **Effect of Comprehensive Sex Education** Evidence from Western and Scandinavian countries demonstrates that early and comprehensive sex education reduces sexual myths and promotes healthier attitudes. In Sweden and the Netherlands, adolescents show more accurate knowledge about contraception, STIs, and sexual consent compared to peers in countries without formal sex education programs (UNESCO, 2018).

3) Research Gap

Although several studies in India have examined sex-related myths among adolescents and adults, most of the existing research is based on broad national or state-level data and rarely focuses on specific communities. Very limited evidence is available from Navsari, and almost no studies directly compare urban and rural emerging adults using the same research framework. Moreover, emerging adults (18–25 years), who are at a critical stage of sexual learning and identity formation, are often grouped with older adults, reducing the ability to understand their unique information needs and challenges. There is also insufficient investigation into how factors such as education, media exposure, and social environment shape the acceptance and transmission of these myths within local contexts. This gap highlights the need for a focused, community-level study in Navsari to systematically compare the prevalence, patterns, and predictors of sex-related myths among urban and rural emerging adults.

3) Method and procedure

3.1 sample

The Study was Conducted on a total of 100 young individuals (Male=50 and Female=50) selected from Navsari city, in which 50 from rural area and 50 from urban area divided into two groups. (Village 25 girls 25 boys) (City 25 girls 25 boys) In which both the variables of area and gender were compared. Random sampling method was used for sample selection.

3.2 Tools

The sex myth scale design by Pramod Kumar was used. this scale has good reliability and validity tools for measuring various sex myths items, including decision making, problem solving, critical thinking, communications and the interpersonal relationships. the test is a widely used in research and has been published by the National psychological corporation Agra. it provides a comprehensive measure of sex myths allowing for a comparative analysis based on the variable of interest.

3.3 data collection method

Data collection was carried out in a structured manner the researcher personally visited rural and urban areas of Navsari. To among sex myth girls and boys were given clear instructions before the taste administration and their response were recorded in a controlled environment to ensure accuracy and consistency of the data.

4. statistical Analysis

In the present study analysis and the interpreted action of data following statistical techniques mean, standard deviation and t test were used.

❖ Analysis and Interpretation of Data

HO: - 01. There will be significant differences in the sexual myths of youth in Navsari based on their residential area (rural vs. urban).

Table: - 1

significant differences in the sexual myths of youth in Navsari based on their residential area (rural vs. urban).

Residential area	N	Mean	Median	SD	SE
urban	50	14.5	15.0	3.30	0.467
rural	50	28.3	28.0	5.30	0.750

Test	t	d f	p	Mean Difference	SE Difference	Effect Size	Interpretation
Student's t	-15.6	98	< .001	-13.8	0.884	d=-3.12	Significant
Welch's t	-15.6	82	< .001	-13.8	0.884	d=-3.12	Significant
Mann-Whitney U	3.00		< .001	-13.0		r=0.998	Significant

▪ **Result: -**

An independent samples t-test was conducted to compare belief in sex-related myths between rural and urban participants. Rural participants ($M = 28.30$, $SD = 5.30$) scored significantly higher than urban participants ($M = 14.50$, $SD = 3.30$). Due to unequal variances, Welch's t-test was used. The results indicated a highly significant difference, $t(82) = -15.60$, $p < .001$, with a mean difference of -13.80 ($SE = 0.88$). The effect size was extremely large (Cohen's $d = -3.12$).

The Shapiro–Wilk test showed no violation of normality ($p = .111$), but Levene's test indicated unequal variances ($p = .001$). A Mann–Whitney U test further confirmed the significant difference, $U = 3.00$, $p < .001$, with a rank-biserial correlation of 0.998. These results demonstrate that rural participants hold substantially stronger beliefs in sex-related myths than urban participants.

▪ **Interpretation: Rural vs. Urban Differences**

The objective of this analysis was to determine whether individuals from rural and urban locations differ in their belief in sex-related myths. An independent samples t-test was conducted with location (rural vs. urban) as the grouping variable. The descriptive statistics revealed a substantial difference between the two groups: urban participants reported considerably lower levels of sex-related myths ($M = 14.5$, $SD = 3.30$) compared to rural participants ($M = 28.3$, $SD = 5.30$). The difference in mean scores is large (Mean Difference = -13.8), immediately suggesting a meaningful gap between the two groups.

The inferential analysis strongly supports this observation. The t-test result, $t(82) = -15.6$, $p < .001$ (Welch's correction applied due to unequal variances), indicates a highly significant difference between rural and urban respondents. This large effect is further reflected in the effect size, Cohen's $d = -3.12$, which is well above the threshold for a “large” effect, indicating an exceptionally strong difference in myth endorsement between locations.

Because Levene's test was significant ($p = .001$), showing unequal variances between groups, both the Welch's correction and a non-parametric Mann–Whitney U test were reviewed. The Mann–Whitney $U = 3.00$, $p < .001$, along with a rank-biserial correlation of 0.998, reconfirmed the robustness of the effect. All statistical approaches converge on the same conclusion: location plays a major role in shaping belief in sex-related myths.

The interpretation of these results is clear—participants from rural areas hold significantly stronger beliefs in sex-related myths than their urban counterparts. The magnitude of this difference suggests that access to information, education, and exposure to sexual health knowledge may vastly differ across geographical locations. Urban environments typically provide greater access to formal and informal sources of sexual education, such as internet resources, health services, school-based programs, and open discussion spaces. In contrast, rural areas may be influenced by cultural norms, conservative values, restricted communication about sexuality, and limited educational exposure, which collectively contribute to the persistence of sexual myths.

HO: - 02. There will be significant differences in the sexual myths of youth in Navsari based on their gender type (female vs. male).

Table: - 2

significant differences in the sexual myths of youth in Navsari based on their gender type (female vs. male).

Gender	N	Mean	Median	SD	SE
Male	50	20.2	19.0	7.80	1.10
Female	50	22.6	21.0	8.50	1.20

Test	t	d f	p	Mean Difference	SE Difference	Interpretation
Student's t	-1.4 3	98	0.15 5	-2.34	1.63	Not significant
Welch's t	-1.4 3	97. 3	0.15 5			Not significant
Mann–Whitney U	102 7		0.12 4			Not significant

▪ **Result: -**

An independent samples t-test was conducted to compare belief in sex-related myths between males and females.

The results showed no significant difference between males ($M = 20.20$, $SD = 7.80$) and females ($M = 22.60$, $SD = 8.50$); $t(98) = -1.43$, $p = .155$, 95% CI $[-5.57, 0.89]$.

The assumption of normality was slightly violated ($p = .029$), but homogeneity of variances was met ($p = .175$).

The nonparametric Mann–Whitney U test also confirmed the nonsignificant difference, $U = 1027$, $p = .124$.

These results suggest that belief in sex-related myths does not significantly differ between males and females.

▪ **Interpretation Male vs. Female Differences**

The purpose of this analysis was to examine whether there is a significant difference between males and females in their belief in sex-related myths. An independent samples t-test was conducted using gender (male vs. female) as the grouping variable. The descriptive results indicated that females ($M = 22.60$, $SD = 8.50$) scored slightly higher on sex-related myths compared to males ($M = 20.20$, $SD = 7.80$). Although this descriptive trend suggests a marginal difference, the inferential statistics demonstrate that this difference is not statistically significant.

The t-test result, $t(98) = -1.43$, $p = .155$, indicates that males and females do not differ meaningfully in their endorsement of sex-related myths. The mean difference between groups (-2.34) fails to reach statistical significance, suggesting that the observed difference is likely due to random variation rather than a true gender-based pattern. Because the normality assumption was slightly violated (Shapiro–Wilk $p = .029$), a non-parametric Mann–Whitney U test was also conducted. The Mann–Whitney $U = 1027$, $p = .124$, further confirmed the absence of a significant difference. Thus, both parametric and non-parametric tests converge on the same conclusion.

The lack of gender differences in myth endorsement carries important implications. First, interventions aiming to reduce sex-related myths should be designed to target all individuals, rather than focusing more heavily on one gender. Sexual health awareness

programs, school-based education, and community outreach efforts should therefore adopt a gender-inclusive approach, ensuring that accurate information reaches both males and females effectively. Second, the similarity across genders indicates that the broader sociocultural environment—such as limited sex education, restricted access to reliable information, or prevailing societal taboos—may be a stronger influence on misconceptions than gender identity itself.

▪ Discussion

The findings of the present study reveal a clear and compelling pattern in the beliefs surrounding sex-related myths among emerging adults, with location emerging as a far stronger influence than gender. Participants from rural areas demonstrated a dramatically higher endorsement of sex-related myths compared to those from urban areas, as reflected in the substantial mean difference and extremely large effect size.

This indicates that individuals from rural environments are far more likely to hold misconceptions related to sexuality, which may be attributed to limited access to accurate sexual health education, deeply rooted cultural taboos, restricted exposure to scientific information, and greater reliance on traditional or hearsay-based knowledge systems. In contrast, urban participants appear to benefit from more open communication spaces, better digital access, and school or community-based educational opportunities, which collectively contribute to reduced reliance on myths.

On the other hand, the results showed no significant difference between males and females in their levels of belief in sex-related myths, even though females scored slightly higher on average. This lack of a statistically meaningful gender difference suggests that both males and females are equally shaped by their sociocultural environment, and that gender does not play a determining role in myth endorsement. Rather, both groups may be exposed to similar educational gaps, cultural restrictions, and social narratives related to sexuality.

When these two results are viewed together, it becomes evident that geographical context—particularly the rural environment—exerts a far more powerful influence on sexual myths than gender does. This implies that sexual misconceptions are largely rooted in cultural and environmental factors rather than biological or gender-related ones. Consequently, interventions aimed at reducing sex-related myths must prioritize rural communities, where

misinformation is significantly more prevalent, while also ensuring that programs are gender-inclusive since both males and females display comparable levels of myth acceptance.

Overall, the results highlight the urgent need for accessible, culturally sensitive sexual health education in rural areas, along with broader awareness efforts that address the shared misconceptions affecting young people regardless of gender.

5) Findings

1. These findings align with research that emphasizes the role of sociocultural context, educational resources, and exposure to accurate information in shaping beliefs about sexuality. Rural communities often face barriers such as lower-quality educational infrastructure, limited healthcare access, and pervasive social stigma surrounding discussions of sex. As a result, misinformation can circulate more freely and remain unchallenged. Urban communities tend to be more progressive and media-rich, promoting more scientific awareness and reducing reliance on traditional myths.
2. sex-related myths are similarly prevalent among both males and females in the sample. Contrary to common assumptions that gender differences may influence knowledge and attitudes toward sexual topics, the present results indicate that misconceptions about sex may be shaped more by cultural, educational, or societal influences that affect both genders equally, rather than by gender-specific factors. This aligns with literature suggesting that sex education gaps, taboos around discussing sexuality, and exposure to misinformation can impact individuals regardless of their gender (cite relevant research in final report).

6) Implications

The implications of this study are substantial. Sexual health interventions need to prioritize rural populations, where misconceptions are significantly more prevalent. Targeted awareness campaigns, culturally sensitive sex education programs, and community-based outreach initiatives may be essential in bridging this knowledge gap. The exceptionally large effect size indicates not just a statistical difference, but a meaningful disparity with real-world implications for health, attitudes, and behaviour.

- 1) The use of self-report measures may introduce social desirability bias, particularly on sensitive topics. Additionally, while the rural-urban divide was clearly operationalized, the factors underlying these differences—such as education level, socioeconomic status, and

cultural norms—were not examined in this dataset but may have contributed to the observed pattern.

- 2) Finally, while the results provide valuable insights, some limitations must be acknowledged. The sample may not fully represent the diversity of gender identities or educational backgrounds, and self-report measures may be influenced by social desirability or comfort levels when responding to sensitive topics. Future research could explore whether other variables—such as age, education level, urban/rural location, or exposure to sexual health programs—play a more substantial role in shaping beliefs about sex.

7) Conclusion

1. In conclusion, the current analysis demonstrates a strong and statistically significant difference between rural and urban participants in their belief in sex-related myths, with rural individuals scoring considerably higher. These findings underscore the urgent need for targeted sexual health education and myth-busting interventions in rural areas to promote accurate knowledge and healthier attitudes.
2. The present study indicates that males and females demonstrate comparable levels of belief in sex-related myths, with no statistically significant difference between the groups. These findings emphasize the need for holistic and inclusive sexual education strategies that address misconceptions across all genders.

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