

# Love Attitude and Sleep Quality among Individuals in Relationship

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**Abstract:** *The following study aims to understand whether there is a relationship between love attitudes and sleep quality. Differentiation of love attitude and sleep quality for males and females was also measured for the Indian population. The love attitude of the participants was measured with the help of love attitude scale by Hendrick and Hendrick and the sleep quality was measured with the help of Pittsburgh Sleep Quality Index. A total of 149 participants were there, wherein 70 were males and 79 females. The findings suggest that there is a weak positive correlation between love attitude and sleep quality. It was also found that there is no significant difference in the sleep quality and love attitude of males and females.*

**Keywords:** sleep quality, love attitude, gender differences, love styles

## 1. Introduction

The following research study aims to study two variables; love attitude and sleep quality. The important focal point of the research is whether or not having a particular type of attitude will affect the quality of sleep of an individual who is married and living together with their partner. Sleep quality is defined as an individual's self - satisfaction with all aspects of the sleep experience. Sleep quality has four attributes: sleep efficiency, sleep latency, sleep duration, and wake after sleep onset. (Nelson et al., 2021) American psychological association defines love as a complex emotion involving strong feelings of affection and tenderness for the love object, pleasurable sensations in his or her presence, devotion to his or her well - being, and sensitivity to his or her reactions to oneself. (APA Dictionary of Psychology, n. d. - b)

The concept of Love attitude here had been derived from the colour wheel theory of love by John Alan Lee. The attitudes here are towards ones relationships. The colour wheel theory of love describes how every individual has a particular attitude towards love and the manifestation of that love. Lee here forged a classification of several different types of approaches to love. With the help of interview procedure and complex data reduction techniques, he proposed a typology of love styles that formed a circle. He identified 3 primary styles of love, 3 secondary and 9 tertiary styles of love. Eros Ludus Storge are the primary styles of love while Pragma Mania and Agape are secondary styles of love.

Eros refers to passionate and romantic love, emphasizing strong emotional and physical connections between partners. It involves seeking early sexual adventure and being sensitive to criticism, often represented by the color red. Ludus refers to a playful and adventurous love style where partners engage in fun activities and games together, potentially leading to disloyalty and sex addiction, often associated with the color blue. Storge represents familial love rooted in friendship and shared interests, characterized

by a sense of responsibility, self - esteem, and limited sexual desire until commitment, often associated with the color yellow. Mania is a love style characterized by obsession, possessiveness, and anxiety, where individuals seek to maintain high self - esteem and love their partner intensely, often associated with the color purple. Agape is a selfless and altruistic love style characterized by giving without expecting anything in return, often associated with emotional maturity, concern for one's partner, and the potential for being taken advantage of, represented by the color orange. Pragma is a practical and goal - oriented love style where individuals seek partners based on compatibility and shared values, aiming to achieve common goals, although the risk of perceiving a partner as a burden exists. (J. D. Lee, 1977)

To bridge the gap that is there in the research regarding this variable – most studies utilize only love as a variable in measuring sleep quality. I would like to understand how ones attitude in terms of love (the type of emotion, behaviour and perception they have based on the theory of color wheel theory of love) will affect their satisfaction with the sleep quality. A lot of studies have mentioned that love is a physiological response and not just a psychological or emotional phenomenon.

## 2. Literature Survey

Research on the typology of styles of love by John Alan Lee provides insights into the different ways individuals experience and express love. Lee categorizes love into primary styles, such as Eros and Ludus, and secondary styles, which are combinations of the primary styles. These styles are influenced by personal and social factors, and they can vary across different relationships. Lee's work emphasizes that love styles are not fixed and can change based on the specific dynamics of a relationship. The analogy of colors helps to illustrate the different combinations and characteristics of **love styles**. (J. D. Lee, 1977)

Studies exploring the relationship between love and sleep shed light on how romantic experiences affect sleep quality. Research suggests that higher positive affect and within-day felt love variability are associated with better overall sleep quality. (Dickens et al., 2021) Bed sharing appears to have more subjective sleep-related benefits for women compared to men. (Elsej et al., 2019) Additionally, gender plays a significant role in shaping attitudes towards sexuality and love, with men generally being more permissive and less instrumental in their sexual attitudes. (Hendrick & Hendrick, 1995) The eros love style is more prevalent among individuals currently involved in intimate relationships, while the mania love style is more common among those who base their responses on past experiences. (Meskó et al., 2021)

Some studies also focus on the evolutionary perspective of love and sleep in terms of mating and nocturnal wakefulness. Research by Bode and Kuula explored the association between romantic love and sleep variations from an evolutionary perspective. The study suggested that shorter sleep onset latency, shorter sleep duration, fewer wakefulness after sleep onset, and better sleep quality could serve survival or reproductive functions. It also highlighted the historical practice of concealed mating, which may have influenced the way we respond to feelings of love (Bode & Kuula, 2021).

Overall, these studies highlight the intricate connection between love and sleep, demonstrating that emotional states associated with romantic relationships can influence sleep quality. The findings suggest that satisfaction in relationships, contentment, and liking for partners contribute to better sleep quality. However, individual differences and contextual factors also play a role, and the impact of love on sleep patterns can vary among different populations and circumstances. It is important to consider the multidimensional nature of love and the diverse factors that influence its expression and effects on sleep.

### Problem Definition

The aim of this research study was to understand whether there is a relationship between love attitude and sleep quality among individuals who are in a relationship, i. e., married or in a live-in relationship. The aim here was to understand whether love attitude in particular can have any relationship with the quality of sleep a person has.

### 3. Method

The research study aims to investigate the relationship between sleep quality and love attitudes among individuals in relationships. Sleep quality refers to the amount of sleep obtained, disturbances experienced, and overall satisfaction with sleep. Love attitudes, on the other hand, pertain to how individuals perceive and express love within their relationships, categorized based on similarities in emotional and behavioural characteristics. This study is a correlational research study and the aim was to establish a relationship between the two variables. Demographic variables, including gender and age, were measured to examine potential influences on the relationship between love attitudes and sleep quality.

The study was focused on individuals in relationships, i. e., those who were married or in a live-in relationship for a minimum of two months and had been sharing the same sleeping space for 2 months. The population under study was drawn from the states of Gujarat and Maharashtra and ranged between the ages of 23 - 30 years. Inclusion criteria included individuals aged between 23 and 40 years, belonging to Gujarat or Maharashtra, and being in a relationship. Exclusion criteria comprised non-binary gender identities, mental health diagnoses, and recent breakup or separation within the last 3 - 4 months.

The sample, consisting of 149 individuals, was obtained using convenience sampling, considering time constraints and geographical proximity. It included 70 males and 79 females who met the specified age and relationship criteria.

### 4. Tools for the Study

#### Pittsburgh sleep quality index

The Pittsburgh Sleep Quality Index (PSQI) is a self-report questionnaire developed by Daniel J. Buysse and collaborators. It consists of 19 items divided into seven subcategories, including subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication, and daytime dysfunction. The questionnaire also includes five additional questions rated by the respondent's roommate or bed partner. The reliability of the PSQI was assessed using Cronbach's alpha, which yielded a value of 0.736, indicating good internal consistency. Validity analyses showed high correlations between the PSQI and sleep log data, indicating its effectiveness in evaluating overall sleep quality in the population.

#### Love attitude scale

The Love Attitude Scale, developed by Clyde and Susan Hendrick from the University of Texas, measures individuals' attitudes toward love. It combines attitudes toward their current, recent, or hypothetical partner with attitudes about love in general. The scale consists of six subscales, each with seven items, representing different love styles: EROS (passionate love), LUDUS (game-playing love), STORGE (friendship love), PRAGMA (practical love), MANIA (possessive, dependent love), and AGAPE (altruistic love). Participants respond to each item using a 5-point scale ranging from strongly agree to strongly disagree. Test-retest reliability values indicated coefficients of 0.70 or above for all scales, demonstrating the scale's consistency over time.

In terms of research ethics, participants were provided with an informed consent form and were made aware of their rights to withdraw from the study at any point without facing any consequences. They were given the researchers' contact details for any inquiries or concerns. Confidentiality regarding the collected data was maintained throughout the study.

The statistical techniques employed in the study included correlation analysis to examine the relationship between love attitude and sleep quality variables. Additionally, an independent sample t-test was conducted to assess whether

gender had any impact on love style or sleep quality. These techniques were used to analyze the data and draw conclusions from the study.

5. Result and Discussion

Table 1: Shows the demographic details

Demographics		Frequency
Gender	Female	53.02%
	Male	46.98%
Age	23 - 30	53.02%
	31 - 40	46.98%
Relationship status	Married	87.92%
	Live - in relationship	12.08%
Who do you live with?	With in - laws	40.27%
	Only you and your partner	34.58%
	Along with your partner and children	22.15%
Do you have children?	Yes	50.34%
	No	49.66%
Was it love marriage or arranged marriage?	Love marriage	60.40%
	Arrange marriage	39.60%

Table 1 shows the demographic details and of the participants. The study included participation of females is 53.02% and males is 46.979%. The participants were divided into two age groups; 23 - 30 years and 31 - 40 years. The first age group contributes to 53.02% and the second group contributes to 46.979%. The study includes participants from two categories of relationships; married participants are 87.919% and live - in participants are 12.08%. Among the total participants, 40.268% live with their in - laws, 34.583% lived only with their partner and 22.147% lived with their partner and children. Out of the total participants, 50.335% of them had children, while 49.664% did not have children. The participants also had to provide information on how they got married.60.402% got married through arranged marriage, while the other 39.597% had a love marriage.

Table 2: Shows the descriptive statistics and correlation coefficients of Love Attitude and Sleep Quality

	N	M	SD	t	p
Sleep Quality	98.55	16.747	143	.243**	.003
	25.39	7.248	143	-	

Table 2 shows the descriptive statistics and Spearman's correlation coefficient for love attitude and sleep quality. The correlation coefficient between sleep quality and love attitude is.243 (p>0.01), this suggests a positive correlation between the variables r (141) = .243, p =.003. This suggests that the correlation coefficient is statistically significant. However, the correlation coefficient is relatively low, indicating that the relationship is weak.

Table 3: Shows descriptive statistics and coefficient correlation of love styles and sleep quality

	M	SD	Coefficient Correlation	p value
Eros	13.33	4.934	-.036**	.684
Ludus	24.023	6.609	-.130**	.146
Storge	15.141	4.743	-.047**	.598
Pragma	15.622	5.673	-.100**	.264
Mania	16.685	6.196	.091**	.308
Agape	14.015	5.42	.087**	.329

Note: \*n=127, \*\*p<0.01

The Spearman's rho correlation coefficient was computed to assess the relationship between the sleep quality and the different styles of love. Contrary to one of the research study by Agus et al. (2021) pragma was the most prevalent style of love, the above table also shows that ludus is the most prevalent love style among the sample population.

The correlation coefficient between sleep quality and eros is -.036 (p>0.05), this indicates a weak negative correlation between the variables, r (125) = -.036, p =.684. This suggests that the correlation coefficient is not statistically significant.

The correlation coefficient between sleep quality and ludus is -.130 (p>0.05), this indicates a weak negative correlation between the variables, r (125) = -.130, p =.146. This suggests that the correlation coefficient is not statistically significant.

The correlation coefficient between sleep quality and storge is -.047 (p>0.05), this indicates a weak negative correlation between the variables, r (125) = -.047, p =.598. This suggests that the correlation coefficient is not statistically significant.

The correlation coefficient between sleep quality and pragma is -.100 (p>0.05), this indicates a weak negative correlation between the variables, r (125) = -.100, p =.264. This suggests that the correlation coefficient is not statistically significant.

The correlation coefficient between sleep quality and mania is.091 (p>0.05), this indicates a weak positive correlation between the variables, r (125) =.091, p =.308. This suggests that the correlation coefficient is not statistically significant.

The correlation coefficient between sleep quality and agape is.087 (p>0.05), this indicates a weak positive correlation between the variables, r (125) =.087, p =.329. This suggests that the correlation coefficient is not statistically significant.

Table 4: Shows the difference in sleep quality of males and females

	Gender	N	M	SD	t	p
Sleep Quality	Male	65	26.15	7.498	1.149	.252
	Female	78	24.76	7.018		

An independent - sample t - test was conducted to determine whether there is a difference in sleep quality of the males and females. The results indicate a not significant difference between male (M=26.15, SD=7.498) and female (M=24.6, SD=7.018), [t (141) = 1.149, p =.252>.05]. The 95% confidence interval of the difference between means ranged from [1.006 to 3.801] and did not indicate a difference between the means of the sample. Consequently, we fail to reject the null hypothesis that there is no significant difference between the sleep quality of males and females.

Table 5: Shows the difference in love attitude of males and females

	Gender	N	M	SD	t	p
Love Attitude	Male	65	96.62	18.326	-1.261	0.210
	Female	78	100.15	15.243		

Table 5 shows how an independent - samples t - test was conducted to determine whether there is a difference in love attitude of the males and females. The results indicate a not significant difference between male ( $M=96.62$ ,  $SD=18.326$ ) and female ( $M=100.15$ ,  $SD=15.243$ ), [ $t(141) = -1.261$ ,  $p = .210 > .05$ ]. The 95% confidence interval of the difference between means ranged from  $[-9.087$  to  $2.010]$  and did not indicate a difference between the means of the sample. Consequently, we fail to reject the null hypothesis that there is no significant difference between the love style of males and females.

## 6. Conclusion

The aim of this study was to understand whether there is any relationship between the love attitudes and sleep quality of individuals who are in relationship. The correlation coefficient between love attitude and sleep quality is .243 which shows that it is a weak positive correlation. The correlation coefficient between sleep quality and ludus is  $-.130$  ( $p > .05$ ), this indicates a weak negative correlation. The correlation coefficient between sleep quality and storge is  $-.047$  ( $p > .05$ ), this indicates a weak negative correlation. The correlation coefficient between sleep quality and pragma is  $-.100$  ( $p > .05$ ), this indicates a weak negative correlation. The correlation coefficient between sleep quality and mania is .091 ( $p > .05$ ), this indicates a weak positive correlation. The correlation coefficient between sleep quality and agape is .087 ( $p > .05$ ), this indicates a weak positive correlation. The null hypothesis was accepted; i. e., there is no significant difference in the sleep quality of males and females. The null hypothesis was accepted; i. e., there is no significant difference in the love style of males and females.

Relationship counselling and therapy: The findings could have implications for relationship counselling and therapy, as therapists might focus on fostering positive love attitudes to improve clients' sleep and overall health. As patients dealing in relationship issues can really benefit from understanding their love style and how to function with it.

Sleep related issues: If the study uncovers a link between love attitudes and sleep quality, it might pave the way for new treatments for sleep disorders. For instance, addressing love - related issues could be integrated into sleep therapy programs, leading to a more comprehensive approach to treatment.

Stress management: Positive love attitudes might be associated with lower levels of stress, which can in turn improve sleep quality. Understanding this relationship could lead to the development of stress management techniques that focus on love and relationships.

There could be a few improvements which can be considered for the future research. There is some self - reporting bias which was experienced at times as some people felt it was too weird and personal to share such details irrespective of confidentiality. Because of the above reason the sample population was limited as not a lot of people were comfortable disclosing their responses. In a whole view the quality of sleep can be affected by a lot of factors which might not be considered here due to the

limitations of the questionnaire. The sample is not enough to be able to generalize it for all cultures across India due to its demographic constraints.

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