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LIFESTYLES OF HEALTH AND SUSTAINABILITY (LOHAS): DIFFERENTIATING RELATIONSHIPS IN REGARD TO STREAM OF STUDY

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Abstract

This study investigates the coefficient of correlation among various aspects of Lifestyles of Health and Sustainability (LOHAS) and health-related variables for undergraduate students in arts and science streams. The research aims to compare the differences in these correlations between the two groups and formulates a series of hypotheses to test these differences. The study employs a Descriptive Survey method with a sample of 151 undergraduate students from the Purulia district of West Bengal, selected through random sampling. Data is collected using Choi and Feinberg's 'Lifestyles of Health and Sustainability Scale', and the coefficient of correlation is calculated for various pairs of variables. The study also evaluates the difference in correlation between dichotomous variables like stream (arts-science). The major findings indicate that arts and science undergraduate students exhibit remarkably similar correlations between LOHAS and health-related variables. These correlations remain consistent and do not significantly differ between the two groups. The relationships between health-related variables, such as physical fitness, mental health, emotional health, spiritual health, environmentalism, and social consciousness, also show comparability for both arts and science students. This suggests that there are no substantial distinctions in how these aspects of well-being and sustainability are perceived or interrelated among the two student populations.

Keywords: Fisher Z- transformation, LOHAS, Physical fitness, Mental health, Emotional health, Spiritual health, Environmentalism, Social consciousness

Introduction

The correlation coefficient serves as a quantitative measure of the degree of association between these related variables (Sutradhar et al., 2023). Essentially, it quantifies the mutual relationship between the two variables. Moreover, the coefficient of correlation provides a means to gauge the extent to which one variable's values can be predicted based on the known values of another variable (Nzeneri, 2010). The correlation coefficient spans from -1 to +1, where a value of +1 signifies an absolute positive correlation, signifying a strong association between high scores on one variable and high scores on the other. Conversely, a value of -1 signifies a complete negative correlation, indicating a strong connection between high scores on one variable and low scores on the other, and vice versa. Meanwhile, a coefficient of zero (0) denotes the absence of any correlation or association. The Pearson Product Moment

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Correlation and Spearman Rank Order Correlation represent statistical tools utilized to assess the strength and direction of the connection or association between two variables, typically known as bivariate analysis. These methods help ascertain whether the two variables exhibit a direct, inverse, or no relationship. In this context, the terms 'independent' and 'dependent' variables are not applicable. Instead, the focus is on establishing a relationship, wherein changes in one variable correspond to changes in the other. On the flip side, bivariate distributions encompass two variables that allow for the exploration of interrelations between them (Oblior & Amadi, 2018). In modern era, study using coefficient of correlation is very common. Different studies have been found that has used it, such as, Das, Gayen and Sen (2023), Gayen and Mahato (2023), Gayen, Sen and Adhikari (2023), Mohanta et al. (2023), Sen et al. (2023) etc.

Literature Review

Hotelling (1953) conducted a study and found that in 1921, Fisher introduced a highly valuable mathematical function and proceeded to derive formulas for its moments. These formulas shed light on the remarkable property that this function's distribution converges towards normality at an astonishing rate. Moreover, the variance of this distribution exhibits a near-total independence from the correlation within the population, offering valuable insights into the statistical behaviour of z .

In the work of Dunn & Clark (1969), we found a scenario where the sample derives from a multivariate normal distribution. We explore a variety of robust testing procedures designed for large samples, all rooted in the transformative power of Fisher's z -transformation.

The article of Dunn & Clark (1971) some tests performed on samples drawn from a multivariate normal distribution was found. It explores the determination of significance levels and statistical power for small sample sizes, employing Monte Carlo methods for assessing the performance of both Hotelling's test and Williams's modification of Hotelling's test, which are grounded in Fisher's z transformation.

Saha (2012) conducted a study on Creativity in relation to Socio-economic Status in Secondary School Students in West Bengal and found that Creativity correlates with Socio-Economic Status (SES), favouring high-SES children. High-SES kids exhibit greater creativity compared to low-SES kids. No gender difference is found in creativity based on Socio-Economic Status.

Saha (2013) conducted a study on creativity in relation to environmental awareness in Birbhum district and found that Environmental awareness is strongly linked to creativity. There is no gender-based difference in environmental awareness among students. Male and female students exhibit similar levels of creativity.

Karmakar et al. (2016) conducted a study on Intelligence in relation to height and weight among secondary school students and found that a significant difference in intelligence between male and female students. Therefore, we recommend equalizing the education system for both genders, offering diversified curricula for high-achieving students, implementing strategies to boost low IQ scores, and monitoring the relationships between IQ, weight, and height. Providing nutritious food and a supportive environment can enhance their physical and intellectual development.

Oblior & Amadi (2018) In this work, we found the exploration of the significance test for Pearson's correlation coefficient, commonly known as Pearson's (r). We conducted a comprehensive analysis, comparing various techniques for assessing the significance of Pearson's correlation, including the utilization of the t -distribution, Fisher's z -transformation, and the Statistical Package for Social Sciences (SPSS).

Mondal et al. (2018) conducted a study on Internet Affinity in relation to Personality and Gender and found that internet affinity poses a health risk to postgraduate students, impacting their social, functional,

physical, and psychological well-being. To address this growing issue, preventive interventions should be considered, particularly for neurotic students, by offering alternative activities to gradually reduce internet addiction.

Wonu, Victor-Edema, & Ndimele (2021) This article presented an extensive investigation that connected the application of t-distribution, z-transformation, and Statistical Package for Social Sciences (SPSS) techniques in the assessment of correlation coefficient significance, unveiling rich insights into their interplay.

Gayen & Sen (2021) conducted a study on anxiety, depression and stress among postgraduate students and found that the study explored the link between anxiety, depression, and stress in postgraduate students at Sidho-Kanho-Birsha University, Purulia. It revealed significant correlations between anxiety and depression, except for male students. The ongoing pandemic has heightened these issues, but we hope for a swift return to normal learning conditions.

Kar & Saha (2021a) conducted a study on leadership style and emotional intelligence of undergraduate students and found that a strong link between emotional intelligence and leadership style in undergraduate students, with high, average, and low emotional intelligence all significantly affecting leadership style.

Kar & Saha (2021b) conducted a study on Leadership style and Adjustment Ability among Undergraduate Students and found that a significant link between adjustment ability and leadership style. Notably, even when categorizing adjustment ability as High, Average, and Low, leadership style remained significantly correlated with students from these levels. This suggests that adjustment ability directly impacts undergraduate students' leadership styles. More adaptable students tend to lead more effectively as leadership performance relies on teamwork and psychological adjustment with others.

Gayen & Sen (2021) conducted a study on anxiety, depression and stress among postgraduate students and found that significant relationships between anxiety and depression among female students, stress and depression in the education department, and anxiety and depression in the 2nd and 4th semester students. No other significant relationships were detected among other aspects.

Sen et al. (2021a) conducted a study on general self-efficacy and specific self-efficacy of postgraduate students and the study reveals a significant disparity in General Self-efficacy between male and female students, while department and semester of study exhibit no noteworthy distinctions. As for Specific Self-efficacy, there are no significant differences observed in terms of gender, department, or semester among students

Sen et al. (2021b) conducted a study on depression, anxiety and stress of postgraduate students and found that the findings indicate that postgraduate students' levels of depression, anxiety, and stress do not significantly vary based on gender, department, or semester. Overall, all students share a common and disheartening state.

Sutradhar & Sen (2022a) conducted a study on effect of different dimensions of emotional maturity on academic achievement of B.Ed. trainees and found that a significant difference in emotional maturity, particularly in the dimensions of emotional progression and independence, among B.Ed. trainees in relation to their academic achievement.

Sutradhar & Sen (2022b) conducted a study on emotional maturity and study habits of B.Ed. trainees and the study revealed a strong link between emotional maturity and study habits among B.Ed. trainees. Specifically, it found this connection in female, private institution, government-aided institution, and rural B.Ed. trainees. However, there was no significant correlation in male or urban category B.Ed. trainees.

Mahato, Gayen & Mahato (2023a) conducted a study on self-efficacy and m-learning of undergraduate students of Purulia district of West Bengal and found no connection between self-efficacy and m-learning among undergraduate students in Purulia, West Bengal. Gender and location did not significantly influence self-efficacy and m-learning; both male and female, as well as rural and urban students, exhibited similar abilities in the region.

Mahato, Gayen & Mahato (2023b) conducted a study on academic resilience and internet addiction of undergraduate students of Purulia district of West Bengal and shows internet addiction does not significantly impact the academic resilience of undergraduate students in Purulia district, West Bengal.

Mahato, Gayen & Mahato (2023c) conducted a study on Cognitive Failure and Internet Addiction of Higher Secondary Students of Purulia District of West Bengal and found that the internet has transformed human civilization, leading to increased internet addiction, especially among the younger generation. The study found a significant link between internet addiction and cognitive failure, with no gender, location, or background differences.

Mahato & Sen (2023) conducted a study on Contexts Knowledge (CK1), technological pedagogical content knowledge (TPCK) and attitude towards creative teaching for pre-service trainee teachers and found that Context Knowledge (CK1) plays a crucial role in the TPACK-Math Scale, closely connected to TPCK.

Adhikari, Mahato & Sen (2023) conducted a study on anxiety, depression, stress, general self-efficacy and specific self-efficacy and the result indicates that relationships between variables differ for arts and science students. Arts students show a positive connection between anxiety and depression, while stress isn't significantly linked to either.

Sutradhar et al. (2023) conducted a study on self-efficacy, depression, anxiety and stress of university students and found that the paper uncovers three distinct groups of students and compares five dependent variables (general self-efficacy, specific self-efficacy, depression, anxiety, and stress) using Mahalanobis Distance. The results show that the dynamics of these variables do not significantly differ across various sets of independent variables.

Das (2023) This study examines three distinct student dichotomous groupings. The following seven dependent variables are compared: social consciousness, environmentalism, mental health, emotional well-being, physical fitness, and spiritual health (LOHAS). Mahalanobis Distance to assess their differences in terms of dynamics. The factors under investigation did not exhibit any significant changes based on gender, residence or stream.

Mahato, Sen & Adhikari (2023) conducted a study of DASS-21 and the self-efficacy scale on post-graduate students and found that the link between gender (male and female) and factors like anxiety, depression, stress, general self-efficacy, and specific self-efficacy using the DASS-21 and self-efficacy scale in post-graduate students. The findings reveal a significant connection between these variables in post-graduate students.

Studies like Saha et al., (2021), Saha (2021) and Khatun et al., (2022) reflect on the fact that Yoga procures significant impact on recovering health issues.

Sen, Pal & Adhikari (2023) conducted a study on Comparison among self-efficacy, depression, anxiety and stress of postgraduate students and found that This study examines three student groups using Mahalanobis Distance to compare the dynamics of five dependent variables. These variables include general self-efficacy, specific self-efficacy, depression, anxiety, and stress. The results show no significant differences in their dynamics across the different groups.

The relationship between two variables may or may not be significant for different groups of dichotomous variables. If we only consider the relationship between two variables and found that both are significant (or insignificant), we cannot measure the difference in level of association between two variables for a particular dichotomous variable. Let us consider an example: take X and Y as two variable and calculate correlation between X and Y for two variables say Arts and science. It is found that correlation between X and Y significant for both Arts and science. Now the question arises, “Is there any differences (significant) in level of association between X and Y with respect to Stream (Arts and science)?” To test the difference in level of association Fisher Z- transformation is applicable for the present study.

Objective

To conduct the research, the following objective has been carefully considered:

1. To compare the significant difference between coefficient of correlation with regard to stream of undergraduate students when pairwise correlations are considered for the variables LOHAS, physical fitness, mental health, emotional health, spiritual health, environmentalism, and social consciousness.

Hypotheses

In pursuit of the aforementioned objective, we formulate the following hypotheses:

H₀₁: There is no significant difference between arts and science students with respect to correlations between the variables LOHAS and Physical Fitness.

H₀₂: There is no significant difference between arts and science students with respect to correlations between the variables LOHAS and Mental Health.

H₀₃: There is no significant difference between arts and science students with respect to correlations between the variables LOHAS and Emotional Health.

H₀₄: There is no significant difference between arts and science students with respect to correlations between the variables LOHAS and spiritual Health.

H₀₅: There is no significant difference between arts and science students with respect to correlations between the variables LOHAS and Environmentalism.

H₀₆: There is no significant difference between arts and science students with respect to correlations between the variables LOHAS and Social Consciousness.

H₀₇: There is no significant difference between arts and science students with respect to correlations between the variables Physical Fitness and Mental Health.

H₀₈: There is no significant difference between arts and science students with respect to correlations between the variables Physical Fitness and Emotional Health.

H₀₉: There is no significant difference between arts and science students with respect to correlations between the variables Physical Fitness and Spiritual Health.

H₀₁₀: There is no significant difference between arts and science students with respect to correlations between the variables Physical Fitness and Environmentalism.

H₀₁₁: There is no significant difference between arts and science students with respect to correlations between the variables Physical Fitness and Social Consciousness.

H₀₁₂: There is no significant difference between arts and science students with respect to correlations between the variables Mental Health and Emotional Health.

H₀₁₃: There is no significant difference between arts and science students with respect to correlations between the variables Mental Health and Spiritual Health.

H₀₁₄: There is no significant difference between arts and science students with respect to correlations between the variables Mental Health and Environmentalism.

H₀₁₅: There is no significant difference between arts and science students with respect to correlations between the variables Mental Health and Social Consciousness.

H₀₁₆: There is no significant difference between arts and science students with respect to correlations between the variables Emotional Health and Spiritual Health.

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H017: There is no significant difference between arts and science students with respect to correlations between the variables Emotional Health and Environmentalism.

H018: There is no significant difference between arts and science students with respect to correlations between the variables Emotional Health and Social Consciousness.

H019: There is no significant difference between arts and science students with respect to correlations between the variables Spiritual Health and Environmentalism.

H020: There is no significant difference between arts and science students with respect to correlations between the variables Spiritual Health and Social Consciousness.

H021: There is no significant difference between arts and science students with respect to correlations between the variables Environmentalism and Social Consciousness.

Methodology of the study

- a. Method:** The Descriptive Survey method was utilized in this study.
- b. Population:** The study encompasses all undergraduate students currently pursuing their education in colleges within the Purulia district of West Bengal.
- c. Sample and Sampling Technique:** Through a random sampling technique, 151 undergraduate students have been selected.
- d. Tool used:** Choi and Feinberg’s (2021) ‘Lifestyles of Health and Sustainability Scale’ served as the instrument for gathering data from a cohort of undergraduate students.
- e. Statistical measure:** Coefficient of correlation between different variables like LOHAS, Physical fitness, Mental health, Emotional health, Spiritual health, Environmentalism, Social Consciousness are calculated for every possible pair.

Difference in coefficient of correlation between dichotomous variable Stream (arts -science) is calculated by applying following formula:

$$Z_{r_{12}} = \frac{1}{2} \text{Ln} \left(\frac{1+r_{12}}{1-r_{12}} \right) \dots\dots\dots (1)$$

Where r_{12} be the coefficient of correlation between variable 1 and variable 2,

$Z_{r_{12}}$ be the Fisher z-transformation.

Similarly,

$$Z_{r_{34}} = \frac{1}{2} \text{Ln} \left(\frac{1+r_{34}}{1-r_{34}} \right) \dots\dots\dots (2)$$

Where r_{34} be the coefficient of correlation between variable 3 and variable 4,

$Z_{r_{34}}$ be the Fisher z-transformation.

Standard error of the difference may be defined as

$$SE_D = \sqrt{\frac{1}{N_1-3} + \frac{1}{N_2-3}} \dots\dots\dots(3)$$

Where N_1 and N_2 are the sample size for variables (1, 2) and variables (3, 4) respectively.

Test statistics z is defined by

$$z = \frac{Z_{r_{12}} - Z_{r_{34}}}{SE_D} \dots\dots\dots (4).$$

If, $-1.96 < z < +1.96$ difference is not significant at .05 level of significance.
 Otherwise, difference is significant.
 If, $-2.58 < z < +2.58$ difference is not significant at .01 level of significance.
 Otherwise, difference is significant.

Result and Discussion

Variables	r₁₂ (Arts)	r₃₄ (Science)	Z_{r₁₂}	Z_{r₃₄}	N₁	N₂	SED	Z
LOHAS & Physical Fitness	0.687	0.488	0.842252	0.533432	120	31	0.210384	1.4679
LOHAS & Mental Health	0.735	0.594	0.939516	0.683824	120	31	0.210384	1.2154
LOHAS & Emotional Health	0.692	0.522	0.851783	0.579085	120	31	0.210384	1.2962
LOHAS & Spiritual Health	0.643	0.561	0.763272	0.634291	120	31	0.210384	0.6131
LOHAS & Environmentalism	0.902	0.82	1.482847	1.156817	120	31	0.210384	1.5497
LOHAS & Social Consciousness	0.726	0.679	0.920217	0.827256	120	31	0.210384	0.4419

Table 1: Correlation of Coefficient with Z-score between LOHAS and its components

From table 1, it is found that Z-score is 1.4679 which shows insignificant difference between arts and science undergraduate students with respect to correlations between the variable LOHAS and Physical Fitness. So, the null hypothesis (H₀₁) “There is no significant difference between arts and science students with respect to correlations between the variables LOHAS and Physical Fitness” is accepted. Therefore, the relationship between LOHAS and Physical Fitness does not differ significantly between arts and science students. So, association between LOHAS and Physical Fitness similar for Arts and science undergraduate students.

The findings from Table 1 reveal a Z-score of 1.2154, indicating an insignificant difference between arts and science undergraduate students concerning the correlation between LOHAS and Mental Health. Consequently, we accept the null hypothesis (H₀₂) that there is no significant difference between arts and science students in the relationship between LOHAS and Mental Health, suggesting a comparable association for both groups.

From the data in Table 1, it is evident that the Z-score of 1.2962 signifies an insignificant difference between arts and science undergraduate students in the correlation between LOHAS and Emotional Health. Therefore, we accept the null hypothesis (H₀₃) that there is no significant difference between arts and science students in the relationship between LOHAS and Emotional Health, implying a similar association for both groups.

The information in Table 1 reveals a Z-score of 0.6131, indicating an insignificant difference between arts and science undergraduate students regarding the correlation between LOHAS and Spiritual Health. Thus, we accept the null hypothesis (H₀₄) asserting that there is no significant difference between arts and science students in the relationship between LOHAS and Spiritual Health, pointing to a similar association for both groups.

Based on the data in Table 1, the Z-score of 1.5497 suggests an insignificant difference between arts and science undergraduate students in the correlation between LOHAS and Environmentalism. Therefore, we accept the null hypothesis (H_{05}) that there is no significant difference between arts and science students in the relationship between LOHAS and Environmentalism, indicating a similar association for both groups.

The data in Table 1 indicates a Z-score of 0.4419, signifying an insignificant difference between arts and science undergraduate students in the correlation between LOHAS and Social Consciousness. As a result, we accept the null hypothesis (H_{06}) stating that there is no significant difference between arts and science students in the relationship between LOHAS and Social Consciousness, suggesting a comparable association for both groups.

Variables	r ₁₂ (Arts)	r ₃₄ (Science)	Z _{r₁₂}	Z _{r₃₄}	N ₁	N ₂	SE _D	Z
Physical Fitness & Mental Health	0.55	0.211	0.618381	0.214218	120	31	0.210384	1.9211
Physical Fitness & Emotional Health	0.387	0.041	0.408267	0.041023	120	31	0.210384	1.7456
Physical Fitness & Spiritual Health	0.254	-0.132	0.259684	-0.13277	120	31	0.210384	1.8654
Physical Fitness & Environmentalism	0.44	0.42	0.472231	0.447692	120	31	0.210384	0.1166
Physical Fitness & Social Consciousness	0.318	0.082	0.329421	0.082185	120	31	0.210384	1.1752

Table 2: Correlation of Coefficient with Z-score between the variables of Physical Fitness and other variables

Table 2 reveals a Z-score of 1.9211, indicating an insignificant disparity in the correlations between Physical Fitness and Mental Health among undergraduate arts and science students. As a result, we accept the null hypothesis (H_{07}) that there is no significant difference in these correlations. Thus, the association between Physical Fitness and Mental Health remains consistent for both arts and science undergraduates.

Examining Table 2, we find a Z-score of 1.7456, which suggests no significant difference in the associations between Physical Fitness and Emotional Health for arts and science undergraduate students. Consequently, we accept the null hypothesis (H_{08}), indicating the similarity in these correlations. Hence, the link between Physical Fitness and Emotional Health remains consistent among arts and science undergraduates.

In Table 2, the Z-score is 1.8654, reflecting an insignificant discrepancy in the correlations between Physical Fitness and Spiritual Health among arts and science undergraduate students. We accept the null hypothesis (H_{09}), implying that these correlations are not significantly different. Thus, the association between Physical Fitness and Spiritual Health is analogous for arts and science undergraduates.

Observing Table 2, we find a Z-score of 0.1166, suggesting no substantial difference in the correlations between Physical Fitness and Environmentalism for arts and science undergraduate students. Consequently, we accept the null hypothesis (H_{010}), indicating the consistency of these correlations. Therefore, the relationship between Physical Fitness and Environmentalism is akin for arts and science undergraduates.

From the data in Table 2, it is evident that the Z-score is 1.1752, indicating an insignificant variation in the correlations between Physical Fitness and Social Consciousness among arts and science undergraduate students. The null hypothesis (H_{011}) is accepted, signifying no significant difference in

these correlations. Therefore, the association between Physical Fitness and Social Consciousness is similar for both arts and science undergraduates.

Variables	r ₁₂ (Arts)	r ₃₄ (Science)	Z _{r₁₂}	Z _{r₃₄}	N ₁	N ₂	SE _D	Z
Mental Health & Emotional Health	0.371	0.053	0.389582	0.05305	120	31	0.210384	1.5996
Mental Health & Spiritual Health	0.433	0.382	0.463583	0.402399	120	31	0.210384	0.2908
Mental Health & Environmentalism	0.55	0.401	0.618381	0.42484	120	31	0.210384	0.9199
Mental Health & Social Consciousness	0.515	0.391	0.569511	0.41298	120	31	0.210384	0.7440

Table 3: Correlation of Coefficient with Z-score between the variables of Mental Health and other variables

Table 3 reveals a Z-score of 1.5996, indicating an insignificant difference in the correlation between Mental Health and Emotional Health among arts and science undergraduate students. As a result, we accept the null hypothesis (H₀₁₂) suggesting that there is no significant distinction between arts and science students in this regard. Hence, the association between Mental Health and Emotional Health remains similar for both groups of undergraduate students.

In Table 3, we observe a Z-score of 0.2908, implying a lack of significant difference in the correlation between Mental Health and Spiritual Health for arts and science undergraduate students. Therefore, we accept the null hypothesis (H₀₁₃), which posits no significant variance between arts and science students in this context. Consequently, the relationship between Mental Health and Spiritual Health appears similar for both groups of undergraduate students.

Examining Table 3, researcher find a Z-score of 0.9199, signifying an insignificant difference in the correlation between Mental Health and Environmentalism among arts and science undergraduate students. Hence, we accept the null hypothesis (H₀₁₄) asserting that there is no substantial differentiation between arts and science students. Consequently, the association between Mental Health and Environmentalism remains comparable for arts and science undergraduate students.

Table 3 presents a Z-score of 0.7440, indicating a lack of significant difference in the correlation between Mental Health and Social Consciousness for arts and science undergraduate students. As a result, we accept the null hypothesis (H₀₁₅), which suggests no noteworthy divergence between arts and science students in this context. Hence, the association between Mental Health and Social Consciousness appears to be similar for both groups of undergraduate students.

Variables	r ₁₂ (Arts)	r ₃₄ (Science)	Z _{r₁₂}	Z _{r₃₄}	N ₁	N ₂	SE _D	Z
Emotional Health & Spiritual Health	0.469	0.295	0.508788	0.304034	120	31	0.210384	0.9732
Emotional Health & Environmentalism	0.536	0.194	0.598526	0.19649	120	31	0.210384	1.9110
Emotional Health & Social Consciousness	0.35	0.492	0.365444	0.538696	120	31	0.210384	-0.8235

Table 4: Correlation of Coefficient with Z-score between Emotional Health and other Variables

Regarding the correlation between Emotional Health and Spiritual Health for arts and science undergraduate students, Table 4 reveals a Z-score of 0.9732, indicating an insignificant difference. As a result, we accept the null hypothesis (H_{016}) that there is no significant distinction between these groups in terms of this correlation. Therefore, we can conclude that the relationship between Emotional Health and Spiritual Health remains consistent for both arts and science undergraduate students.

Turning our attention to the connection between Emotional Health and Environmentalism, the data from Table 4 shows a Z-score of 1.9110, signifying an insignificant difference between arts and science undergraduate students. Consequently, we accept the null hypothesis (H_{017}) stating that no significant variation exists between these groups in relation to the correlation between Emotional Health and Environmentalism. Thus, the association between Emotional Health and Environmentalism appears to be comparable for both arts and science undergraduate students.

In the context of the correlation between Emotional Health and Social Consciousness, Table 4 reports a Z-score of -0.8235, implying an insignificant difference between arts and science undergraduate students. Accordingly, we accept the null hypothesis (H_{018}), which suggests that there is no significant divergence between these groups with respect to the correlation between Emotional Health and Social Consciousness. In conclusion, the association between Emotional Health and Social Consciousness appears similar for both arts and science undergraduate students

Variables	r ₁₂ (Arts)	r ₃₄ (Science)	Z _{r₁₂}	Z _{r₃₄}	N ₁	N ₂	SE _D	Z
Spiritual Health & Environmentalism	0.532	0.274	0.592931	0.281183	120	31	0.210384	1.4818
Spiritual Health & Social Consciousness	0.349	0.251	0.364305	0.25648	120	31	0.210384	0.5125

Table 5: Correlation of Coefficient with Z-score between Spiritual Health and other Variables

In Table 5, we observe that the Z-score for the correlation between Spiritual Health and Environmentalism among arts and science undergraduate students is 1.4818, indicating a lack of significant difference. As a result, we accept the null hypothesis (H_{019}) which states that "There is no significant difference between Arts and science students in terms of the correlation between Spiritual Health and Environmentalism." Consequently, it can be concluded that the relationship between Spiritual Health and Environmentalism remains consistent among both arts and science undergraduate students, suggesting a similar association.

Similarly, from the same Table 5, we find that the Z-score for the correlation between Spiritual Health and Social Consciousness is 0.5125, signifying an insignificant difference between Arts and science undergraduate students. This leads to the acceptance of the null hypothesis (H_{020}), asserting that "There is no significant difference between Arts and science students concerning the correlation between Spiritual Health and Social Consciousness." Hence, it can be inferred that the association between Spiritual Health and Social Consciousness remains similar for both arts and science undergraduate students.

Variables	r ₁₂ (Arts)	r ₃₄ (Science)	Z _{r₁₂}	Z _{r₃₄}	N ₁	N ₂	SE _D	Z
Environmentalism & Social Consciousness	0.728	0.509	0.924459	0.561379	120	31	0.210384	1.7258

Table 6: Correlation of Coefficient with Z-score between Environmentalism and Social Consciousness

According to the statistics presented in table 5, the Z-score of 1.7258 implies that there is an insignificant difference between arts and science undergraduate students with respect to the correlations between Environmentalism and Social Consciousness. Therefore, we accept the null hypothesis (H_{021}) that there is no significant variation between arts and science students in terms of the relationship between these variables.

Major Findings of the Study

The major findings from this study reveal that arts and science undergraduate students show remarkably similar correlations between various aspects of LOHAS (Lifestyles of Health and Sustainability) and health-related variables. These results indicate that the associations between LOHAS and the variables of Physical Fitness, Mental Health, Emotional Health, Spiritual Health, Environmentalism, and Social Consciousness are consistent and do not significantly differ between the two groups. Moreover, the relationships between these health-related variables, such as Physical Fitness and Mental Health, Emotional Health, Spiritual Health, Environmentalism, and Social Consciousness, are also comparable for both arts and science students. This suggests that, in the context of this study, there are no substantial distinctions in how these aspects of well-being and sustainability are perceived or interrelated among the two student populations.

Conclusion

Lifestyles of Health and Sustainability (LOHAS) refers to a particular market segment related to sustainable living that is very much common in recent years. Modern day life has become so complicated and engulfed with technology that sustainable living has become very necessary for all of us. This present study reveals no significant differences in the relationships between various aspects of LOHAS (Lifestyles of Health and Sustainability) and health-related variables among arts and science undergraduate students. It means both arts and science students have similar associations between these aspects, indicating comparable correlations in these areas for both groups.

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