Identifying the Impact of Yogic Practices on Human Wellness: A Qualitative Study

Digvilas D. Kanadiya[1], Dr. Sham Ganpat Tikhe[2]
[1]PhD Scholar, [2]Assistance Professor,
Department of Yoga & Ayurveda,
School of Sanatan Dharm and Indic Studies,
Sanchi University of Buddhist-Indic Studies
Sanchi-Madhya Pradesh

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Abstract :

The present research paper is depth inquiry into the impact of 'Yoga' on human wellness as applied to the Holistic approach. The study took a total of 50 clinical studies related to Yoga and its impact and most 20 samples were included for the qualitative study during the period. the study undertaken qualitative research method where content analysis, sentiment analysis, LDA-latent Dirichlet Allocation method as LDA model, Key word Frequency analysis were utilised for accomplished underlying object of the present research study. The different analysis and testing methods's result indicating to 'Yoga' has significant affect on Human wellness as well as by different categorised too. Moreover, there are also significance association found in 'Yoga' with diseases during the study.

Key Words: Yogic Practice, Human Wellness, Impact, Comprehensive

1) Introduction:

Overall wellness is a challenge for humans in this information era and Yogic practice is undertaken as an alternative as well as a complementary approach for mindfulness to physical wellbeing nowadays. In ancient India, The Yogic Practice had the main approach under AYURVEDA in respect of CHARAK-SANHITA. In this century, the Yogic practice has been an alternative to allopathy medicine and surgery. The Yogic intervention has a multifaceted impact on the overall wellness of humans by playing a vital role between the Body and Mind. There are several clinical settings undertaken to heal and minimize disease conditions by Yogic practice with methodology in more likely to therapy, integrative approach with medicine as well as mindfulness—meditation approach. The present research is a comprehensive effort on the impact of Yogic practice in clinical settings for various diseases and conditions.

2) Objectives:

- **To Identify the Impact of the Yogic Practice on Different Dimensions of Human Wellness under the Control-Clinical Condition.**
- **To Examine the Effects of Yoga in Psychological, Physical and wellbeing of human.**

3) Data & Method:

The present research study has been undertaken as a qualitative approach to explore the impact of yogic practice as an intervention under different clinical trials during the period. The qualitative approach mostly focuses on deductive content analysis on the collected 20 clinical research papers with inclusion criteria of impact-effect of Yogic Practice or Yoga under the control condition. The deducting approach allows for selecting random and diversified clinical research papers in definite variables undertaken in this research study. The selection method of a research paper is standard as traditional from the various databases like PubMed, Elsevier, and PsychoINFO Etc. Here, the impact dimension on the two major criteria under wellness like physical and psychological consideration.

4) Tools & Techniques:

Under the content analysis, there a deductive approach has been undertaken to achieve objects of the present research study. For the supportive method for the content analysis, LDA, sentiment analysis, keywords analysis have been also undertaken for the present research study.

5) Literature Review:

Naragatti S (2020) has studied the effect of Yoga on wellness and health where majorly focusing on the significant role of Yoga on overall health. The study included 50 respondents with a minimum age of 30^{th} and less than 60^{th} years during the period. Here, Shapiro Wilk tested for the viability of normality during the clinical study. Moreover "T" test is used to identify the variation among the groups in the statistical analysis. That study also identified the importance of Yoga in personality development regarding the physical level, mental level, emotional level and intellectual level with support of a spiritual foundation. Here, WHO quality of life has been considered for the quality of life in the wellness of human life. The main outcome of the proposed studied that there are significant differences between the groups where one group practised Yoga and the second group did not practice Yoga during the period. The group having Yoga practice has the most favourable impact found in areas of the physical

function, social domain and environmental domain in the part of the quality of life under the study.

Mote K.M (2019) undertook research worked for measure impact of the Yoga on stress and mental health. The study included 40 college students from Aurangabad district, Maharashtra. The major tools utilised were the Mental Health Inventory (MHI) and the Student Stress Scale during the study. The data analysis process undertaken T" group test for analysed data regarding measure differentiates between two groups.

Seppala E. & Bradley C (2020), have studied depends on clinical trials on university students regarding mindfulness and breathing exercises. The study included 25 indicators for measuring mental health and wellness. Here, 131 total samples were included for the clinical trial during the study. The study has made significant progress in psychological well-being, and physical health as well as also benefited in maintaining social benefits. There are Negative relations found between stress, depression, anxiety, life satisfaction, sleep problems etc. so the study proves the necessary intervention through yoga, breathing exercises and mindfulness practice has a very significant effect on the overall well-being of humans.

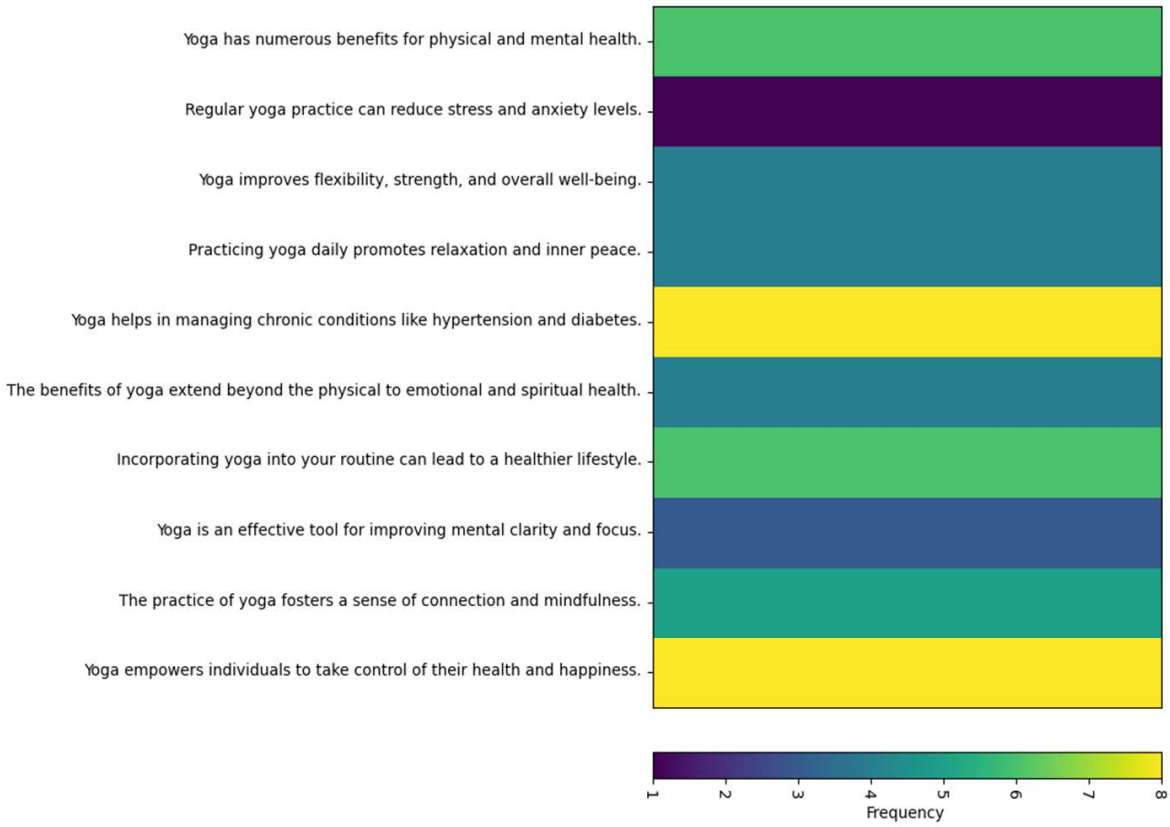
Figure: 1
Yoga Outcomes

Source: Authors' Evaluation

5) Result:

The content analysis is the major tool for the present research study where more than 1020 paragraphs have been extracted from the included research paper regarding Yoga. As the deductive approach under the content analysis, there were extracting most 72 sentences with phrases content extraction. Out of 72, there have been quoted 10 most content found for positive aspects under Yoga benefits or impact. That seems in **Figure: 2** very comprehensive.

Figure: 2
Most Extraction Sentences from Samples



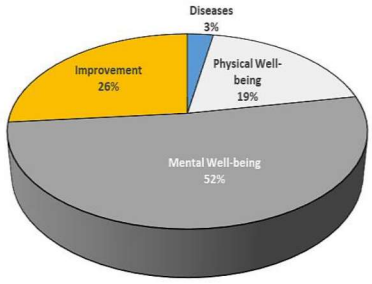
Source: Authors' Data Analysis

Table: 1 shows the **content analysis** by major phrases extraction from the underlying samples. There are Mental Well-being has 352 as the highest frequency found in all of the others under the categories and The Diseases-

Table: 1
Content Analysis By Phrases

Phrases	Frequency
Diseases	19
Physical Well-being	132
Mental Well-being	352
Improvement	181
Total Frequency	684

Figure: 3 % Distribution of Phrases

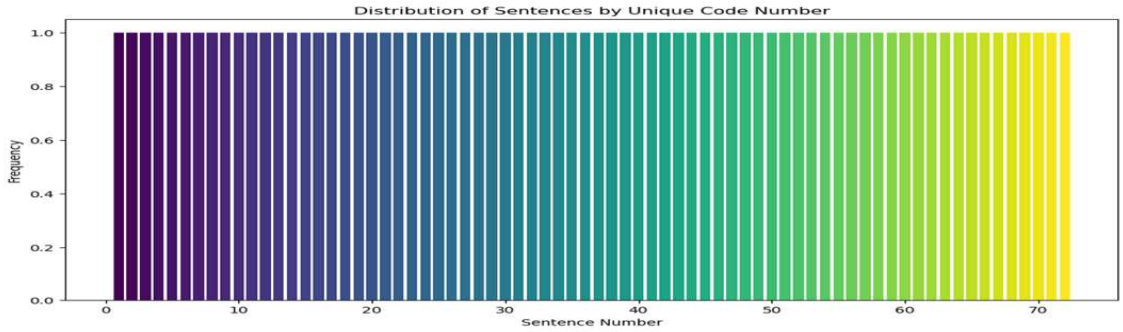


Source: Author's Data Analysis

Found with the lowest frequency against all categories in the content. After Mental We ll-being, the significant improvement category showed under second highest frequency while physical wellbeing then after. So frequency distribution under different categorie s with 52 percent by Mental well-being, 26 percent by improvement, 19 percent by ph ysical well-being and 3 percent by disease distributed accordingly.

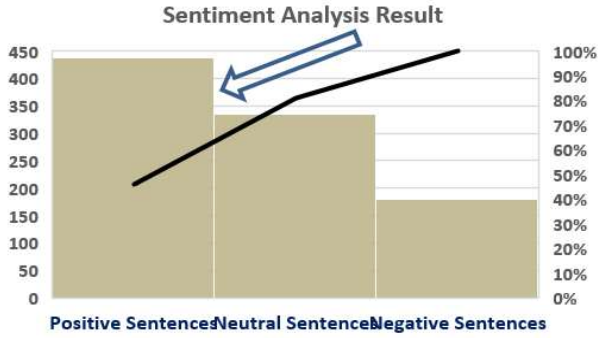
Chi-squared Test:	**Chi-squared Statistic: 189.54442826213787** **P-value: 7.656306832884467e-41**

The categories extracted in content analysis has been tested by Chi-squared test and its result showing to 189.54 Chi-squared statistic with lowest p value by 0.0. That's indicating that there would sufficient evidence of reject Null hypothesis and accept alternative hypothesis of strong association among the underlying categories namely disease, physical well-being, mental well-being and improvement respectively. Moreover, the analysis highlights a significant focus on mental well-being, followed by improvement, with physical well-being and diseases being relatively less prominent in the analysed content.



After the content analysis, the **sentiment analysis** has been undertaken for the supporting evidence of the present research study. The **Table:2** showing the sentiment analysis that indicating highest predominant Positive Sentences by around 46 percentage in favour of Yoga's impact. The second highest dominants by Neutral Sentences with 35 percent while lowest by around 19 percent through Negative sentences as in favour of Yoga's impact. In the analysis, The text sentiment score is positive by 0.08515 so it indicating positive impact of yoga.

Figure:4



Source: Author's Data Analysis

Table: 2
Sentiment Analysis

Sentiment	Frequancy	%
Neutral Sentences	334	35.12
Negative Sentences	180	18.93
Positive Sentences	437	45.95

The **Sentimental Lexicon Model** has been used in sentiment analysis where an overall positive score for Yoga has an overall positive impact on well-being as a Holistic approach. So this analysis is directly supportive evidence to content analysis in favour of positive Yoga impact.

The Third analysis tool is **LDA** as the **Latent Dirichlet Allocation method** used in the present study. This generative probabilistic model is used for Topic Modelling and assumes a mixture of various topics that are pre-included in the study. The topic

identifies and represents the word distribution. Here predefined Topics are in three categories as “Yoga and Health Benefits” by first Topic, “Yoga and Stress Reduction” by the second Topic and “Yoga and Anxiety Management” by the third Topic.

The First topic indicates to focus on Yoga and Physical/Mental Well-being. Topic 1 underscores how yoga positively affects both our body and mind. It highlights the significant impact yoga has on our physical health, mental well-being, and overall mood. By practising yoga regularly, individuals can experience a boost in their mood and enhance their overall well-being. This topic emphasizes the importance of incorporating yoga into our daily routine to reap these holistic benefits. Overall, Topic 1 emphasizes how yoga plays a vital role in improving our physical and mental health, promoting a sense of well-being, and enhancing our overall quality of life.

The Second topic focuses on the Yoga for Anxiety Management and Vitality, the spotlight is on yoga's pivotal role in handling anxiety and fostering vitality. Key words such as "yoga," "anxiety," "physical," "boost," and "practice" shed light on how yoga serves as a powerful tool in easing anxiety and enhancing vitality. The inclusion of terms like "daily," "regular," and "help" underscores the significance of integrating yoga into our daily lives to effectively manage anxiety and cultivate overall well-being. This topic brings to the forefront the therapeutic essence of yoga, particularly its ability to address anxiety-related issues and promote vitality through consistent practice.

The Third topic is focused on Yoga for Stress Reduction and Flexibility improvement, it highlights how yoga can help reduce stress and increase flexibility. Keywords like "yoga," "stress," "flexibility," "improves," and "overall" indicate the focus on reducing stress levels and improving flexibility through yoga practice. Additionally, terms such as "practising," "reduce," and "enhances" further emphasize the positive impact of yoga on stress reduction and physical well-being. This topic underscores the benefits of yoga for both physical and psychological health, emphasizing its ability to promote stress relief and enhance overall well-being through regular practice.

The following are the results of **LDA Model**:

Topic 1: '0.092*"yoga" + 0.088*"physical" + 0.087*"mental" + 0.082*"mood" + "0.081*"daily" + 0.081*"boost" + 0.079*"practicing" + 0.078*"enhances" +' '0.078*"health" + 0.076*"beneficial'

Topic 2: '0.092*"yoga" + 0.089*"anxiety" + 0.088*"physical" + 0.081*"daily" + ' '0.081*"regular" + 0.081*"boost" + 0.080*"practice" + 0.077*"help" + ' '0.077*"managing" + 0.076*"vitality"

Topic 3: '0.092*"yoga" + 0.089*"stress" + 0.081*"flexibility" + 0.080*"improves" + "0.080*"overall" + 0.079*"practicing" + 0.079*"reduces" + 0.078*"enhances" + "0.076*"well-being" + 0.076*"vitality'

Average probabilities of each topic model:

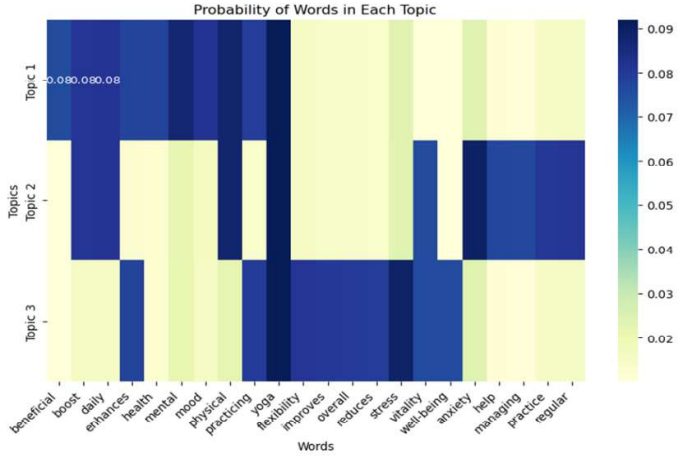
[0.3333183825016022, 0.3333270978182554, 0.33335453023513156]

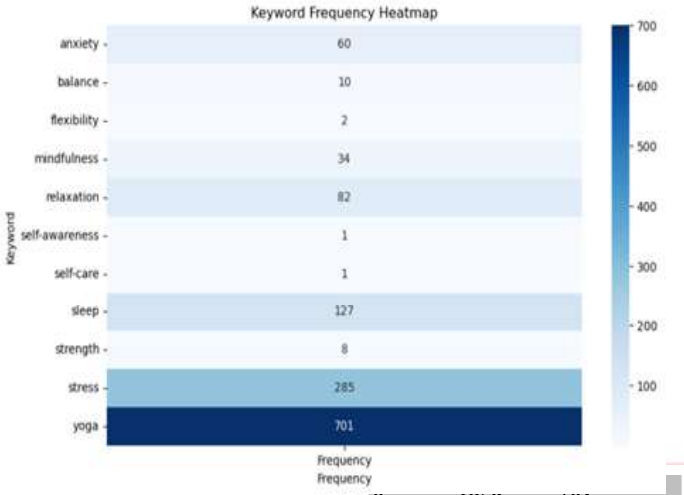
Here, comparison among three Topics, The most significant model is Topic 3 with an average probability of 0.33335453023513156.

So, it indicates that there are most dominants of "Yoga for Stress Reduction and Flexibility improvement" having a higher impact through Topic 3 than after second and first accordingly. So its evidence through LDA Model analysis is the most significant of the Yoga impact on the highest to stress reduction, improvement, and flexibility.

Figure: 5

Words Based Probabilities





The Keywords analysis is also one of the supporting analysis tools for the present research study where there has been found most 10 keywords from the samples with its frequency as follow:

Table: 3 Keyword Frequency Analysis:

	Keyword	Frequency
1	relaxation	82
2	stress	285
3	balance	10
4	anxiety	60
5	mindfulness	34
6	sleep	127
7	self-care	1
8	flexibility	2
9	strength	8
10	self-awareness	1

The keyword frequency analysis highlights the dominance of "yoga" with a frequency of 701, significantly influencing the mean frequency of approximately 90.636. The dataset exhibits substantial variability, as evidenced by a range of 700 and an interquartile range of 93. While the median frequency is 60, indicating a central tendency less affected by outliers, the positively skewed distribution suggests the presence of high-frequency outliers. This distribution complexity is further reflected in a standard deviation of approximately 205.735 and a kurtosis that may deviate from a standard normal distribution. These statistics collectively emphasize the prominence of "yoga" while recognizing variability and outliers among other keywords, offering insights into the dataset's composition and potential themes.

Table: 4
Disease Association with Yoga and Non-Yoga Categories

Code	Category	Disease Frequency (Yoga)	Disease frequency (No-Yoga)
0	Physical Well-being	132	120
1	Mental Well-being	352	280
2	Improvement	181	140
3	Diseases	19	30
	Total	684	570

Source: Author's Data Analysis

Table: 4 focuses on Disease frequency based on whether individuals engage in yoga or not, categorized into different aspects of well-being and improvement. For physical well-being, yoga practitioners experienced 132 cases of diseases compared to 120 cases of non-practitioners. Similarly, in mental well-being, those practising yoga encountered 352 instances, while non-practitioners reported 280 cases. In terms of improvement, 181 cases were associated with yoga, contrasting with 140 cases for non-yoga participants. Additionally, diseases were reported at a lower frequency among yoga practitioners (19 cases) compared to non-practitioners (30 cases). Overall, the table suggests that yoga may play a role in reducing disease frequency across various domains of well-being and improvement, with notable differences observed between yoga practitioners and non-practitioners.

Chi-square statistic: Approximately 13.659
p-value: 0.00345
Degrees of freedom: 3

The chi-square statistic measures the extent of deviation between observed and expected frequencies. In this case, it is approximately 13.659. The p-value, which represents the probability of observing the data under the null hypothesis (i.e., no association between yoga and disease frequency), is approximately 0.00345. With 3 degrees of freedom, we compare the chi-square statistic to the critical value from the chi-square distribution. The expected frequencies show what would be expected if there were no association between yoga and disease frequency. Given the low p-value (less than 0.05), we reject the null hypothesis and conclude that there is a significant association between yoga and disease frequency. Therefore, yoga appears to have a notable impact on disease frequency based on

Conclusion:

The present research study mainly proven to Yoga effect is most holistic as well as also significance in the individual's mental health, physical health as well as improvement level in different diseases level. The study has different

dimensional research output supporting to Yoga has multidimensional effect in various conditions. The significance of the test do not implicate any size of impact or effect of Yoga on various categories level, but proving the positive impact as higher than any other categories.

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Appendix

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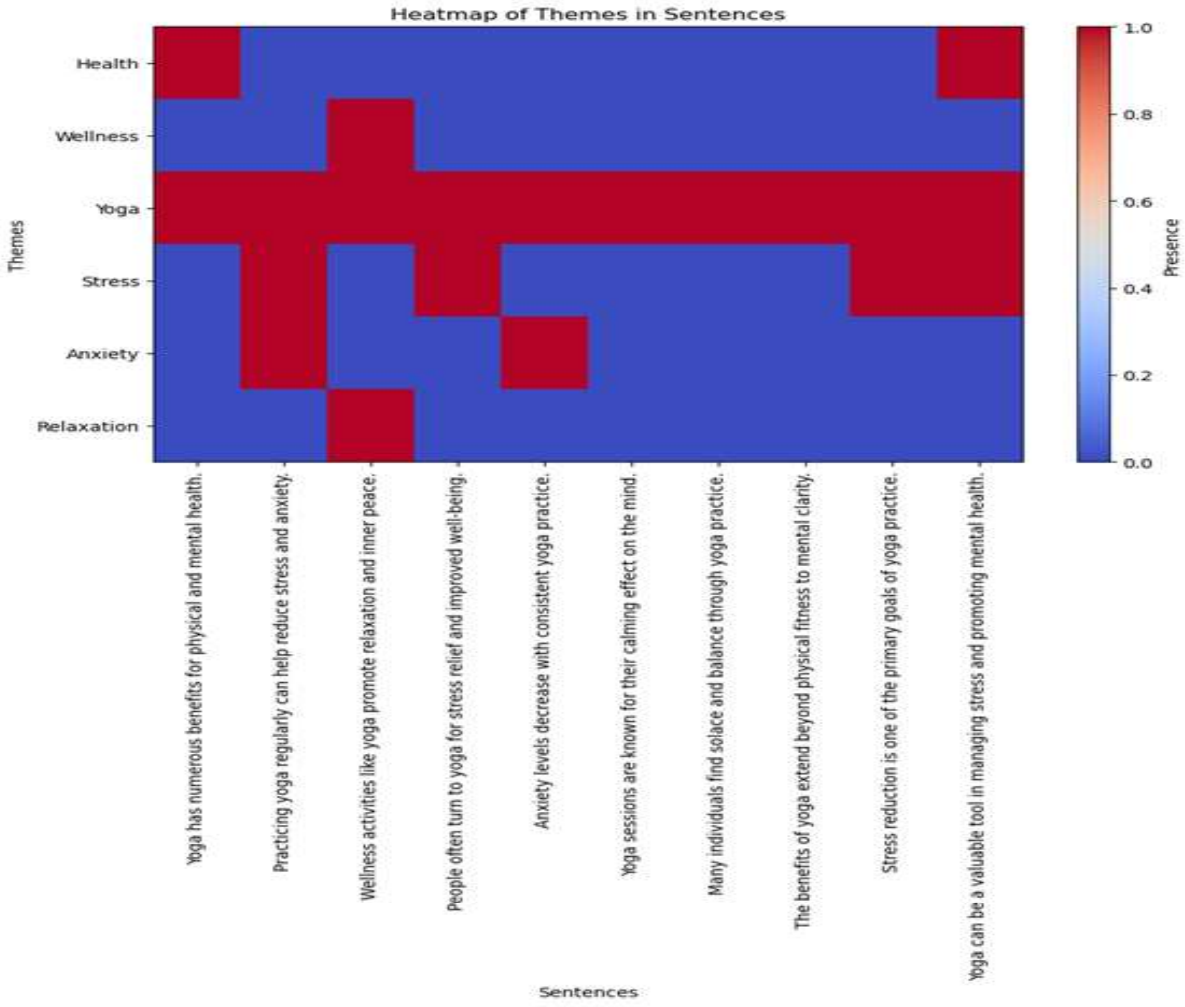
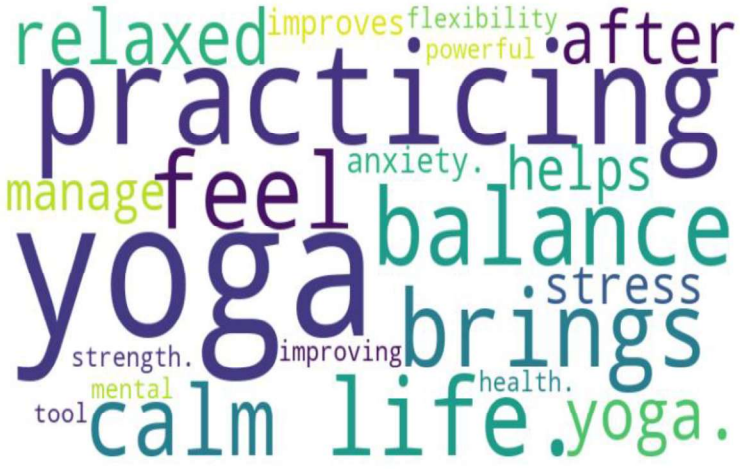


X2

"Yoga improves flexibility and reduces stress.",

"Practicing yoga daily can boost your mood.",
"Yoga is beneficial for both physical and mental health.",
"Regular yoga practice helps in managing anxiety.",
"Yoga enhances overall well-being and vitality.",
"Yoga has a calming effect on the mind and body.",
"Yoga promotes relaxation and reduces tension.",

X3



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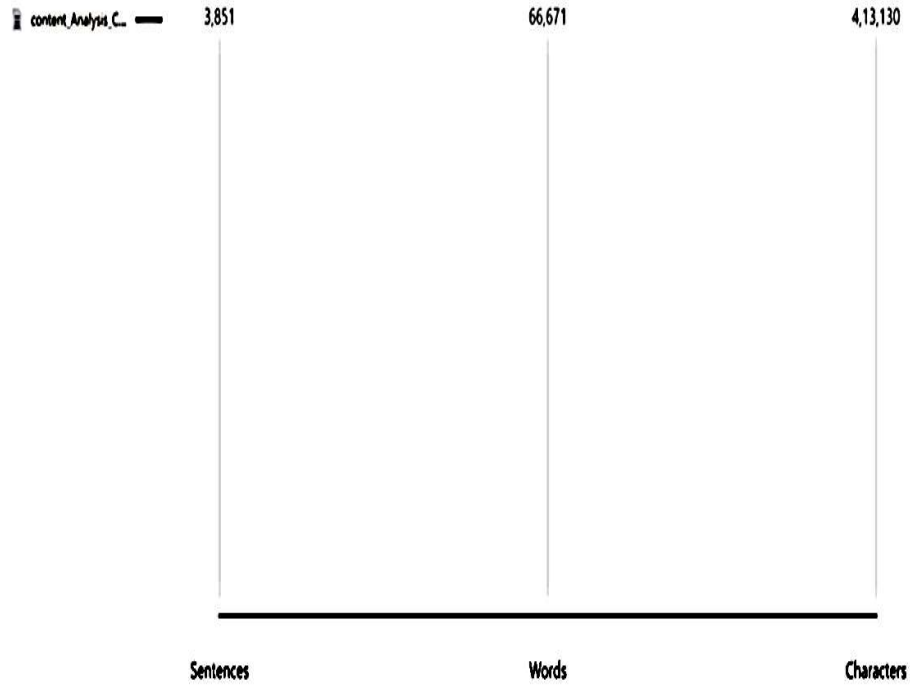

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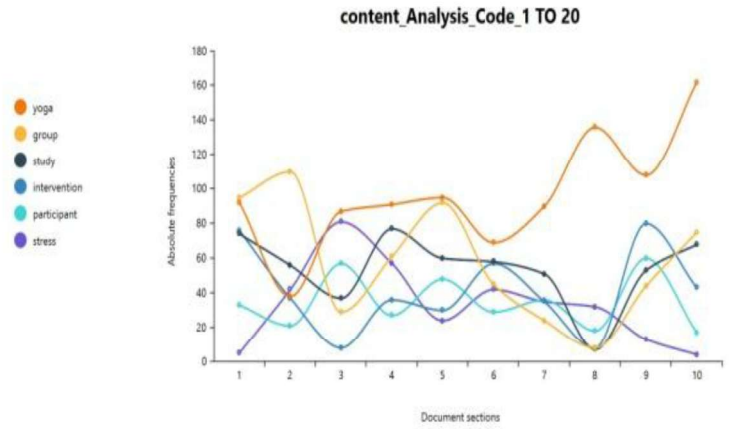
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