

The Combination of Green Tea and Citrus on Mood Improvement

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Background

- Many people → suffering from anxiety
 - Seek for alternatives that can help to release pressure and anxiety naturally
 - Green tea and citrus → well known for having functionalities of relaxation and relieving stress
- ↓
- However, unknown effects in the combination of these two foods

Research Objectives

- 1) To investigate the mental health situation in Hong Kong
- 2) To find out the synergistic effect of green tea and citrus on mood improvement

Methodology

- 1) Online questionnaires → assess Hong Kong citizens' **sleep quality** and **stress levels**
- 2) Selected 60 volunteers with a high score in anxiety levels
- 3) Divided into 4 groups & assigned with different diet treatments for 30 days
- 4) Group A: intake at least 200ml of green tea and an orange per day;
Group B: intake at least 200ml of green tea per day;
Group C: intake an orange per day;
Group D: maintained their original eating habit.

Findings 1

\\ The experience was significant to reduce **anxiety level** \\

\\ p-values = 3.9% (< 5%) → **Significant Association** between Sleeping Quality and Stress Level \\

\\ > Cramer's' V value= 0.266 → **Small to Moderate Effect** \\

T-Test

Paired Samples Statistics				
	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 DASS Anxiety Score (Before)	10.97	60	2.564	.331
DASS Anxiety Score (After)	7.63	60	3.314	.428

Paired Samples Correlations			
	N	Correlation	Sig.
Pair 1 DASS Anxiety Score (Before) & DASS Anxiety Score (After)	60	-.529	<.001

Paired Samples Test								
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pair 1 DASS Anxiety Score (Before) - DASS Anxiety Score (After)	3.333	2.927	.378	2.577	4.089	8.822	59	<.001

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.250 ^a	1	.039		
Continuity Correction ^b	3.205	1	.073		
Likelihood Ratio	4.361	1	.037		
Fisher's Exact Test				.058	.036
Linear-by-Linear Association	4.180	1	.041		
N of Valid Cases	60				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.80.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.266	.039
	Cramer's V	.266	.039
N of Valid Cases		60	

Findings 2

Bidirectional Relationship with Psychology and Emotional states

Conclusion

- 80.3% of people in Hong Kong were suffer from anxiety
- Group A had the most significant result on reducing anxiety levels from very serious levels of anxiety to mild and moderate levels
- Natural treatment is a greater option instead of traditional medicine
- The synergic effects of Green tea and citrus can improve sleep quality and mood situations (Tenable)