```
GET DATA
  /TYPE=XLSX
  /FILE=Mental_Health_Lifestyle_Dataset.csv.xlsx'
  /SHEET=name 'Mental_Health_Lifestyle_Dataset'
  /CELLRANGE=FULL
  /READNAMES=ON
  /LEADINGSPACES IGNORE=YES
  /TRAILINGSPACES IGNORE=YES
  /DATATYPEMIN PERCENTAGE=95.0
  /HIDDEN IGNORE=YES.
EXECUTE.
DATASET NAME DataSet1 WINDOW=FRONT.

SAVE OUTFILE=Mental_Health_Lifestyle.sav'
  /COMPRESSED.
DESCRIPTIVES VARIABLES=SleepHours WorkHoursperWeek ScreenTimeperDayHours HappinessScore
    SocialInteractionScore
  /STATISTICS=MEAN STDDEV MIN MAX.
```

Descriptives

Notes

Output Created		02-NOV-2025 13:44:00
Comments		
Input	Data	C:\Users\abhia\OneDrive\文档\project\Mental_Health_Lifestyle.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	3000
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.

Syntax		DESCRIPTIVES VARIABLES=SleepHours WorkHoursperWeek ScreenTimeperDayHours HappinessScore SocialInteractionScore /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.09

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Sleep Hours	3000	1.4	11.3	6.476	1.4999
Work Hours per Week	3000	20	59	39.47	11.451
Screen Time per Day (Hours)	3000	2.0	8.0	5.090	1.7472
Happiness Score	3000	1.0	10.0	5.395	2.5576
Social Interaction Score	3000	1.0	10.0	5.470	2.5635
Valid N (listwise)	3000				

```
CORRELATIONS
  /VARIABLES=SleepHours WorkHoursperWeek ScreenTimeperDayHours SocialInteractionScore
HappinessScore
  /PRINT=TWOTAIL NOSIG FULL
  /MISSING=PAIRWISE.
```

Correlations

Notes

Output Created		02-NOV-2025 13:45:09
Comments		
Input	Data	\Mental_Health_Lifestyle.sav
	Active Dataset	DataSet1
	Filter	<none>

	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	3000
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=SleepHours WorkHoursperWeek ScreenTimeperDayHours SocialInteractionScore HappinessScore /PRINT=TWOTAIL NOSIG FULL /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.03

Correlations

		Sleep Hours	Work Hours per Week	Screen Time per Day (Hours)
Sleep Hours	Pearson Correlation	1	.011	.023
	Sig. (2-tailed)		.544	.217
	N	3000	3000	3000
Work Hours per Week	Pearson Correlation	.011	1	-.020
	Sig. (2-tailed)	.544		.267
	N	3000	3000	3000
Screen Time per Day (Hours)	Pearson Correlation	.023	-.020	1
	Sig. (2-tailed)	.217	.267	
	N	3000	3000	3000
Social Interaction Score	Pearson Correlation	-.005	.015	.006
	Sig. (2-tailed)	.775	.411	.728
	N	3000	3000	3000

Happiness Score	Pearson Correlation	.017	.011	.017
	Sig. (2-tailed)	.341	.553	.358
	N	3000	3000	3000

Correlations

		Social Interaction Score	Happiness Score
Sleep Hours	Pearson Correlation	-.005	.017
	Sig. (2-tailed)	.775	.341
	N	3000	3000
Work Hours per Week	Pearson Correlation	.015	.011
	Sig. (2-tailed)	.411	.553
	N	3000	3000
Screen Time per Day (Hours)	Pearson Correlation	.006	.017
	Sig. (2-tailed)	.728	.358
	N	3000	3000
Social Interaction Score	Pearson Correlation	1	-.040*
	Sig. (2-tailed)		.028
	N	3000	3000
Happiness Score	Pearson Correlation	-.040*	1
	Sig. (2-tailed)	.028	
	N	3000	3000

*. Correlation is significant at the 0.05 level (2-tailed).

```
RECODE ExerciseLevel ('Low'=1) ('Moderate'=2) ('High'=3) INTO Exercise_Level_Num.
EXECUTE.
RECODE ExerciseLevel StressLevel ('Low'=1) ('Moderate'=2) ('High'=3) INTO
Exercise_Level_Num
    StressLevel_Num.
EXECUTE.
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT HappinessScore
  /METHOD=ENTER StressLevel_Num Exercise_Level_Num WorkHoursperWeek
ScreenTimeperDayHours
    SocialInteractionScore SleepHours.
```

Regression

Notes

Output Created		02-NOV-2025 13:58:13
Comments		
Input	Data	\project\Mental_Health_Lifestyle.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	3000
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT HappinessScore /METHOD=ENTER StressLevel_Num Exercise_Level_Num WorkHoursperWeek ScreenTimeperDayHours SocialInteractionScore SleepHours.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.02
	Memory Required	5920 bytes
	Additional Memory Required for Residual Plots	0 bytes

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Sleep Hours, Social Interaction Score, StressLevel_Num, Work Hours per Week, Screen Time per Day (Hours), Exercise_Level_Num[b]	.	Enter

a. Dependent Variable: Happiness Score

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.064[a]	.004	.002	2.5550

a. Predictors: (Constant), Sleep Hours, Social Interaction Score, StressLevel_Num, Work Hours per Week, Screen Time per Day (Hours), Exercise_Level_Num

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	79.681	6	13.280	2.034	.058[b]
	Residual	19537.746	2993	6.528		
	Total	19617.427	2999			

a. Dependent Variable: Happiness Score

b. Predictors: (Constant), Sleep Hours, Social Interaction Score, StressLevel_Num, Work Hours per Week, Screen Time per Day (Hours), Exercise_Level_Num

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.924	.347		14.198	.000
	StressLevel_Num	.011	.057	.003	.185	.853
	Exercise_Level_Num	.130	.057	.041	2.269	.023
	Work Hours per Week	.003	.004	.013	.700	.484
	Screen Time per Day (Hours)	.025	.027	.017	.942	.346
	Social Interaction Score	-.041	.018	-.041	-2.254	.024
	Sleep Hours	.027	.031	.016	.876	.381

a. Dependent Variable: Happiness Score

```
RECODE ExerciseLevel StressLevel DietType ('Balanced'=1) ('Vegetarian'=2) ('Vegan'=3)
('Keto'=4)
    ('Junk Food'=5) INTO Exercise_Level_Num StressLevel_Num Diet_Type_Num.

Warning # 4638 in column 43.  Text: (
String variables being recoded differ in length.  The recode may be
inappropriate for some of the variables.

Warning # 4624 in column 73.  Text: )
The preceding RECODE specifies a value to be recoded that is longer than some
variable(s) in the recode.  The shorter values will be padded with blanks for
the comparison.

Warning # 4624 in column 19.  Text: )
The preceding RECODE specifies a value to be recoded that is longer than some
variable(s) in the recode.  The shorter values will be padded with blanks for
the comparison.
EXECUTE.
ONEWAY HappinessScore BY Diet_Type_Num
  /MISSING ANALYSIS
  /CRITERIA=CILEVEL(0.95)
  /POSTHOC=TUKEY ALPHA(0.05).
```

Oneway

Notes

Output Created		02-NOV-2025 14:06:15
Comments		
Input	Data	project\Mental_Health_Lifestyle.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	3000
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY HappinessScore BY Diet_Type_Num /MISSING ANALYSIS /CRITERIA=CILEVEL(0.95) /POSTHOC=TUKEY ALPHA(0.05).
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

ANOVA

Happiness Score

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	66.085	4	16.521	2.531	.039
Within Groups	19551.342	2995	6.528		
Total	19617.427	2999			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Happiness Score

Tukey HSD

(I) Diet_Type_Num	(J) Diet_Type_Num	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound
1.00	2.00	-.4168*	.1465	.036	-.817
	3.00	-.0394	.1478	.999	-.443
	4.00	-.0919	.1478	.972	-.495
	5.00	-.1886	.1438	.684	-.581
2.00	1.00	.4168*	.1465	.036	.017
	3.00	.3774	.1497	.086	-.031
	4.00	.3249	.1497	.191	-.084
	5.00	.2283	.1459	.520	-.170
3.00	1.00	.0394	.1478	.999	-.364
	2.00	-.3774	.1497	.086	-.786
	4.00	-.0525	.1509	.997	-.465
	5.00	-.1492	.1471	.849	-.551
4.00	1.00	.0919	.1478	.972	-.311
	2.00	-.3249	.1497	.191	-.734
	3.00	.0525	.1509	.997	-.359
	5.00	-.0966	.1471	.965	-.498
5.00	1.00	.1886	.1438	.684	-.204
	2.00	-.2283	.1459	.520	-.626
	3.00	.1492	.1471	.849	-.252
	4.00	.0966	.1471	.965	-.305

Multiple Comparisons

Dependent Variable: Happiness Score

Tukey HSD

(I) Diet_Type_Num	(J) Diet_Type_Num	95% Confidence Interval Upper Bound
1.00	2.00	-.017
	3.00	.364
	4.00	.311

	5.00	.204
2.00	1.00	.817
	3.00	.786
	4.00	.734
	5.00	.626
3.00	1.00	.443
	2.00	.031
	4.00	.359
	5.00	.252
4.00	1.00	.495
	2.00	.084
	3.00	.465
	5.00	.305
5.00	1.00	.581
	2.00	.170
	3.00	.551
	4.00	.498

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

Happiness Score

Tukey HSD[a,b]

		Subset for alpha = 0.05	
Diet_Type_Num	N	1	2
1.00	625	5.248	
3.00	573	5.287	5.287
4.00	573	5.340	5.340
5.00	637	5.436	5.436
2.00	592		5.665
Sig.		.705	.079

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 598.842.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

```
FREQUENCIES VARIABLES=Gender DietType StressLevel MentalHealthCondition
  /BARCHART FREQ
  /ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		02-NOV-2025 14:07:37
Comments		
Input	Data	\project\Mental_Health_Lifestyle.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	3000
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=Gender DietType StressLevel MentalHealthCondition /BARCHART FREQ /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00.77
	Elapsed Time	00:00:01.02

Statistics

		Gender	Diet Type	Stress Level	Mental Health Condition
N	Valid	3000	3000	3000	3000
	Missing	0	0	0	0

Frequency Table

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	1024	34.1	34.1	34.1
	Male	980	32.7	32.7	66.8
	Other	996	33.2	33.2	100.0
	Total	3000	100.0	100.0	

Diet Type

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Balanced	625	20.8	20.8	20.8
	Junk Food	637	21.2	21.2	42.1
	Keto	573	19.1	19.1	61.2
	Vegan	573	19.1	19.1	80.3
	Vegetarian	592	19.7	19.7	100.0
	Total	3000	100.0	100.0	

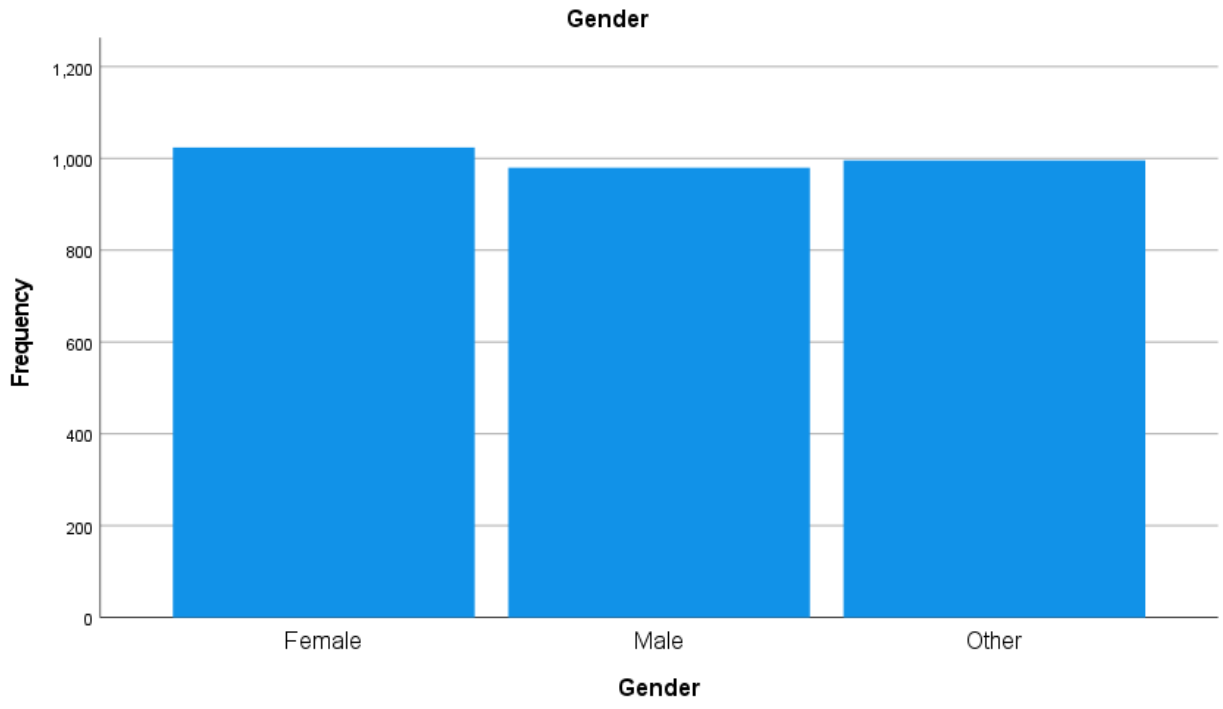
Stress Level

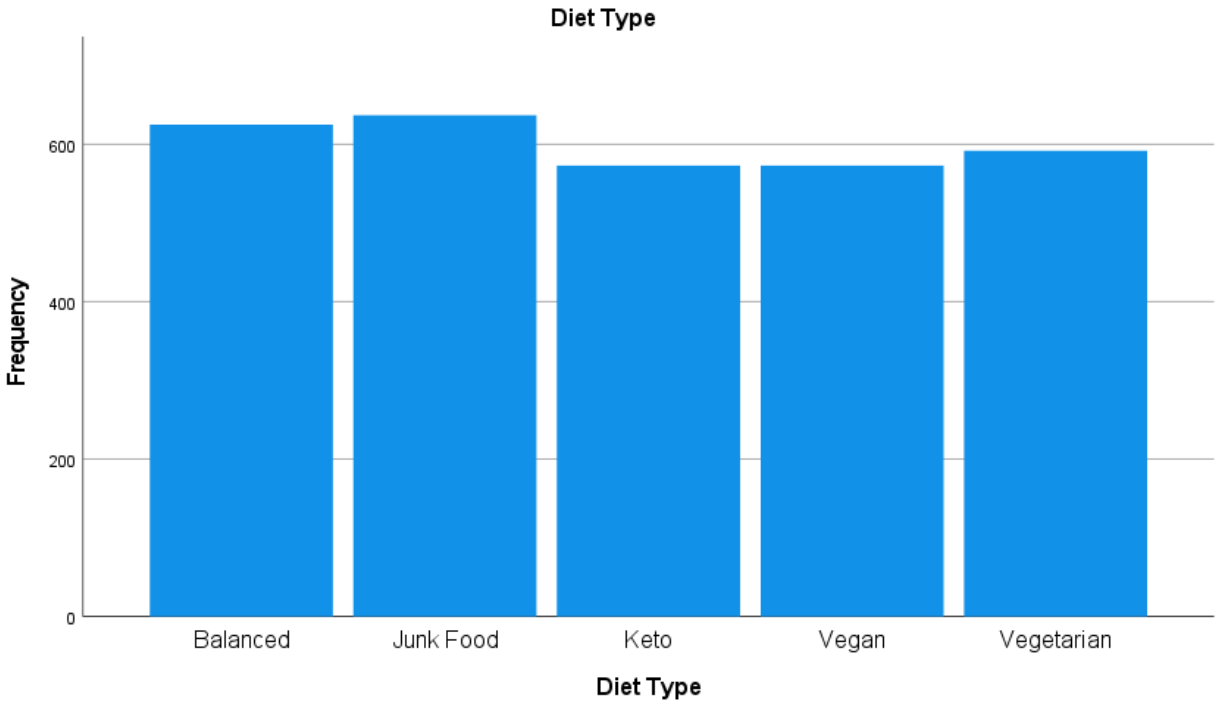
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High	1002	33.4	33.4	33.4
	Low	1008	33.6	33.6	67.0
	Moderate	990	33.0	33.0	100.0
	Total	3000	100.0	100.0	

Mental Health Condition

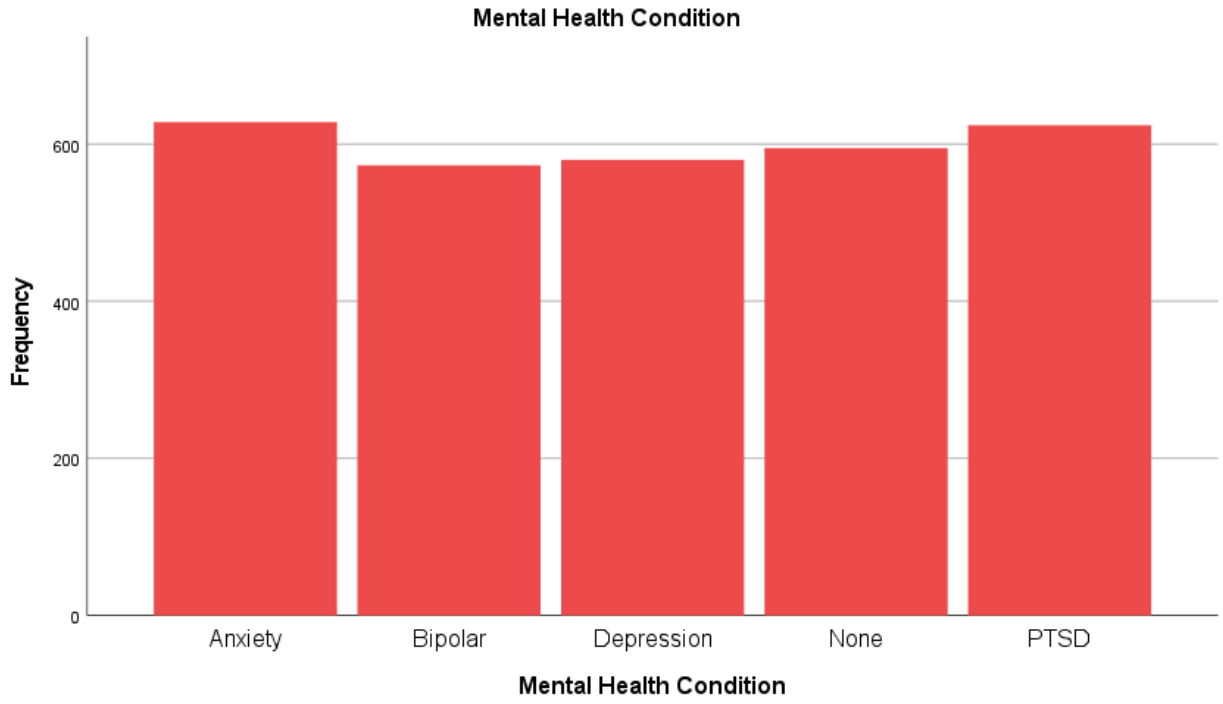
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Anxiety	628	20.9	20.9	20.9
	Bipolar	573	19.1	19.1	40.0
	Depression	580	19.3	19.3	59.4
	None	595	19.8	19.8	79.2
	PTSD	624	20.8	20.8	100.0
	Total	3000	100.0	100.0	

Bar Chart




Diet Type
Frequency
600
400
200
0
Balanced
Junk Food
Keto
Vegan
Vegetarian
Diet Type


Stress Level
Frequency
1,200
1,000
800
600
400
200
0
High
Low
Moderate
Stress Level




```
CROSSTABS
  /TABLES=Gender BY DietType
  /FORMAT=AVALUE TABLES
  /STATISTICS=CHISQ
  /CELLS=COUNT ROW COLUMN
  /COUNT ROUND CELL.
```

Crosstabs

Notes

Output Created		02-NOV-2025 14:11:11
Comments		
Input	Data	\project\Mental_Health_Lifestyle.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>

	N of Rows in Working Data File	3000
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=Gender BY DietType /FORMAT=AVALUE TABLES /STATISTICS=CHISQ /CELLS=COUNT ROW COLUMN /COUNT ROUND CELL.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.00
	Dimensions Requested	2
	Cells Available	524245

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Gender * Diet Type	3000	100.0%	0	0.0%	3000	100.0%

Gender * Diet Type Crosstabulation

			Diet Type				
			Balanced	Junk Food	Keto	Vegan	Vegetarian
Gender	Female	Count	230	219	193	188	194
		% within Gender	22.5%	21.4%	18.8%	18.4%	18.9%
		% within Diet Type	36.8%	34.4%	33.7%	32.8%	32.8%
	Male	Count	189	215	192	190	194

		% within Gender	19.3%	21.9%	19.6%	19.4%	19.8%
		% within Diet Type	30.2%	33.8%	33.5%	33.2%	32.8%
	Other	Count	206	203	188	195	204
		% within Gender	20.7%	20.4%	18.9%	19.6%	20.5%
		% within Diet Type	33.0%	31.9%	32.8%	34.0%	34.5%
Total		Count	625	637	573	573	592
		% within Gender	20.8%	21.2%	19.1%	19.1%	19.7%
		% within Diet Type	100.0%	100.0%	100.0%	100.0%	100.0%

Gender * Diet Type Crosstabulation

			Total
Gender	Female	Count	1024
		% within Gender	100.0%
		% within Diet Type	34.1%
	Male	Count	980
		% within Gender	100.0%
		% within Diet Type	32.7%
	Other	Count	996
		% within Gender	100.0%
		% within Diet Type	33.2%
Total		Count	3000
		% within Gender	100.0%
		% within Diet Type	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.268[a]	8	.832
Likelihood Ratio	4.270	8	.832
N of Valid Cases	3000		

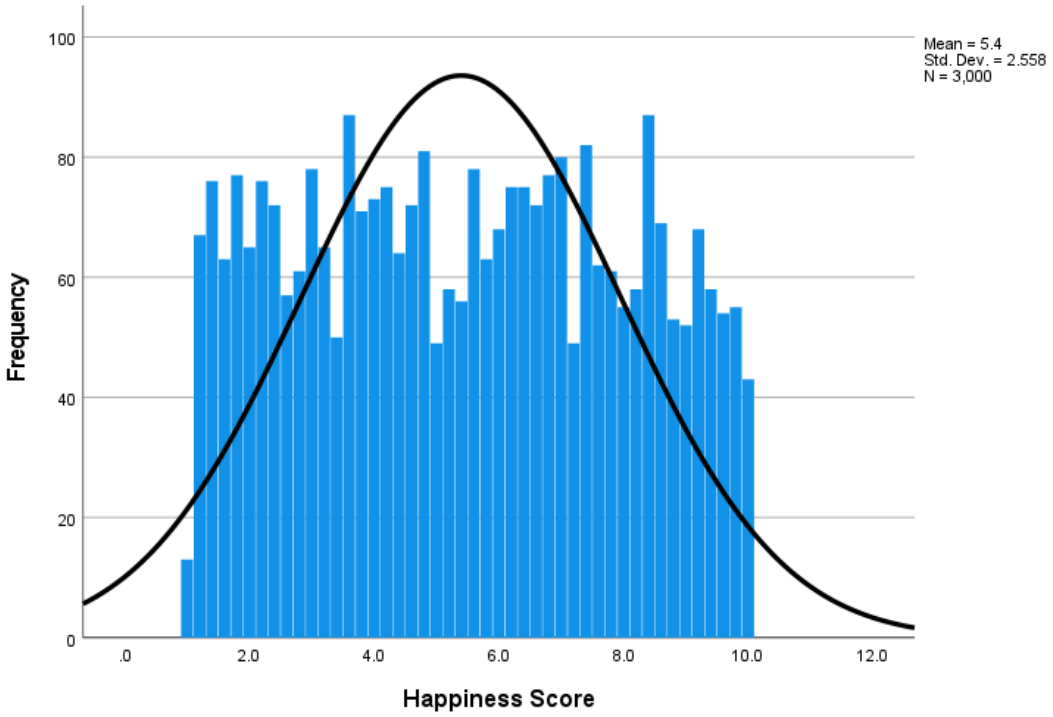
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 187.18.

```
GRAPH
  /HISTOGRAM(NORMAL)=HappinessScore.
```

Graph

Notes

Output Created		02-NOV-2025 14:14:15
Comments		
Input	Data	\project\Mental_Health_Lifestyle.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	3000
Syntax		GRAPH /HISTOGRAM(NORMAL)=HappinessScore.
Resources	Processor Time	00:00:00.22
	Elapsed Time	00:00:00.15




```
EXAMINE VARIABLES=HappinessScore
  /PLOT BOXPLOT STEMLEAF NPPLOT
  /COMPARE GROUPS
  /STATISTICS DESCRIPTIVES
  /CINTERVAL 95
  /MISSING LISTWISE
  /NOTOTAL.
```

Explore

Notes

Output Created		02-NOV-2025 14:17:53
Comments		
Input	Data	\project\Mental_Health_Lifestyle.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>

	Split File	<none>
	N of Rows in Working Data File	3000
Missing Value Handling	Definition of Missing	User-defined missing values for dependent variables are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any dependent variable or factor used.
Syntax		EXAMINE VARIABLES=HappinessScore /PLOT BOXPLOT STEMLEAF NPPLOT /COMPARE GROUPS /STATISTICS DESCRIPTIVES /CINTERVAL 95 /MISSING LISTWISE /NOTOTAL.
Resources	Processor Time	00:00:00.78
	Elapsed Time	00:00:00.52

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Happiness Score	3000	100.0%	0	0.0%	3000	100.0%

Descriptives

			Statistic	Std. Error
Happiness Score	Mean		5.395	.0467
	95% Confidence Interval for Mean	Lower Bound	5.304	
		Upper Bound	5.487	
	5% Trimmed Mean		5.385	

	Median	5.400	
	Variance	6.541	
	Std. Deviation	2.5576	
	Minimum	1.0	
	Maximum	10.0	
	Range	9.0	
	Interquartile Range	4.3	
	Skewness	.031	.045
	Kurtosis	-1.173	.089

Tests of Normality

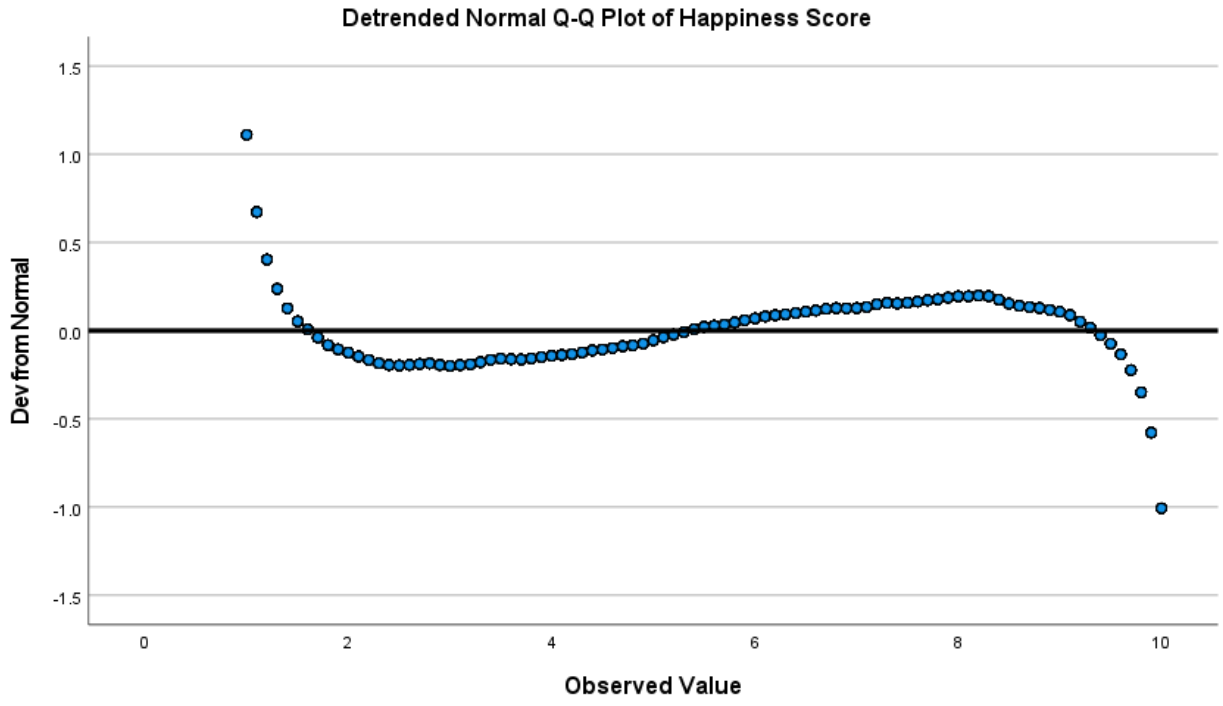
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Happiness Score	.063	3000	.000	.958	3000	.000

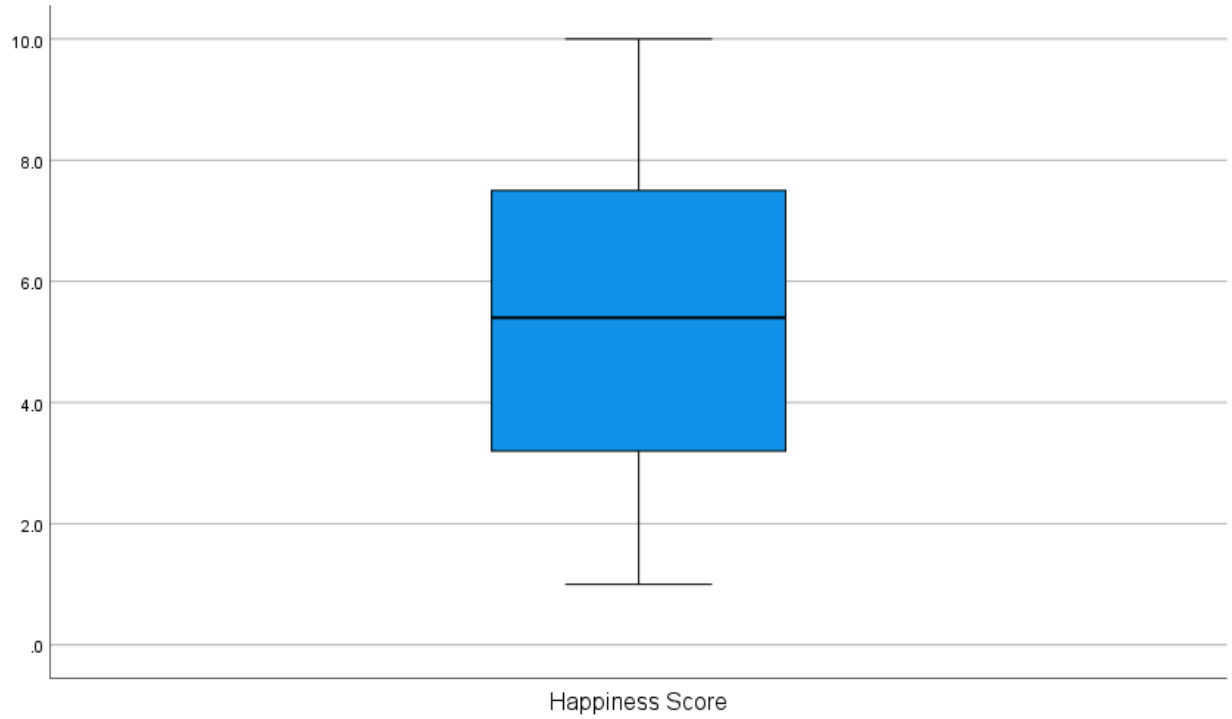
a. Lilliefors Significance Correction

Happiness Score

```
Happiness Score Stem-and-Leaf Plot

 Frequency    Stem &  Leaf

   156.00        1 .
00000011111111111111222222222222222222233333333333333333344444444444444444444
   169.00        1 .
55555555555555556666666666666667777777777777777777888888888888888889999999999999
   184.00        2 .
00000000000000000011111111111111111222222222222222222233333333333333333333444444444444
44444
   168.00        2 .
55555555555555566666666666667777777777777788888888888888899999999999999999999999
   143.00        3 .
00000000000000111111111111111122222222222223333333333334444444444444
   191.00        3 .
55555555555555555555566666666666666666666666677777777777777777788888888888888889999999999
99999999
   179.00        4 .
00000000000000000000111111111111111122222222222222222223333333333333344444444444444444
44
   179.00        4 .
55555555555555555555566666666666666677777777777777777788888888888888888888899999999999
99
   137.00        5 .
```

```
0000000000011111111111112222222222222223333333333333344444444444444
   176.00        5 .
555555555555555556666666666666666666666777777777777777788888888888899999999999999999
9
   183.00        6 .
000000000000000011111111111111112222222222222222222333333333333333333344444444444444
4444
   188.00        6 .
555555555555555556666666666666666666677777777777777888888888888888888888888999999999999
9999999
   172.00        7 .
000000000000000000001111111111111122222222223333333333333333333333344444444444444444
   142.00        7 .
555555555555555566666666666666677777777777777888888888888888999999999
   181.00        8 .
000000000000000000111111111111112222222222222333333333333333333334444444444444444444444
444
   152.00        8 .
555555555555555555566666666666666677777777777778888888888888999999999999999
   148.00        9 .
000000000001111111111111111112222222222222223333333333333334444444444444444
   138.00        9 .
555555555555666666666666667777777777777888888888888899999999999999
    14.00       10 .  0000000

 Stem width:  1.0
 Each leaf:        2 case(s)
```






```
SAVE TRANSLATE OUTFILE=\project\Mental_Health_Lifestyle.xlsx'
```

```
  /TYPE=XLS
  /VERSION=12
  /MAP
  /FIELDNAMES VALUE=NAMES
  /CELLS=VALUES
  /EXCELOPTIONS SHEET='Mental_health_lifestyle'
  /REPLACE.

Data written to \project\Mental_Health_Lifestyle.xlsx.
15 variables and 3000 cases written to range: SPSS.
Variable: Country            Type: String   Width:   9
Variable: Age                Type: Number   Width:   2   Dec: 0
Variable: Gender             Type: String   Width:   6
Variable: ExerciseLevel      Type: String   Width:   8
Variable: DietType           Type: String   Width:  10
Variable: SleepHours         Type: Number   Width:   4   Dec: 1
Variable: StressLevel        Type: String   Width:   8
Variable: MentalHealthCondition   Type: String   Width:  10
Variable: WorkHoursperWeek   Type: Number   Width:   2   Dec: 0
Variable: ScreenTimeperDayHours   Type: Number   Width:   3   Dec: 1
Variable: SocialInteractionScore   Type: Number   Width:   3   Dec: 1
Variable: HappinessScore     Type: Number   Width:   3   Dec: 1
Variable: Exercise_Level_Num   Type: Number   Width:   8   Dec: 2
Variable: StressLevel_Num    Type: Number   Width:   8   Dec: 2
Variable: Diet_Type_Num      Type: Number   Width:   8   Dec: 2
```