

Codebook, Notes on Edits and Analysis

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Codebook

Label for Variable	SPSS Variable	Coding Instructions
IDNumber	ID	Subject ID Number
What is your age (in years)?	Age	In years
Check one or more options for the set(s) of pronouns you want people to use to refer to you:	Gender	He, him, his - 1
		She, her, hers - 2
		Don't want to disclose - 3
What is your level of education?	Education	Diploma - 1
		Associate degree - 2
		Bachelor's Degree or equivalent (3 Years) - 3
		Bachelor's Degree or equivalent (4 years) - 4
		Postgraduate Diploma -5
		Graduate Certificate - 6
		Master's Degree - 7
		Professional Charter - 8
What is your marital status	Marital_Status	Single – 1
		Married - 2
		Common-law-partner- 3
How many kids do you have?	Children	None – 1
		One – 2
		Two or more - 3
What is your country of origin?	Country	Country 1 - 1
		Country 2 - 2
		Country 3 - 3
		Country 4 - 4
		Country 5 - 5
		Country 6 - 6
		Country 7 - 7
		Country 8 - 8
		Country 9 - 9

		Country 10 - 10
		Country 11 - 11
		Country 12 - 12
		Country 13 - 13
		Country 14 - 14
		Country 15 - 15
		Country 16 - 16
		Country 17 - 17
		Country 18 - 18
		Country 19 - 19
		Country 20 - 20
		Country 21 - 21
		Country 22 - 22
		Country 23 - 23
		Country 24 - 24
		Country 26 - 26
		Country 27 - 27
		Country 28 - 28
		Country 29 - 29
		Country 30 - 30
		Country 31 - 31
		Country 31 - 32
How many hours per week are you working?	WH_perweek	I don't work - 1
		Less than 5 hours - 2
		5-10 hours - 3
		11-15 hours - 4
		16-20 hours - 5
		21 -30 hours - 6
		31 - 40 hours - 7
		More than 40 hours - 8
I keep studying even when I receive tiredness signals from my body (e.g., continual yawning).	Studying(-ve)	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I skip my meals because I am busy with studies.	Skip_meats(-ve)	Almost always - 1
		Always - 2

		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I forget about drinking/hydrating myself unless I feel very thirsty.	Hydrating(-ve)	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I pay attention to nutritional replenishment when choosing food and drink to have for my meals.	Nutritional_Replenishment	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I get sufficient sleep to wake up feeling recovered.	Satisfaction_sleep	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I set aside some time for physical activities.	Physical_activities	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
		Did not do it – 8
		I used to hit – 9
I autonomously take regular breaks during my workday to renew and recharge.	Regular_Break	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4

		Sometimes - 5
		Seldom - 6
		Never - 7
I get physical exercise at designated times.	Physical_exercises	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
		Yes, but star -8
		I used to hit - 9
My food intake varies, such that I eat a lot some days but eat little on other days.	Food_Intake(-ve)	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I cannot go to bed at a designated time for many reasons.	Bed_Time(-ve)	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I treat people and things around me with gratitude.	People_Gratitude	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I directly praise and express appreciation of others.	Praise	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6

		Never - 7
I quickly overcome the impact of negative emotions.	Negative_emotions	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I appropriately control my emotions.	Control_Emotions	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I try to take a new perspective when I have issues at college.	Issues_college	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I look for meaning in what I have learned and worked on.	Meaning_in_work	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I seek feelings of satisfaction and achievement while studying and/or working.	Feelings_of_satisfaction	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I get motivated by imagining my future self doing work.	Motivated	Almost always - 1
		Always - 2
		Usually - 3

		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I get positive energy for my studies by reading additional material and inspirational stories.	Positive_Energy	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I do what I enjoy in my college program.	Enjoy_in_College	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I allocate my time and energy to doing the most important things.	Time_and_Energy	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
I act according to my core values (i.e., what I value the most) in my life.	Core_Values	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I use some strategies to purposefully reduce or avoid disruptions from outside my studies.	Strategies	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
		Almost always - 1

When I am interrupted during studying, I quickly switch attention back to the task at hand.	Interrupted_during_study	Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7
I do something else to refresh my mind when I find myself studying inefficiently.	Something_to_refresh	Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
I arrange my most efficient hours to do the most important work.	Most_efficient	Never - 7
		Almost always - 1
		Always - 2
		Usually - 3
		Often - 4
		Sometimes - 5
		Seldom - 6
		Never - 7

NOTES

Data Collection:

- The provided data file (dataset 1 & 2) were loaded into excel
- The questionnaires in the data sets were analysed and appropriate variable names were provided as mentioned in the codebook.
- Several functions such as UNIQUE, SORT and FILTER were used to explore the data and find patterns.

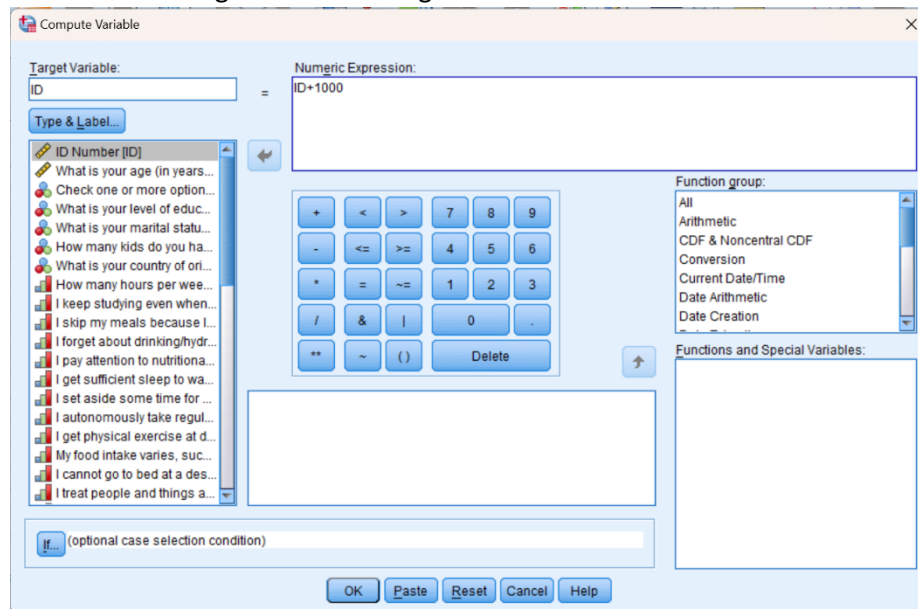
Categorising Variables:

- The survey questions were converted into variables and the categorical energy management variables were categorised into different types of energy management (physical, mental, emotional and spiritual)

Variable	Summated Category
Studying	Physical
Skip_meals	Physical
Hydrating	Physical
Nutritional_Replenishment	Physical
Satisfaction_sleep	Physical
Physical_activities	Physical
Regular_Break	Physical
Physical_exercises	Physical
Food_Intake	Physical
Bed_Time	Physical
People_Gratitude	Emotional
Praise	Emotional
Negative_emotions	Emotional
Control_Emotions	Emotional
Core_Values	Spiritual
Meaning_in_work	Spiritual
Feelings_of_satisfaction	Spiritual
Motivated	Mental
Positive_Energy	Mental
Enjoy_in_College	Mental
Time_and_Energy	Mental
Issues_college	Mental
Strategies	Mental
Interrupted_during_study	Mental
Something_to_refresh	Mental
Most_efficient	Mental

Data Cleaning & Manipulation:

- The data files were loaded to SPSS as two different datasets.
- **Recode ID Numbers:** The ID numbers in Dataset 2 were recoded by adding 1000 to the IDs before merging the datasets.
 - o The IDs were recoded using TRANSFORM > COMPUTE, and the existing variables where the existing IDs were changed.



- The datasets were merged using DATA > MERGE FILES > ADD CASES

Missing Values

- The missing values were identified and the cases with missing values were removed for data consistency. Total of 22 rows corresponding to the following IDs with missing values was removed:
41,51,54,55,59,64,87,88,90,1003,1007,1020,1071,1078,1084, 1112,1119

Data Cleaning

Whalsayour geinyers	Checkyourformoreof otherstheopronounsyou wantbeclosetostorof	Whalsayourlevelofeducation	Whalsayour umarrtals status	
She, her, hers		Bachelor's Degree or equivalent (4 years)	Married	On
She, her, hers		Master's Degree	Married	TV
He, him, his		Bachelor's Degree or equivalent (4 years)	Married	TV
She, her, hers		Bachelor's Degree or equivalent (3 years)	Single	Ne
Don't want to disclose		Bachelor's Degree or equivalent (4 years)	Single	Ne
21 He, him, his		Bachelor's Degree or equivalent (3 years)	Single	Ne
21 She, her, hers		Bachelor's Degree or equivalent (3 years)	Single	Ne
21 He, him, his		Bachelor's Degree or equivalent (3 years)	Single	Ne
21 He, him, his		Bachelor's Degree or equivalent (3 years)	Single	Ne
21 He, him, his		Bachelor's Degree or equivalent (3 years)	Single	Ne
21 He, him, his		Bachelor's Degree or equivalent (3 years)	Single	Ne
22 He, him, his		Bachelor's Degree or equivalent (4 years)	Single	Ne
22 She, her, hers		Bachelor's Degree or equivalent (3 years)	Single	Ne
22 She, her, hers		Bachelor's Degree or equivalent (3 years)	Single	Ne
22 He, him, his		Bachelor's Degree or equivalent (3 years)	Single	Ne
22 He, him, his		Bachelor's Degree or equivalent (3 years)	Single	Ne

To clean the data:

Identified the missing values and deleted them using descriptive analysis. (Data>> Sort cases)

Recoding Variables for data consistency:

- The following categories were recoded in the respective variables to ensure consistency in the analysis:
 - "Yes, but star" was changed to "Usually"
 - "I used to hit" was changed to "Seldom"
 - "Did not do it" was changed to "Never"
- All of the variables had categories as follows

Category	Value
Almost always	1
Always	2
Usually	3
Often	4
Sometimes	5
Seldom	6
Never	7

- Two of the variables had different categories on top of the common ones as follows.

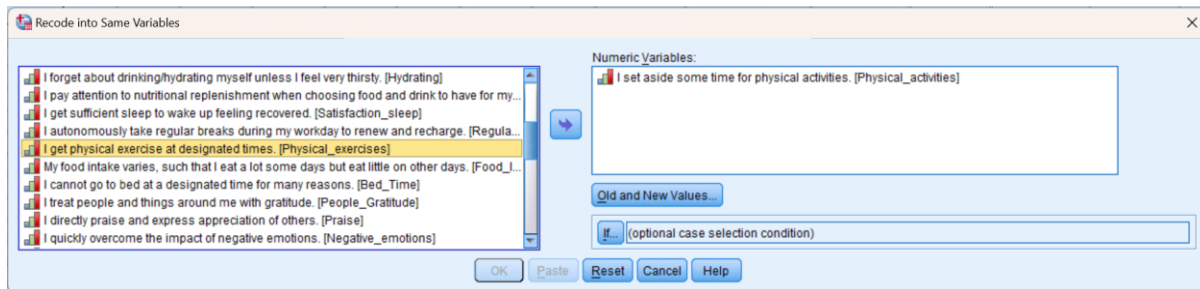
Physical_activities			Physical_exercises		
Category	Value	Count	Category	Value	Count
Almost always	1	13	Almost always	1	6
Always	2	13	Always	2	10
Usually	3	17	Usually	3	16
Often	4	24	Often	4	23
Sometimes	5	61	Sometimes	5	44
Seldom	6	37	Seldom	6	45
Never	7	29	Never	7	50
Did not do it	8	1	Yes, but star	8	1
I used to hit	9	1	I used to hit	9	1

- The following categories were recoded in the respective variables as follows to ensure consistency in the analysis.

Category	Value	Changed to Category	Changed to Value
----------	-------	---------------------	------------------

Yes, but star	8	Usually	3
I used to hit	9	Seldom	6
Did not do it	8	Never	7

- Steps: TRANSFORM -> RECODE INTO SAME VARIABLE -> SELECT VARIABLE -> OLD AND NEW VARIABLE



Recode into Same Variables

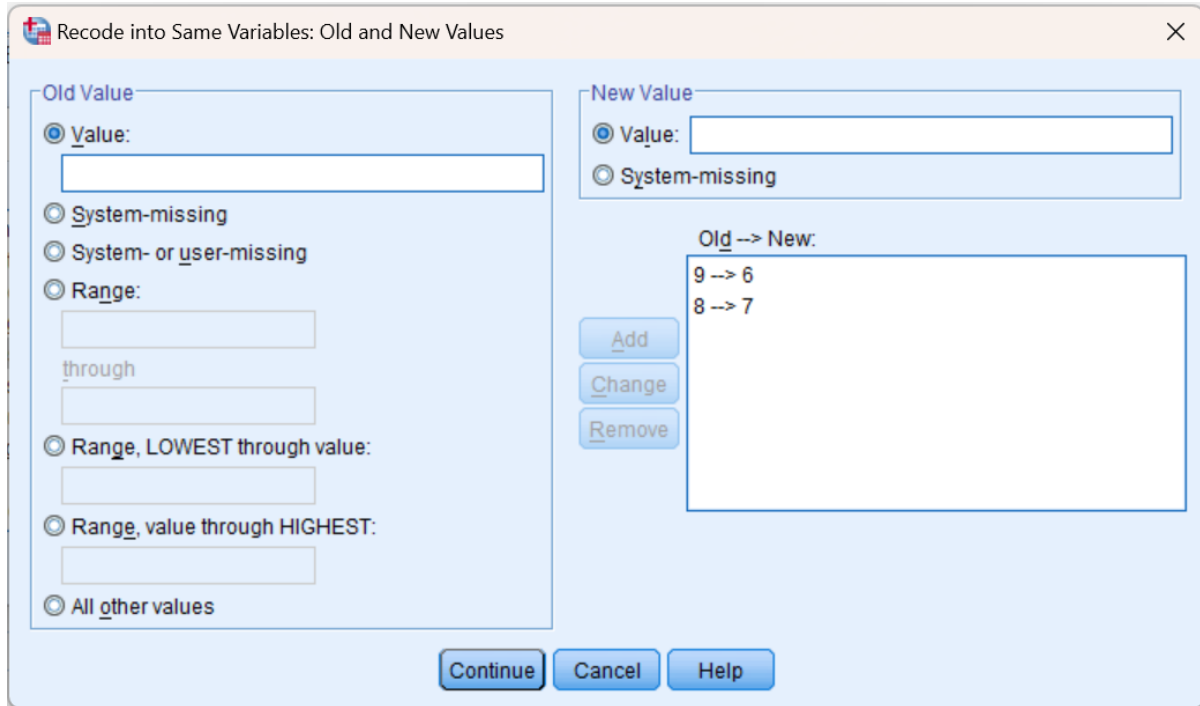
Variable list: I forget about drinking/hydrating myself unless I feel very thirsty. [Hydrating], I pay attention to nutritional replenishment when choosing food and drink to have for my..., I get sufficient sleep to wake up feeling recovered. [Satisfaction_sleep], I autonomously take regular breaks during my workday to renew and recharge. [Regula...], **I get physical exercise at designated times. [Physical_exercises]**, My food intake varies, such that I eat a lot some days but eat little on other days. [Food_I...], I cannot go to bed at a designated time for many reasons. [Bed_Time], I treat people and things around me with gratitude. [People_Gratitude], I directly praise and express appreciation of others. [Praise], I quickly overcome the impact of negative emotions. [Negative_emotions]

Numeric Variables: I set aside some time for physical activities. [Physical_activities]

Old and New Values:

If... (optional case selection condition)

OK Paste Reset Cancel Help



Recode into Same Variables: Old and New Values

Old Value

☒ Value:

☐ System-missing

☐ System- or user-missing

☐ Range:

through

☐ Range, LOWEST through value:

☐ Range, value through HIGHEST:

☐ All other values

New Value

☒ Value:

☐ System-missing

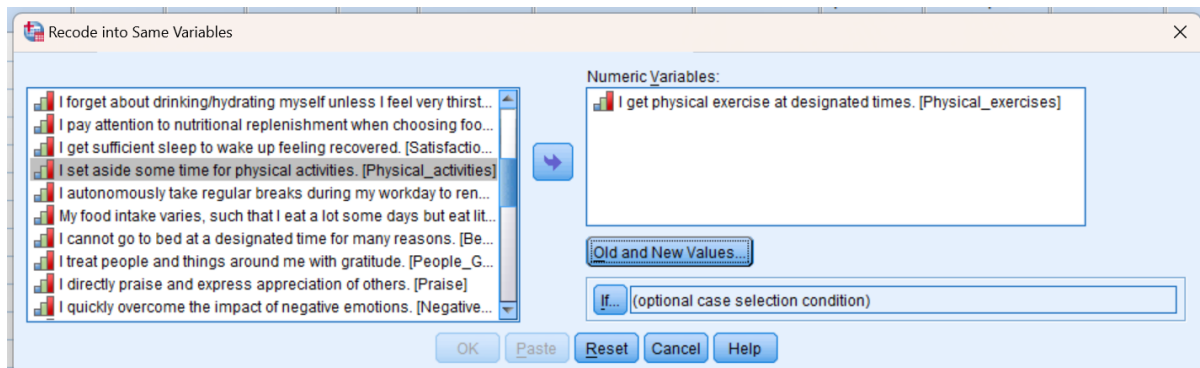
Old --> New:

9 --> 6

8 --> 7

Add Change Remove

Continue Cancel Help



Recode into Same Variables

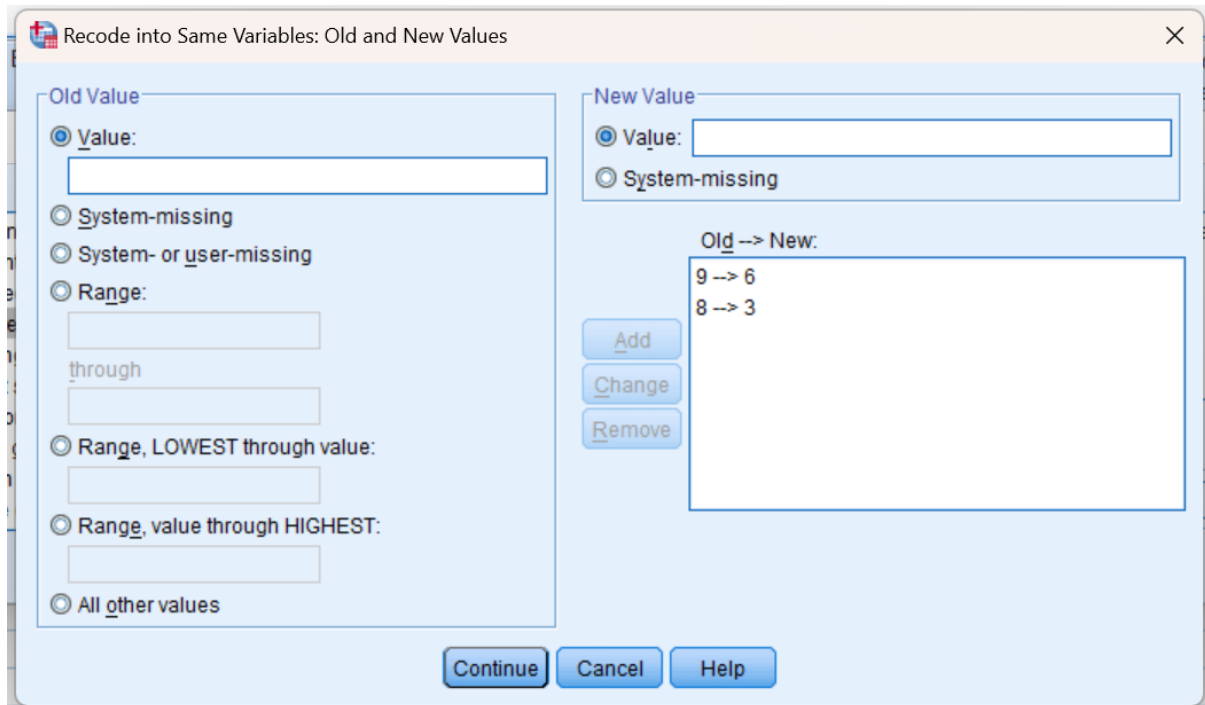
Variable list: I forget about drinking/hydrating myself unless I feel very thirst..., I pay attention to nutritional replenishment when choosing foo..., I get sufficient sleep to wake up feeling recovered. [Satisfactio...], **I set aside some time for physical activities. [Physical_activities]**, I autonomously take regular breaks during my workday to ren..., My food intake varies, such that I eat a lot some days but eat lit..., I cannot go to bed at a designated time for many reasons. [Be..., I treat people and things around me with gratitude. [People_G..., I directly praise and express appreciation of others. [Praise], I quickly overcome the impact of negative emotions. [Negative...]

Numeric Variables: I get physical exercise at designated times. [Physical_exercises]

Old and New Values:

If... (optional case selection condition)

OK Paste Reset Cancel Help



Recoded the values for the negatively worded statements

STEPS : Transform>Recoded into different variables

The following reversed variables were created:

- R_studying
- R_Skip_meals
- R_Hydrating
- R_Food_intake
- R_Bed_Time

SPSS Recode into Different Variables: Old and New Values

Old Value

☒ Value:

☐ System-missing

☐ System- or user-missing

☐ Range:

through

☐ Range, LOWEST through value:

☐ Range, value through HIGHEST:

☐ All other values

New Value

☒ Value:

☐ System-missing

☐ Copy old value(s)

Old --> New:

7 --> 1

6 --> 2

5 --> 3

4 --> 4

3 --> 5

2 --> 6

1 --> 7

Add

Change

Remove

☐ Output variables are strings Width:

☐ Convert numeric strings to numbers ('5'-->5)

Continue Cancel Help

SPSS Recode into Different Variables

How many kids do you have? [Children]

What is your country of origin? [Country]

How many hours per week are you working? [WH_per...]

I pay attention to nutritional replenishment when choo...

I get sufficient sleep to wake up feeling recovered. [Sat...]

I set aside some time for physical activities. [Physical_...]

I autonomously take regular breaks during my workda...

I get physical exercise at designated times. [Physical_...]

I treat people and things around me with gratitude. [Pe...]

I directly praise and express appreciation of others. [Pr...]

I quickly overcome the impact of negative emotions. [N...]

I appropriately control my emotions. [Control_Emotions]

I try to take a new perspective when I have issues at co...

I look for meaning in what I have learned and worked o...

Numeric Variable -> Output Variable:

Studying --> ?

Food_Intake --> ?

Hydrating --> ?

Bed_Time --> ?

Skip_meals --> ?

Old and New Values...

If... (optional case selection condition)

OK Paste Reset Cancel Help

Output Variable

Name:

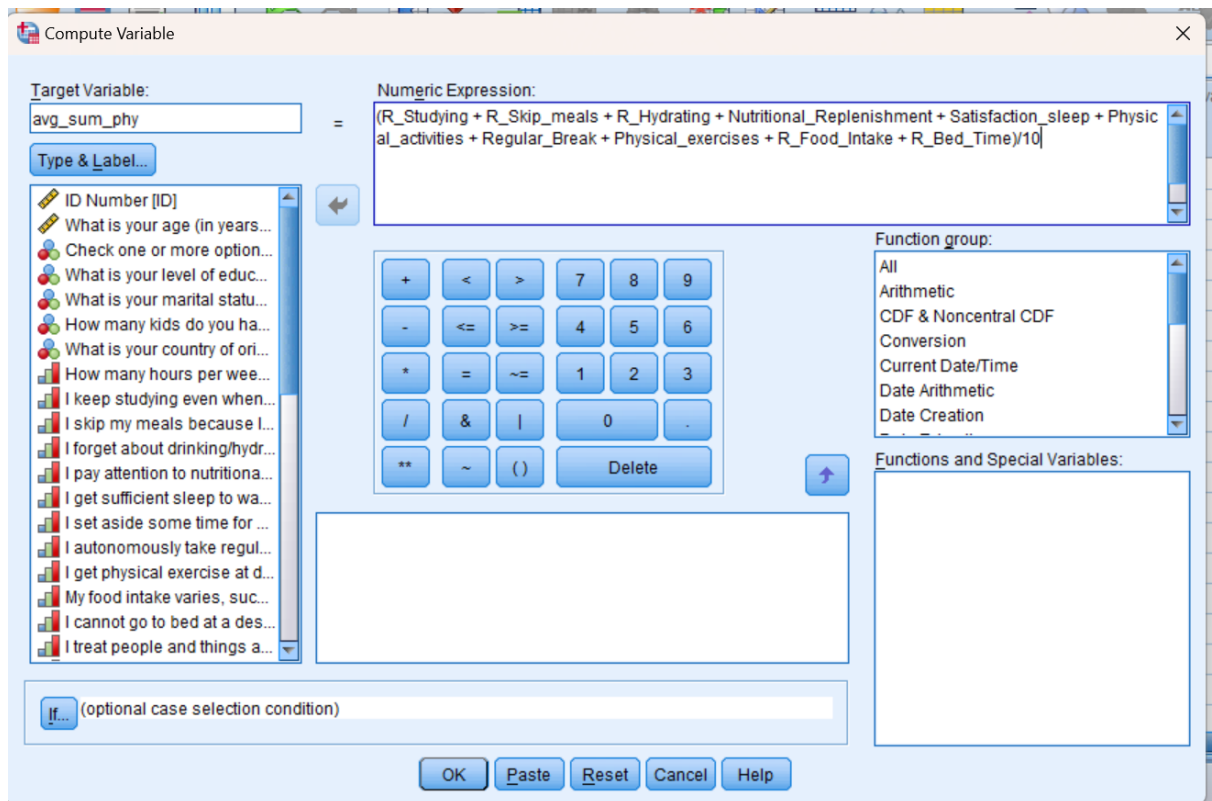
Label:

Change

Creating summated scales:

Created individual summated scales for physical energy management skills, emotional energy management skills, mental energy management skills and for spiritual energy management skills and total energy management skills.

- The summated scales was created with respect to the categories mentioned above.
- STEPS: TRANSFORM > COMPUTE VARIABLES

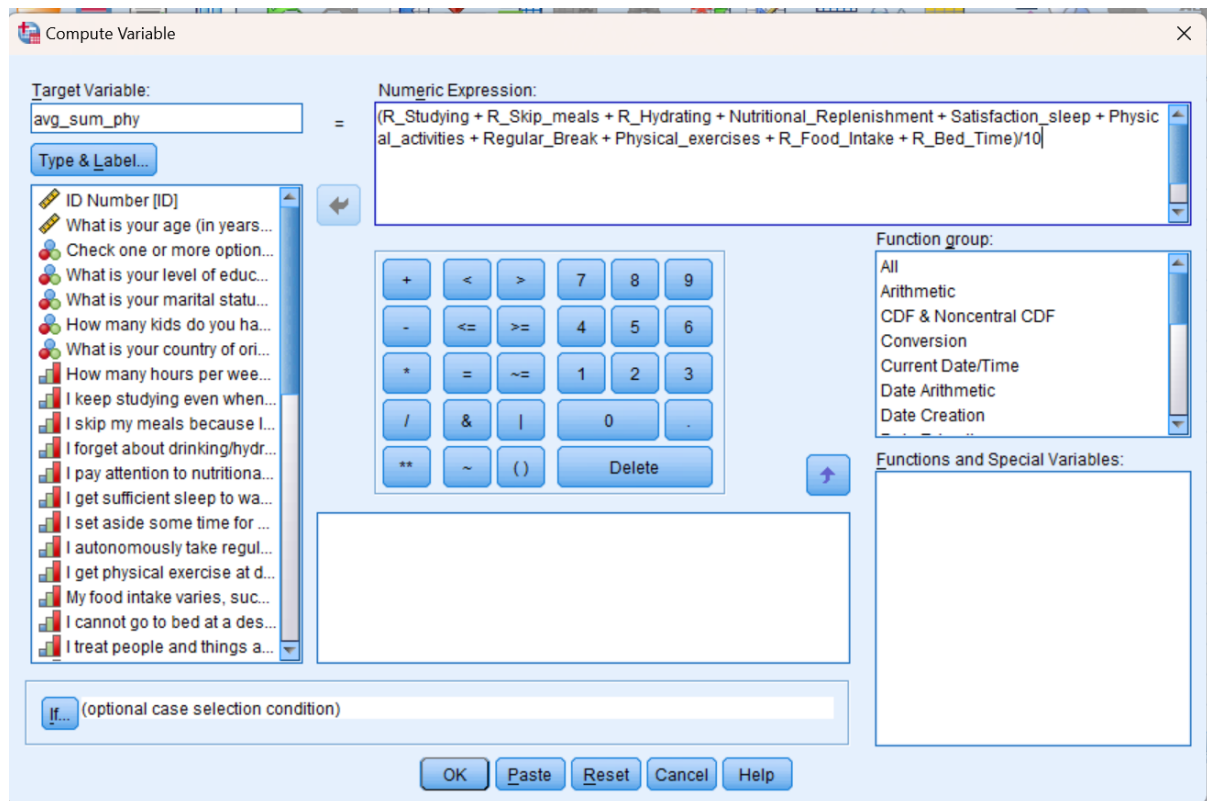


- The following summated variables were created
 - sum_mental
 - sum_emotional
 - sum_spiritual
 - sum_total

Creating average summated scales:

Created individual average summated scales for physical energy management skills, emotional energy management skills, mental energy management skills and for spiritual energy management skills and total energy management skills.

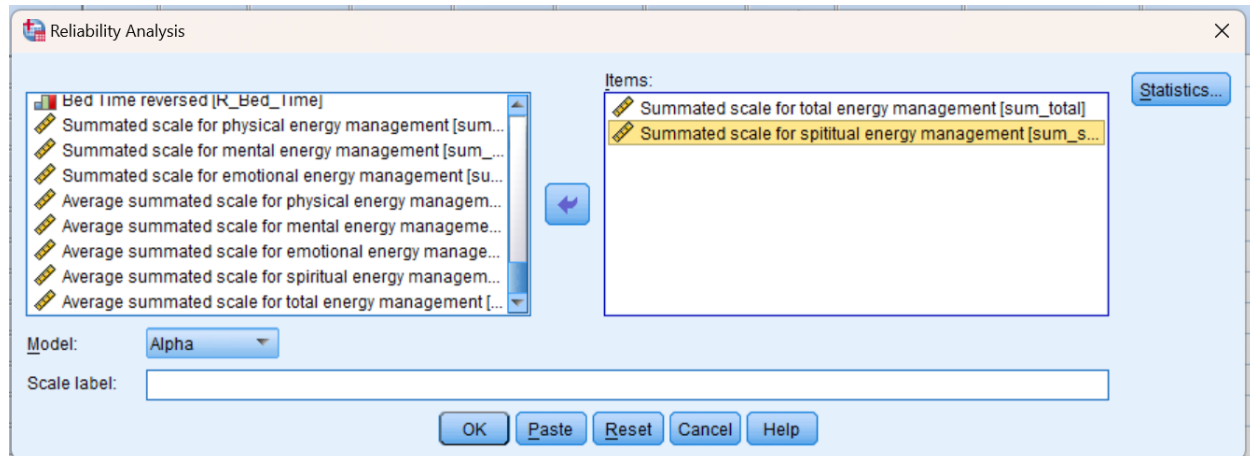
- The summated scales were created with respect to the categories mentioned above.
- STEPS: TRANSFORM > COMPUTE VARIABLES



- The following summated variables were created
 - avg_sum_phy
 - avg_sum_men
 - avg_sum_emo
 - avg_sum_spi
 - avg_sum_total

Reliability Analysis on summated scales

- Conduct a reliability analysis for each of the scales (including the individual summated scales - physical energy, emotional energy, mental energy, and spiritual energy and the total averaged summated scale).
- STEPS: ANALYZE > SCALE > RELIABILITY ANALYSIS > select variables > STATISTICS > MODEL(ALPHA) > OK



- Results for reliability analysis for summated variables:
 - o Summated physical energy to total energy management=0.727

Reliability Statistics

Cronbach's Alpha	N of Items
.727	2

- o Summated mental energy to total energy management=0.746

Reliability Statistics

Cronbach's Alpha	N of Items
.746	2

- o Summated emotional energy to total energy management=0.423

Reliability Statistics

Cronbach's Alpha	N of Items
.423	2

- o Summated spiritual energy to total energy management=0.431

Reliability Statistics

Cronbach's Alpha	N of Items
.431	2

Cronbach's Alpha is a statistical measure used to assess the internal consistency reliability of a set of survey items or scale. The commonly accepted threshold for Cronbach's Alpha is 0.7. Values above this threshold suggest that the scale has acceptable internal consistency reliability, meaning that the items in the scale are correlated and are measuring the same underlying construct.

- **Physical Energy to Total Energy Management:** The Cronbach's Alpha is **0.727**, indicates a good level of internal consistency for the 2-item scale. This means the items are closely related as a group and likely measure the same underlying concept.
- **Mental Energy to Total Energy Management:** The Cronbach's Alpha is **0.746**, also indicates a good level of internal consistency for the 2-item scale.
- **Emotional Energy to Total Energy Management:** The Cronbach's Alpha is **0.423**. This value is considered low, suggesting that the items may not be strongly related, or they may not measure the same underlying concept.
- **Spiritual Energy to Total Energy Management:** The Cronbach's Alpha is **0.431**, which is also considered low, indicating that the items may not be strongly related.

Reliability Analysis: Statistics

Descriptives for

- ☐ Item
- ☒ Scale
- ☒ Scale if item deleted

Inter-Item

- ☒ Correlations
- ☐ Covariances

Summaries

- ☐ Means
- ☐ Variances
- ☐ Covariances
- ☒ Correlations

ANOVA Table

- ☒ None
- ☐ F test
- ☐ Friedman chi-square
- ☐ Cochran chi-square

☐ Hotelling's T-square

☐ Tukey's test of additivity

☐ Intraclass correlation coefficient

Model: Two-Way Mixed

Type: Consistency

Confidence interval: 95 %

Test value: 0

Continue Cancel Help

Inter-Item Correlation Matrix

	Summated scale for physical energy management	Summated scale for mental energy management	Summated scale for emotional energy management	Summated scale for spiritual energy management	Summated scale for total energy management
Summated scale for physical energy management	1.000	.267	.182	.080	.695
Summated scale for mental energy management	.267	1.000	.508	.701	.829
Summated scale for emotional energy management	.182	.508	1.000	.477	.636
Summated scale for spiritual energy management	.080	.701	.477	1.000	.662
Summated scale for total energy management	.695	.829	.636	.662	1.000

Correlation coefficients measure the strength and direction of the relationship between two variables. The values of correlation coefficients range from -1 to 1.

A correlation coefficient of 1 indicates a perfect positive correlation, meaning that both variables move in the same direction together .

A correlation coefficient of -1 indicates a perfect negative correlation, meaning that as one variable increases, the other variable decreases.

A correlation coefficient of 0 suggests no linear relationship between the variables.

Here's a brief interpretation of the matrix:

- The Summated scale for physical energy management has a strong positive correlation with the Summated scale for total energy management (0.695), indicating that they tend to increase or decrease together.
- The Summated scale for mental energy management has a very strong positive correlation with the Summated scale for total energy management (0.829), suggesting a strong relationship between these two scales.
- The Summated scale for emotional energy management and the Summated scale for spiritual energy management have moderate positive correlations with the Summated scale for total energy management (0.636 and 0.662 respectively).
- The Summated scale for spiritual energy management has the lowest correlation with the Summated scale for physical energy management (0.080), indicating a weak relationship.

- Additional results:

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.504	.080	.829	.748	10.318	.059	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Summated scale for physical energy management	133.88	821.561	.516	.	.730
Summated scale for mental energy management	149.48	809.266	.740	.	.675
Summated scale for emotional energy management	163.48	1016.548	.562	.	.759
Summated scale for spiritual energy management	164.90	1012.139	.594	.	.756
Summated scale for total energy management	87.39	291.583	1.000	.	.599

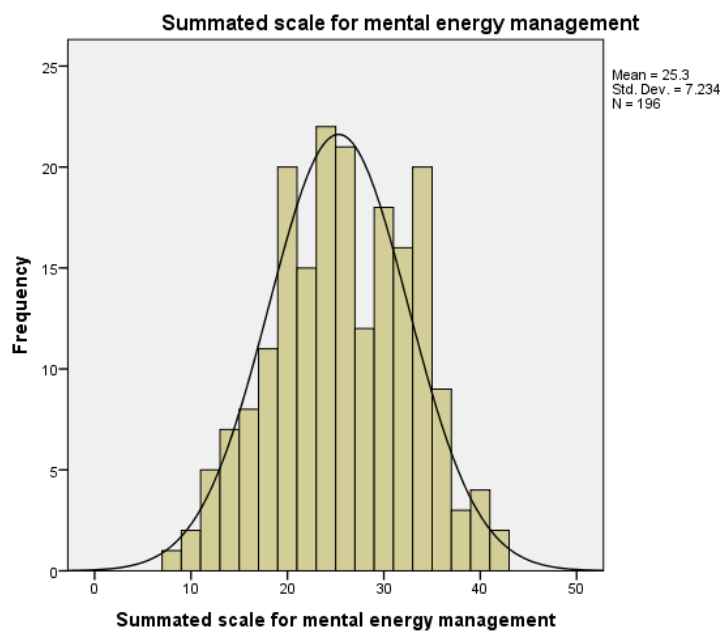
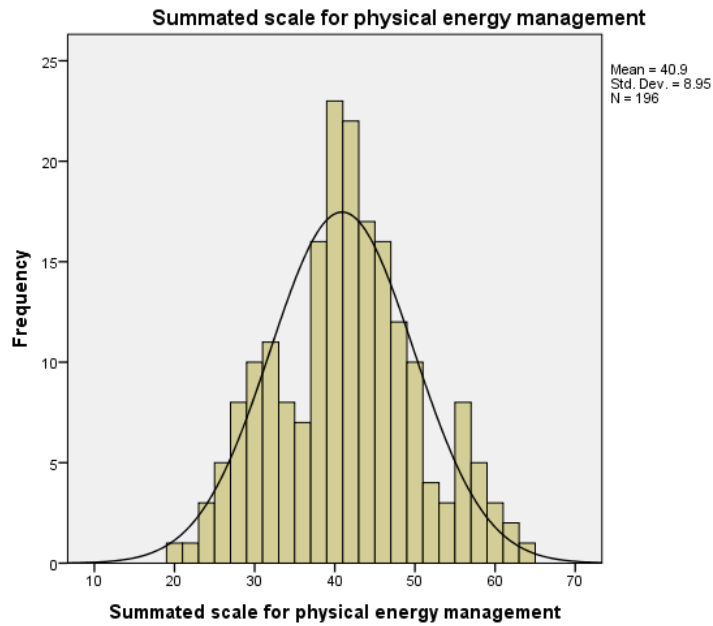
Scale Statistics

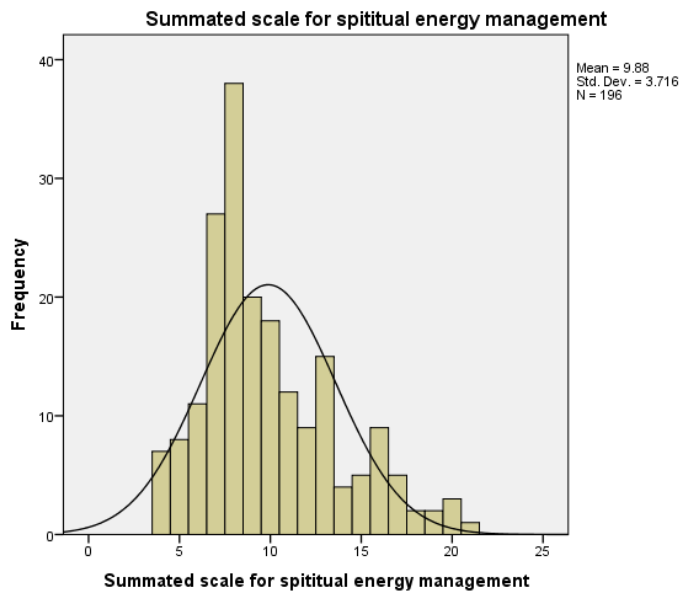
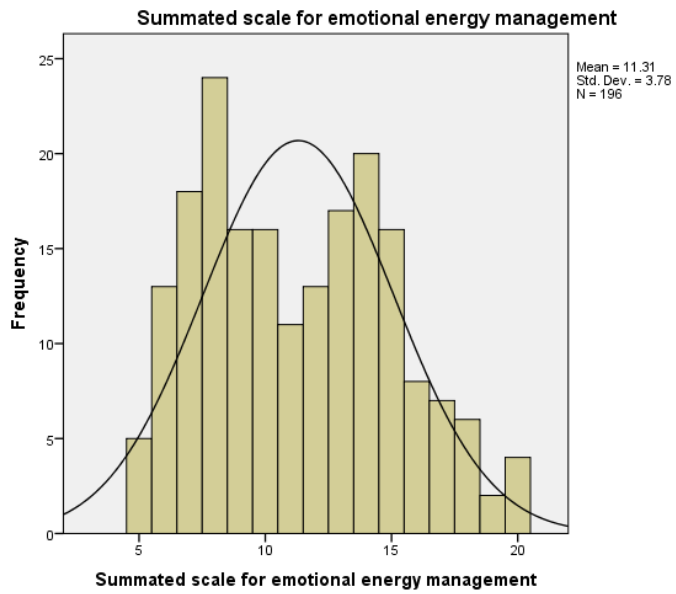
Mean	Variance	Std. Deviation	N of Items
174.79	1166.333	34.152	5

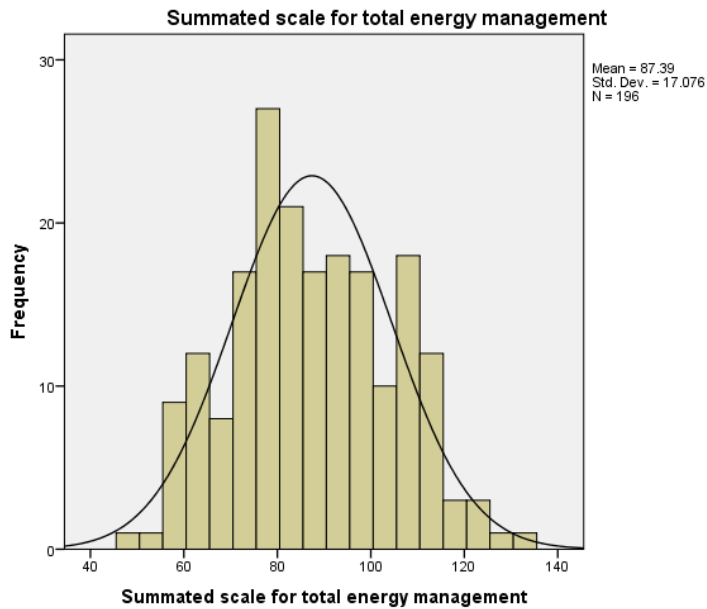
Normality of summated scales

Method 1 : Using Histogram

If the histogram shows a symmetrical distribution, it supports the assumption of normality.







Method 2: Skewness and Kurtosis:

For a normal distribution, both should be about 0.

Statistics

		Summated scale for physical energy management	Summated scale for mental energy management	Summated scale for emotional energy management	Summated scale for spiritual energy management	Summated scale for total energy management
N	Valid	196	196	196	196	196
	Missing	0	0	0	0	0
Mean		40.90	25.30	11.31	9.88	87.39
Median		41.00	25.00	11.00	9.00	86.00
Skewness		.122	-.070	.289	.861	.161
Std. Error of Skewness		.174	.174	.174	.174	.174
Kurtosis		-.267	-.577	-.842	.244	-.551
Std. Error of Kurtosis		.346	.346	.346	.346	.346

- **Mean:** This is the average score for each scale. For example, the average score for the Summated scale for physical energy management is 40.90.
- **Median:** The median is the middle value in a data set. For all types of energy management, the median values are relatively close to their corresponding mean values, indicating a roughly symmetrical distribution of data.
- **Skewness:** It measures the asymmetry of the data distribution. A positive skewness value means the distribution is skewed to the right, while a negative value means it's skewed to the left. For example, the Summated scale for spiritual energy management has a positive skewness of 0.861, indicating a right-skewed distribution.

- Kurtosis: It measures the “tailedness” of the data distribution. A positive kurtosis value indicates a distribution with heavy tails and a sharp peak (leptokurtic), while a negative value indicates a distribution with light tails and a flat peak.
For example, the Summated scale for emotional energy management has a negative kurtosis of -0.842, indicating a platykurtic (flat peak) distribution.

Reliability Analysis on average summated scales

- Conduct a reliability analysis for each of the scales (including the individual averaged summated scales - physical energy, emotional energy, mental energy, and spiritual energy and the total averaged summated scale).
- STEPS: ANALYZE > SCALE > RELIABILITY ANALYSIS > select average summated variables > STATISTICS > MODEL(ALPHA) > OK
- Results for reliability analysis for average summated variables:
 - Average summated physical energy to average summated total energy management = 0.797

Reliability Statistics

Cronbach's Alpha	N of Items
.797	2

- Average summated mental energy to average summated total energy management = 0.260

Reliability Statistics

Cronbach's Alpha	N of Items
.260	2

- Average summated emotional energy to average summated total energy management = 0.353

Reliability Statistics

Cronbach's Alpha	N of Items
.353	2

- Average summated spiritual energy to average summated total energy management=0.370

Reliability Statistics

Cronbach's Alpha	N of Items
.370	2

Cronbach's Alpha is a statistical measure used to assess the internal consistency reliability of a set of survey items or scale. The commonly accepted threshold for Cronbach's Alpha is 0.7. Values above this threshold suggest that the scale has acceptable internal consistency reliability, meaning that the items in the scale are correlated and are measuring the same underlying construct (Frost, 2024).

- **Average Summated Physical Energy to Average Summated Total Energy Management:** The Cronbach's Alpha is **0.797**, which indicates a good level of internal consistency for your 2-item scale. This means the items are closely related as a group and likely measure the same underlying concept.
- **Average Summated Mental Energy to Average Summated Total Energy Management:** The Cronbach's Alpha is **0.260**. This value is considered low, suggesting that the items may not be strongly related or they may not measure the same underlying concept.
- **Average Summated Emotional Energy to Average Summated Total Energy Management:** The Cronbach's Alpha is **0.353**. This value is also considered low, indicating that the items may not be strongly related.
- **Average Summated Spiritual Energy to Average Summated Total Energy Management:** The Cronbach's Alpha is **0.370**, which is also considered low, indicating that the items may not be strongly related.

The image shows a screenshot of the 'Reliability Analysis: Statistics' dialog box in SPSS. The dialog box is titled 'Reliability Analysis: Statistics' and has a close button (X) in the top right corner. It contains several sections with checkboxes and radio buttons for selecting statistical options. The 'Descriptives for' section has checkboxes for 'Item', 'Scale' (checked), and 'Scale if item deleted' (checked). The 'Inter-Item' section has checkboxes for 'Correlations' (checked) and 'Covariances'. The 'Summaries' section has checkboxes for 'Means', 'Variances', 'Covariances', and 'Correlations' (checked). The 'ANOVA Table' section has radio buttons for 'None' (selected), 'F test', 'Friedman chi-square', and 'Cochran chi-square'. Below these sections are checkboxes for 'Hotelling's T-square', 'Intraclass correlation coefficient', and 'Tukey's test of additivity'. At the bottom, there are dropdown menus for 'Model' (set to 'Two-Way Mixed') and 'Type' (set to 'Consistency'). There are also input fields for 'Confidence interval' (set to 95 %) and 'Test value' (set to 0). At the very bottom are three buttons: 'Continue', 'Cancel', and 'Help'.

Inter-Item Correlation Matrix

	Average summated scale for physical energy management	Average summated scale for mental energy management	Average summated scale for emotional energy management	Average summated scale for spiritual energy management	Average summated scale for total energy management
Average summated scale for physical energy management	1.000	.267	.182	.080	.695
Average summated scale for mental energy management	.267	1.000	.508	.701	.829
Average summated scale for emotional energy management	.182	.508	1.000	.477	.636
Average summated scale for spiritual energy management	.080	.701	.477	1.000	.662
Average summated scale for total energy management	.695	.829	.636	.662	1.000

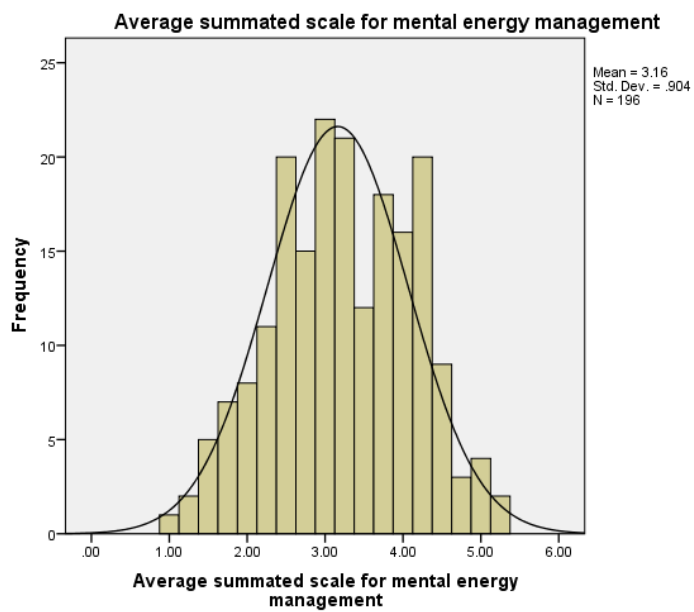
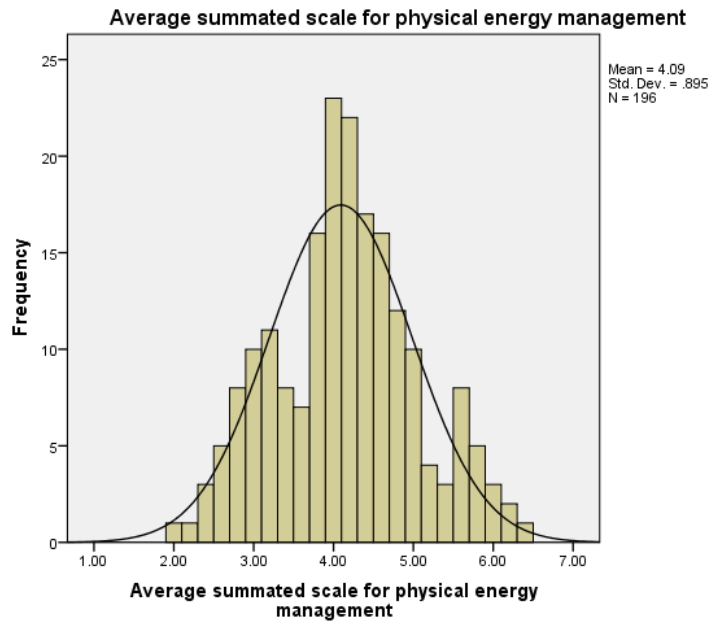
The correlation coefficients range from 0.080 to 1.000. A correlation coefficient of 1 indicates a perfect positive correlation, meaning that both variables move in the same direction together. On the other hand, a lower correlation coefficient, like 0.080, suggests a weaker relationship between the variables (Frost, 2024).

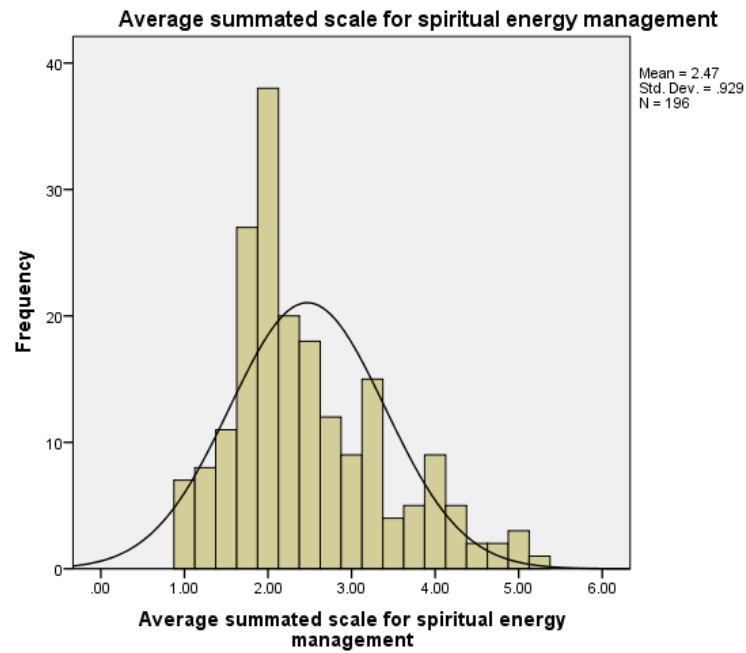
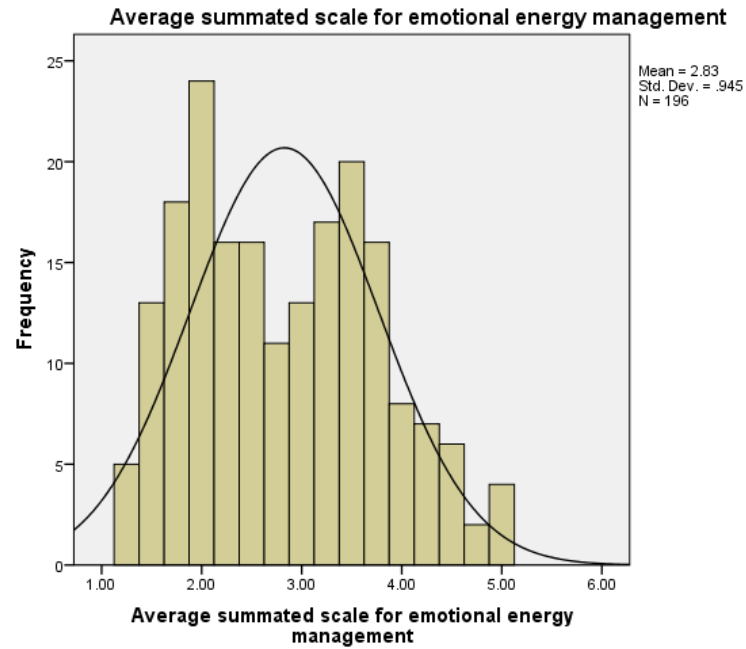
- The Average summated scale for physical energy management has a strong positive correlation with the Average summated scale for total energy management (0.695), indicating that they tend to increase or decrease together.
- The Average summated scale for mental energy management has a very strong positive correlation with the Average summated scale for total energy management (0.829), suggesting a strong relationship between these two scales.
- The Average summated scale for emotional energy management and the Average summated scale for spiritual energy management have moderate positive correlations with the Average summated scale for total energy management (0.636 and 0.662 respectively).
- The Average summated scale for spiritual energy management has the lowest correlation with the Average summated scale for physical energy management (0.080), indicating a weak relationship.

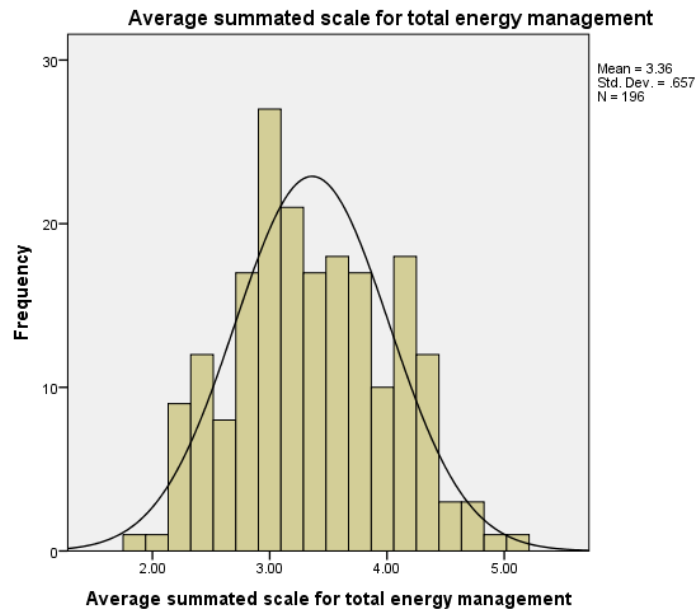
Normality of average summated scales

Method 1 : Using Histogram

If the histogram shows a symmetrical distribution, it supports the assumption of normality.







Method 2: Skewness and Kurtosis:

For a normal distribution, both should be about 0.

Statistics

		Average summated scale for physical energy management	Average summated scale for mental energy management	Average summated scale for emotional energy management	Average summated scale for spiritual energy management	Average summated scale for total energy management
N	Valid	196	196	196	196	196
	Missing	0	0	0	0	0
Mean		4.0903	3.1626	2.8265	2.4707	3.3613
Median		4.1000	3.1250	2.7500	2.2500	3.3077
Skewness		.122	-.070	.289	.861	.161
Std. Error of Skewness		.174	.174	.174	.174	.174
Kurtosis		-.267	-.577	-.842	.244	-.551
Std. Error of Kurtosis		.346	.346	.346	.346	.346

- **Mean:** This is the average score for each scale. For example, the average score for the Average summated scale for physical energy management is 4.0903. This suggests that, on average, the highest energy management score is for physical energy and the lowest is for spiritual energy.
- **Median:** The **median** is the middle value in a data set. For all types of energy management, the median values are relatively close to their corresponding mean values, indicating a roughly symmetrical distribution of data.

- **Skewness:** It measures the asymmetry of the data distribution. A positive skewness value means the distribution is skewed to the right, while a negative value means it's skewed to the left. The skewness values for physical, mental, emotional, spiritual, and total energy management are .122, -.070, .289, .861, and .161 respectively. This suggests that the distribution of scores for spiritual energy management is significantly skewed to the right.
- **Kurtosis:** It measures the "tailedness" of the data distribution. A positive kurtosis value indicates a distribution with heavy tails and a sharp peak, while a negative value indicates a distribution with light tails and a flat peak. The kurtosis values for physical, mental, emotional, spiritual, and total energy management are -.267, -.577, -.842, .244, and -.551 respectively. This suggests that the distributions for mental, emotional, and total energy management are platykurtic, while the distribution for spiritual energy management is closer to a normal distribution.

Comparative analysis on Reliability of Summated scales on Energy Management:

Energy Scale	Cronbach's Alpha Sample Value (P.2091) (dataset 1)	Cronbach's Alpha Value (Dataset2)
Physical	.72	.727
Emotional	.79	.423
Spiritual	.64	.431
Mental	.79	.746

Based on the above comparison, the energy scales of sample value give us good internal consistency with Physical, Emotional and Mental scales as the Cronbach's Alpha values given are above the threshold value of 0.7. On the other hand, our analysis on the provided dataset gives us a good internal consistency for Physical and Mental scales as 0.727 and 0.746 are greater than the threshold value of 0.7.

Comparative analysis on Reliability of Average Summated scales of Energy Management:

Energy Scale	Cronbach's Alpha Sample Value (P.2091)	Cronbach's Alpha Value
Physical	.72	.797
Emotional	.79	.353
Spiritual	.64	.370
Mental	.79	.260

Based on the above comparison, the energy scales of sample value give us good internal consistency with Physical, Emotional and Mental scales as the Cronbach's Alpha values given are above the threshold value of 0.7. On the other hand, our analysis on the provided dataset gives us a good internal consistency only for Physical scale as 0.797 is greater than the threshold value of 0.7.