The link between lifestyle, well-being domains, and lived experiences: A 14-day self-study.

ABSTRACT

This study aimed to discover a relationship between self-reported values within the lifestyle and well-being domains. In addition, this study sought to establish a correlation between self-reported optimism and happiness and daily lived experiences. Current literature discovered a reciprocal and correlational relationship between independent variable of sleep quality, and the dependent variables of physical activity, diet quality, perceived stress. Though a case study mixed methods design which utilized Likert scales and diary entries, self-reported data of sleep quality, physical activity, diet quality, perceived stress, optimism, and happiness as well as daily lived experiences were recorded over a period of 14 days. The reported data indicated associations between the independent variables and the dependent variables. As well as established conflict, social interactions, self-care, and daily tasks as dominant themes throughout the daily lived experiences which positively correlated with the quantitative measures of optimism and happiness. The study is limited by its case study design, self-reported data, and small sample size. Further research should utilize an experimental design to limit issues with confirmability and transferability and to increase generalizability.

According to the National Institute of Health, more than 80% of college-aged students report losing quality sleep as an impact on their academics (Emerson, 2022). Sleep is essential for focus, concentration, physical and mental health, favourable outcomes, and other life factors (Centers for Disease Control and Prevention, 2019). I reflected on myself and my sleep habits and how these spread into other domains of my life. Additionally, I wanted to understand if other aspects of my lifestyle or well-being domains impacted my daily experiences. Lifestyle domains are sleep habits, dietary habits, physical activity, and social support. Well-being domains are defined as physical and psychological well-being. Each of these domains may or may not interact, impacting how they are expressed within a person's daily experiences. Through this understanding, I could develop interventions to support domain aspects which are failing and implement habits which could improve life and well-being outcomes. This study aimed to gain a personal perspective to understand better how lifestyle and well-being domains interact and, if they did interact, to determine if these interactions were positive or negative.

Literature Review

Given that the study participants are University age, much of the literature examined looks at sleep quality as reported by university students. The literature population consists of female participants aged 18-30. Keywords involved in this search include sleep quality college students, physical activity and sleep college students, sleep quality and diet college students and optimism and happiness of college students. The literature collected includes scoping reviews and peer-reviewed articles to draw out common themes concerning sleep quality.

Sleep quality and food consumption

A wealth of research discusses the links between sleep quality and food consumption. Lower diet quality leads to higher issues with sleep disorders and quality. Sleep also had a reciprocal relationship with diet quality, as a decline in sleep quality increased the consumption of unhealthy fats and sugar (Aslan Çin & Yardimci, 2021). Additionally, due to poorer sleep quality, university students tend to eat more snack foods and less healthy foods, resulting in issues in diet quality (Aslan Çin & Yardimci, 2021). The lack of consistent sleep timing and quality also disrupts mealtimes. Since students tend to sleep on inconsistent schedules, highly social meals such as lunch and dinner are skipped, which can impact the quality of diet and result in sleep quality issues (Carney et al., 2006). Heavier lunches and increased consumption of carbohydrates also induce sleepiness in humans which can impact sleep quality (Wang & Bíró, 2021). Moreover, there is a general theme of sleep deprivation and increased food intake (Chaput, 2014). All these components can reciprocate issues in both sleep quality and diet quality.

Sleep quality and physical activity

The research concerning sleep quality and physical activity is numerous. Physical activity and sleep are two behaviours which directly impact one another. Since sleep and physical activity take time during the day, a change in one is a decrease in the other domain or separate domains (Memon et al., 2021). Those with poor sleep quality had a more challenging time participating in consistent activities (Carney et al., 2006; Memon et al., 2021; Wang & Bíró, 2021), which impacted how much daily physical activity they could achieve. The literature review concerning the determinants of sleep quality shows a relationship between sleep quality and physical activity. Daily Physical activity overall improves sleep quality (Arbinaga et al., 2019; Pilcher et al., 1997). Those with less physical activity also suffer from more sleep disturbances and more significant dysfunction, further impacting their ability to participate in physical activity (Arbinaga et al., 2019). Physical activity also impacts anxiety and depression, which has a proven link to sleep quality (Amaral et al., 2018). University-level students who can perform high-intensity physical activity report better sleep quality (Arbinaga et al., 2019). This literature displays a causal relationship between physical activity and sleep quality.

Sleep quality and mental health

Sleep quality and mental health are linked. Stress, anxiety, and depression all impact sleep quality (Amaral et al., 2018; Becker et al., 2015; Dinis & Bragança, 2018; Ghrouz et al., 2019; Pilcher et al., 1997; Wang & Bíró, 2021). Those with poor sleep quality often report mental health issues such as mood disorder symptoms (Dinis & Bragança, 2018). Additionally, those with poor sleep quality mention issues with perceived stress, negative self-thought, and other negative thought processes such as self-blame (Becker et al., 2015). Variables contributing to stress, such as anxiety, depression, fatigue, and race, also impact sleep quality (Becker et al., 2015). Examining the literature shows a correlation between sleep quality and stress/mental health, in which the worse the sleep quality is, the worse the symptoms of stress and mental health get. Moreover, more stress within the day leads to a decrease in healthy mental health coping strategies, resulting in an issue of sleep quality (Becker et al., 2015).

Optimism and Happiness

There is an established link between optimism and happiness. Those more optimistic often also report more happiness and positive well-being (Yu & Luo, 2018). Optimism is a

strong indicator of stronger life satisfaction and positive interactions. Those with higher levels of optimism report fewer negative emotions leading to less negative life experiences (Demirtaş, 2020; Yu & Luo, 2018). Moreover, high optimism is associated with cognitive flexibility which allows for the adaptation to new and unexpected events (Demirtaş, 2020). Optimism has a positive correlation with mood, physical health, and mental wellness. Additionally, optimism results in better coping styles due to cognitive flexibility.

Gaps in Literature

Most of the literature reported the same gap using a cross-sectional study design and subjective measurements for all the categories. Most of the studies utilized a cross-sectional design which does not allow for determining a causal relationship (Memon et al., 2021). The studies could have been more consistent with the methods and participants recruited, which limits generalizability (Carney et al., 2006; Wang & Bíró, 2021). Since the data collected was often self-reported, there were issues with validity and reliability as the data required total honesty and objectivity when reporting. Other issues which could impact sleep quality were not included in the studies as they were outside the scope of the literature, which can also lead to false correlations (Arbinaga et al., 2019).

Research Question

I wanted to discover if there was any correlation between my sleep quality and other subdomains of life. Moreover, I wanted to see if there was a negative or positive correlation between my optimism, happiness and lived experiences for the day. Thus, I settled for the questions below for my study. 1. How does my sleep quality impact daily physical activity, diet quality and perceived stress?

2. Is my daily optimism and happiness rating correlated positively with my lived experiences entries?

Methods

Design

A case study mixed methods design was utilized to answer the above research questions. A case study design involves the in-depth study of one person over a period (Pilcher et al., 1997). Also, the data to be collected requires numerical data and written diary entries, so a mixed method data collection was implemented into the design. The reason behind this design is the ability to explore a phenomenon or experience within their daily contexts (Pilcher et al., 1997). This allows for the examination of causality between different lifestyle domains. Moreover, a mixed methods study is appropriate for this study as the purpose is to examine the links between happiness, a quantitative measure, and lived experiences, a qualitative measure. This is the reason for this type of design.

Procedure

The participant in the study was me, a 22-year-old Black female enrolled in university and working a part-time job. Data was collected over 14 days within an Excel spreadsheet. The categories were based on lifestyle domains. Categories such as sleep quality, diet quality, perceived stress, optimism, and happiness were measured utilizing Likert scales. At the same time, physical activity was recorded based on the number of hours of physical activity achieved throughout the day.

Sleep quality was measured on a scale from 1-5, with one being poor and five being excellent. The rating for each day was derived based on hours of total sleep and the initial feelings after waking, such as physical pain and mental alertness. This rating was recorded every morning for the previous day. Diet quality was measured by observing how many main and sugary meals I had throughout the day and examining how I felt mentally and physically afterwards. On a scale of 1-5, diet quality was rated the same day before bedtime to ensure accuracy. Perceived stress was on a scale of 1-5, with one being unstressed and five being extremely stressed. This data was derived from a reflection of individual experiences such as daily events and entered the following day.

Optimism was measured on a scale of 1-7, with one being not optimism and seven being extremely optimistic. Like perceived stress, this data was derived from a reflection on individual experiences and entered the following day. Happiness was measured on a scale of 0-10, with zero being depressed and ten being extremely happy. Happiness was derived through a reflection of daily events, social location, and self-care of that day. The rating was entered the following day. Daily events were measured by collecting daily diary entries. Each day I sat down with my partner and recorded moments of my day; the next day, they were entered into the Excel spreadsheet.

An app called Samsung Health was utilized for physical activity to ensure accurate data. Samsung Health is a preinstalled app which is included in Android phones. This app measures physical activity by tracking heart rate movement while the phone is on the person and connectivity with other workout program apps (Byford, 2012). In this case, walking was considered my physical activity, so Samsung Health measured how many steps I had taken over the day and calculated the approximate hours spent being physical. That number was then entered into the spreadsheet the following day.

Analysis

For all variables, a univariate analysis was conducted. This includes determining the mode, median and mean of all the variable's data sets. Additionally, a frequency table was created to determine how often a particular value was reported. Question 1 utilized a bivariate analysis. Each examined correlation, e.g., sleep quality and physical activity, was measured through Pearson's r and Kendall's Tau-B to discover any statistical significance. For this study, p-values greater than 0.05 were considered not statistically significant. A correlation plot was also created to determine the positive or negative correlation between variables visually. For question 2, a thematic and bivariate analysis was conducted. The approach to this thematic analysis was deductive. Based on the previous literature, I started the study with social support, relationships, self-care, and conflict themes. This was to inform my data analysis and either agree with the current literature or discover a unique perspective. Using the Bivariate analysis and thematic analysis, the two sets of data were analyzed together to discover any correlations.

Positionality

I acknowledge that I am a middle-class, educated Black woman. I attend post-secondary and have enough money for a place to stay and food. Additionally, my work includes performing studies as a research assistant. I had more grasp on conducting research, which could influence the data collection process. Moreover, I deal with mental and physical health issues, namely depression, anxiety, OCD, PTSD and PCOS. This means that on certain days, I will have issues with my physical and psychological health that are out of my control. Due to this, I may overcompensate in other areas, which could influence the data. I chose methods, i.e., third-party recording apps, asking my partner to record what he observed, which would reduce the biases within my research.

Ethical considerations

There will be ethical issues in a study that relies upon participant data. Since this study includes my data, I was concerned about my welfare. While the data is kept confidential, there is no way for data to be anonymous. This can lead to insecurity and uncertainty when examining and publishing the data. Moreover, this study does not allow for privacy as the study called for an intimate examination of my daily habits. Further research of this style should consider concern for welfare as a significant ethical issue and develop a strategy to mitigate the feelings I had felt when recording my data.

Results

General sleep quality

For sleep quality, the minimum reported value was one, and the maximum reported value was 4. The mean reported sleep quality was 2.5 on a 1-5 rating. The mode of sleep quality was two, and the data median was 2.5 (see appendix A1). Out of 14 days, I reported that my sleep quality was around a 2 or 3 value 26.6% of the time. I reported that my sleep quality was 1 or 4 20% of the time. Overall, my sleep quality hovered around poor and decent for 14 days (see appendix A2)

Physical activity

Physical activity was measured by how many hours I performed physical activity. The median for this data is 1.5 hours, and the mean is 1.57 hours. The highest reported value is 4 hours; the lowest is 0 hours. 33% of the time, I reported performing a physical activity for 1 or 2 hours. Eighty-five percent of the time, over 14 days, I reported some degree of physical activity (see appendix A1, A3).

Physical activity and sleep quality have a high statistical significance. r reported a correlation coefficient of 0.905, and Tau-B reported a correlation coefficient of 0.905. Both, with a p < 0.001, indicate a robust statistical relationship between the two values, which rejects the null hypothesis (see appendix B1). Moreover, there is a strong positive correlation between the two values. The lower the sleep quality, the lower the physical activity. Indicated within the scatterplot, the higher number of hours of physical activity line up with the higher rating for sleep quality. This indicates an association between the two values (see appendix B1.1).

Diet quality

Diet quality reported a minimum value of 2 and a maximum value of 4. The median value was 3, and the mean value was 3. 53.5% of the time, I reported a meal quality of 3. Over 14 days, my meal quality was consistently around 3. This indicates that my meal quality was average (see appendix A1, A4).

Diet quality and sleep quality show a high statistical significance. r reported a correlation coefficient of 0.933, and Tau-B reported a correlation coefficient of 0.884. These two values have a p-value of <0.001, indicating a solid statistical relationship, rejecting the null hypothesis

(see appendix B2). These two categories also show a positive correlation. The increase in sleep quality leads to a reported increase in meal quality. The reverse also exists, the lower the sleep quality, the lower the meal quality. This shows an association between these two values (see appendix B2.1).

Perceived stress

Perceived stress reported a minimum value of 1 and a maximum value of 5. The median value was 3.5, and the mean value was 3.07. Over 14 days, I reported periods of mild stress to high stress. Forty percent of the time, I reported that I was very stressed, and 33% of the time, I reported that I was mildly stressed. I only reported experiencing either no or extreme stress once throughout 14 days. This indicates that I constantly perceive stress throughout my days (see appendix A1, A5).

Perceived stress and sleep quality indicate a high statistical significance. r reported a correlation coefficient of 0.905, and Tau-B reported a correlation coefficient of 0.850. These two values have a p-value of <0.001, indicating a robust statistical relationship, rejecting the null hypothesis (see appendix B3). When examining the correlation between perceived stress and sleep quality, there is a phenomenon in which the higher the sleep quality, the higher the perceived stress. Inversely, the lower the sleep quality, the less stress is felt. This is a different correlation than the other categories, which warrants further analysis (see appendix B3.1).

Optimism and Happiness

Optimism and Happiness show high statistical significance. r reported a correlation coefficient of 0.962 and Tau-B reported a correlation coefficient of 0.938. These two values have

a p-value of <0.001, indicating a robust statistical relationship, rejecting the null hypothesis (See Appendix B4). The data also highlighted a positive correlation. The higher the optimism, the higher the reported happiness. Additionally, optimism values had a range of 1 to 6 and happiness had a range of 2 to 8 which indicates that there were periods of low optimism and happiness all the way to periods of high optimism and happiness (see Appendix C)

Thematic analysis of daily lived experiences

Through examination and codification of the data, common themes popped up. Conflict, daily tasks, self-care, and social interactions were most of my daily experiences. Through these significant themes, many other sub-themes, such as tangible support, social support, hobbies, personal conflict, and work conflict, also appear repeatedly in the collected diary entries.

Conflict

Conflict was a central theme throughout my daily experiences. I often reported some form of conflict in my daily diary entries. The form of conflict includes personal conflict with friends or family, relationship conflict with my partner, workplace conflict with the youth I work with, and internal conflict within myself. On one of the days when I had an issue with my partner, I reported that "my partner and I got into a big fight which really upset me" (see Appendix C). This entry indicates that I tend not to handle conflict well. Another entry to support this indication is when I mentioned that while I was in my work setting, the youth I worked with were not behaving appropriately within the centre or towards me.

"Today, with my students, I ran a game which I expected to be fun, but it involved a lot of behavioural re direction. Due to this, I had to find a way to play the games while also managing their behaviour. At the end of the day, I broke down emotionally because I was so tired of their treatment towards me."

This theme repeatedly popping up within my diary entries indicates that major conflict is enough to disrupt my day and that conflict issues often are at the forefront of my mind.

Daily tasks

Daily tasks were a minor theme in my diary entries on days when there was not much to report. Daily chores and commitments make up most reported daily tasks. This theme was subtle and consisted of actions needed to ensure I met my basic needs. Tasks such as "grocery shopping with my partner" and taking my cat to get groomed were reported as the main daily tasks (see Appendix C). Reviewing this theme indicates that when I am at home, I often complete daily tasks instead of other activities such as hobbies or self-care.

Self-care

Self-care is another minor theme within my diary entries. Self-care actions are often reported when I am out of the house or free of daily tasks and social interactions. According to my daily entries, self-care actions can be purchasing an item or spending personal time doing an activity I want to complete. I also frame self-care actions as necessities. For example, after a doctor's appointment, I visited Winners to purchase hair care items "necessary for me to keep my hair clean." This was completed after a visit from the doctor. This could indicate that selfcare actions appear in correlation with health concerns (see Appendix C). Overall, there were very few self-care-specific entries, but a health concern aspect was attached to the self-care entries that showed up often.

Social interactions

Social interactions were a central theme throughout my daily experience. Comprised of most of the daily diary entries, social interactions were the most consistent experience that occurred to be daily. Social interactions as a major theme can be broken down into two categories: providing support and receiving support. I often provided some form of support to another person. I supported people in my inner circles, such as my mother, partner, and friends. The forms of support provided include socially and tangibly supporting a friend who had "recently gone under a procedure" or supporting my partner's family informationally when they discussed political issues (See Appendix C). Regarding receiving support, my partner and friends often provided me with the most social support. My partner provided tangible support by assisting me with a task.

"I finished a video game that I was working on for two weeks. It is from one of my favourite franchises and it was a game I was longing to play. Luckily, my partner assisted me on the harder parts of the game but the fact that I was able to finish it made me quite happy."

Optimism and happiness versus analysis of daily lived experiences

Measuring the quantitative measurement of optimism and happiness versus the daily diary entries. There is an indicated pattern. For days that I reported mild to high optimism and happiness, my diary entry was either a positive social interaction, a positive daily task, or a positive self-care moment. (See appendix C). The inverse is also true; on days where I reported low to mild optimism and happiness, I entered a diary entry that fell under conflict or was a negative social interaction. I cannot determine a causal relationship from this data, but there is some association between the two measures.

Discussion

This study's findings are consistent with the literature. Those who reported issues of sleep quality impacting diet quality in previous studies replicated within this study where I reported the similar interaction. Aslan Cin and Yardimci (2021) illustrate the connection between poor sleep quality resulting poor diet quality which consisting of unhealthy fats and sugars which is like the diet quality that I reported through this study. Sleep quality impacting physical activity was also a reported association between this study and previous literature. Poor sleep results in variability within one's schedule which tends to overlook physical activity. Within this study, I reported low physical activity when my sleep quality was also reported as poor. This could be due to the need to accommodate all tasks within the day, leading to schedule variability (Carney et al., 2006). Stress and sleep have a documented association. Stress impacts sleep quality, low sleep quality goes on to impact stress levels (Becker et al., 2015; Pilcher et al., 1997). However, within this study, there tended to be an inverse relationship. When stressors were high, sleep quality was reported positively. This goes against the current literature which reports that stress impacts sleep negatively (Becker et al., 2015).

Optimism and Happiness are variables which share a reciprocal relationship with the content of the daily entries. When optimism and happiness were reported higher, the content of the daily entries consisted of positive interactions. This is also true for the inverse. Demirtas (2020) reports that for individuals with high optimism, their happiness was high as well. This study also indicated better moods and more social interactions for those with high optimism and

happiness. This indicates that the findings within my study are consistent with the current literature.

Limitations

This study is not without its limitations. First, while studying small phenomenon effectively, a case study design does not allow for causality to be established. While it does show associations between variables, it cannot establish whether one variable caused the second variable to be positive or negative (Pilcher et al., 1997). Third, the data sample was too small. The only participant was me; the only data was collected for 14 days. This does not make the study eligible for generalizability (Pilcher et al., 1997). Lastly, the use of self-reporting causes more issues in confirmability and transferability. While there were steps taken to mitigate bias, self-reporting personal measures such as sleep quality and meal quality can result in an adjustment of value to make the participant feel less self-conscious. While it cannot be determined that it occurred within this study, it does limit its confirmability and transferability.

Conclusion

In summary, the data collected showed a correlation between sleep quality, physical activity, diet quality and perceived stress. For each variable, there was a positive correlation which showed that an increase in sleep quality led to an increase in diet quality, physical activity, and perceived stress, which is consistent with the research. Moreover, there was a direct thematic and quantitative correlation between my reported optimism and happiness and my daily activities. This is also consistent with the research. The implications of this study warrant further studies on university-aged women and sleep quality to see various other factors that sleep quality impacts. However, since the study was limited in sample size, this study is not generalizable.

Further research should utilize a longitudinal design and objective measurements of sleep quality, physical activity, diet quality and perceived stress to ensure validity and reliability. Research should also include more diverse populations to create generalizability.

References

- Amaral, A. P., Soares, M. J., Pinto, A. M., Pereira, A. T., Madeira, N., Bos, S. C., Marques, M., Roque, C., & Macedo, A. (2018). Sleep difficulties in college students: The role of stress, affect and cognitive processes. *Psychiatry Research*, *260*, 331–337. <u>https://doi.org/10.1016/j.psychres.2017.11.072</u>
- Arbinaga, F., Fernández-Cuenca, S., Fernández-Ozcorta, E. J., Toscano-Hermoso, M. D., & Joaquin-Mingorance, M. (2019). Level of physical activity and sleep characteristics in university students. *Sleep Science*, *12*(4), 265–271. <u>https://doi.org/10.5935/1984-</u> 0063.20190092
- Aslan Çin, N., & Yardimci, H. (2021). Association of total energy intake, diet quality and sleep disorders in university-term female students. *Sleep and Biological Rhythms*, 19. <u>https://doi.org/10.1007/s41105-021-00320-1</u>
- Becker, N., Jesus, S., Marguilho, R., Viseu, J., Alexandra, K., João, K., & Buela-Casal, G. (2015). *Sleep quality and stress: A literature review*. (pp. 53–61).
- Carney, C. E., Edinger, J. D., Meyer, B., Lindman, L., & Istre, T. (2006). Daily activities and sleep quality in college students. *Chronobiology International*, 23(3), 623–637. https://doi.org/10.1080/07420520600650695
- Centers for Disease Control and Prevention. (2019, September 11). *Sleep and Health*. CDC | Healthy Schools |. <u>https://www.cdc.gov/healthyschools/sleep.htm</u>
- Chaput, J.-P. (2014). Sleep patterns, diet quality and energy balance. *Physiology & Behavior*, *134*, 86–91. <u>https://doi.org/10.1016/j.physbeh.2013.09.006</u>

- Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *BMC Medical Research Methodology*, *11*(1), 100. <u>https://doi.org/10.1186/1471-2288-11-100</u>
- Demirtaş, A. S. (2020). Optimism and happiness in undergraduate students: Cognitive flexibility and adjustment to university life as mediators. *Anales de Psicología / Annals of Psychology*, *36*(2), Article 2. <u>https://doi.org/10.6018/analesps.381181</u>
- Dinis, J., & Bragança, M. (2018). Quality of Sleep and Depression in College Students: A Systematic Review. *Sleep Science*, *11*(4), 290–301. <u>https://doi.org/10.5935/1984-0063.20180045</u>
- Emerson, J. (2022, July 15). *The Importance of Sleep for College Students*. https://admissions.usf.edu/blog/the-importance-of-sleep-for-college-students
- Ghrouz, A., Noohu, M., Manzar, D., Spence, D., Bahammam, A., & Pandi-Perumal, S. R.
 (2019). Physical activity and sleep quality in relation to mental health among college students. *Sleep and Breathing*, 23. https://doi.org/10.1007/s11325-019-01780-z
- Memon, A. R., Gupta, C. C., Crowther, M. E., Ferguson, S. A., Tuckwell, G. A., & Vincent, G. E. (2021). Sleep and physical activity in university students: A systematic review and meta-analysis. *Sleep Medicine Reviews*, *58*, 101482.

https://doi.org/10.1016/j.smrv.2021.101482

Pilcher, J. J., Ginter, D. R., & Sadowsky, B. (1997). Sleep quality versus sleep quantity:
Relationships between sleep and measures of health, well-being and sleepiness in college students. *Journal of Psychosomatic Research*, 42(6), 583–596.
https://doi.org/10.1016/S0022-3999(97)00004-4

- Wang, F., & Bíró, É. (2021). Determinants of sleep quality in college students: A literature review. *Explore (New York, N.Y.)*, 17(2), 170–177. <u>https://doi.org/10.1016/j.explore.2020.11.003</u>
- Yu, Y., & Luo, J. (2018). Dispositional Optimism and Well-Being in College Students: Self-Efficacy as a Mediator. *Social Behavior and Personality*, 46(5), 783–792.
 https://doi.org/10.2224/sbp.6746

Appendix A

Univariate Analyses

Table A1.

Univariate analysis of sleep quality, physical activity, diet quality and perceived stress

Variable	n	Mean	Median	Mode	Min	Max
Sleep Quality	14	2.5	2.5	2	1	4
Physical activity	14	1.571	1.5	1	0	4
Diet quality	14	3	3	3	2	4
Perceived stress	14	3.071	3.5	4	1	5

Table A2.Frequency table for sleep quality

Sleep Quality	Frequency	Percent	Valid percent	Cumulative percent
1	3	20.000	21.429	21.429
2	4	26.667	28.571	50.000
3	4	26.667	28.571	78.571
4	3	20.000	21.429	100.000

Physical Activity	Frequency	Percent	Valid percent	Cumulative percent
0	2	13.333	14.286	14.286
1	5	33.333	35.714	50.000
2	5	33.333	35.714	85.714
3	1	6.667	7.143	92.857
4	1	6.667	7.143	100.00

Table A3.Frequency table for Physical activity

Table A4.Frequency table for diet quality

Diet quality	Frequency	Percent	Valid percent	Cumulative percent
2	3	20.000	21.429	21.429
3	8	53.333	57.143	78.571
4	3	20.000	21.429	100.000

Table A5.Frequency table for perceived stress

Sleep Quality	Frequency	Percent	Valid percent	Cumulative percent
1	1	6.667	7.143	7.143
2	5	33.333	35.714	42.857
3	1	6.667	7.143	50.000
4	6	40.000	42.857	92.857
5	1	6.667	7.143	100.000

APPENDIX B

Bivariate Analyses

Table B1.Correlation between Sleep quality and Physical activity

Variable		Sleep Quality	_
Physical activity	n Pearson's r p-value Kendall's Tau-B p-value	14 0.905 <0.001 0.909 <0.001	
			Figure B1.1

Correlation plot between Sleep quality and Physical activity

Sleep_Quality Activity_Physical 4 · \circ $^{\circ}$ \circ Sleep_Quality 3 -0 2 0 1 -0 \odot 0 1 2 3 4 Activity_Physical

Table B2Correlation between Sleep quality and Diet Quality

Variable		Sleep Quality
Diet quality	n Pearson's r p-value Kendall's Tau-B p-value	14 0.933 <0.001 0.884 <0.001

Figure B2.1

Correlation plot between Sleep quality and Diet Quality

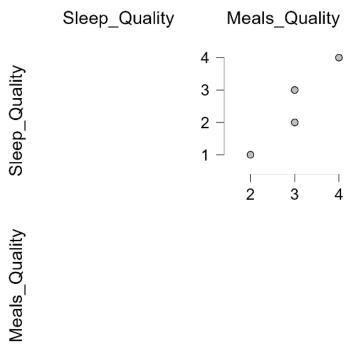
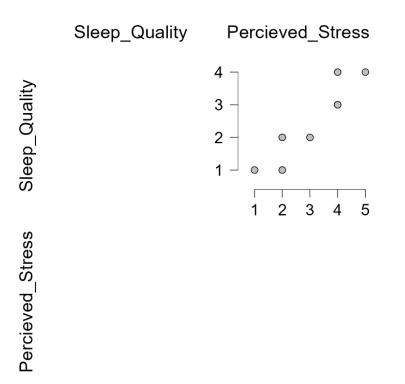


Table B3.Correlation between Sleep quality and Perceived Stress

Variable		Sleep Quality
Perceived stress	n Pearson's r p-value Kendall's Tau-B p-value	14 0.905 <0.001 0.850 <0.001

Figure B3.1

Correlation plot between Sleep quality and Perceived Stress



Variable		Optimism
Happiness	n	14
	Pearson's r	0.962
	p-value	< 0.001
	Kendall's Tau-B	0.938
	p-value	< 0.001

Table B4.Correlation between Optimism and Happiness

Daily lived experiences	Intial codes	Themes	Code notes	Thematic notes
Today my partner and I got into a big fight which really upset me. It was the fact that	relationships, co	conflict	issues with perso	conflict personal
I came back to internship after my week off during reading week. My head started h	work, health issu	conflict	health issues res	conflict
Today with my students, I ran a game which I expected to be fun but it involved a a le	work, conflict	conflict	issues with perso	conflict
Today at internship, A child confided in me about a situation that could have been co	work, conflict	conflict	issues with work	conflict
My cat was scratching up my furniture so I decided to take her to get her nails trimm	chores, activities	daily tasks	daily tasks to imp	chores focused
I went grocery shopping with my partner and I learned how to make bread which wa	relationships, he	daily tasks	daily tasks to imp	health focused
Today, I took myself to winners which had one of my hair care products on sale. I put	self care time, he	Self care	self care for heal	health issues
Today I read a book I had been putting off for so long, I sat down and took the time t	hobbies, self care	self care	self care task on	self care focused
A friend I had not seen for weeks, I spent the weekend with her and her family. She	social support, fr	social interactior	providing social s	social support
Today I spent the time with my partner's family on families day. They are a weird but	relationships, po	social interactior	providing inform	social support
Today I hung out with a friend who I have not seen in a while. We had gone during the	friends, social su	social interaction	recieving social s	social support
I finished a video game that I was working on for two weeks. It is from one of my fav	self care time, re	social interaction	partner provided	social support
Today I travelled back to my hometown to see my mother. I had not seen her in such	family time, self	social interaction	family time with	social support
Today my partner and I went on a date. We have not been on a date since we got to	relationships, sel	social interaction	positive relations	social support

Psychological_W	Vellbeing Daily_Events		
Optimism	Happiness		
3	6	A friend I had not seen for weeks, I spent the weekend with her and her family. She had recently gone under a procedure and I wanted to be there for her in all capacities. We spent the entire day together before I came back to my apartment	
3	7	Today I spent the time with my partner's family on families day. They are a weird bunch so its often an issue of tuning them out. Today my potential mother in law went on a rant about Kanye which I found weird as well.	
2	5	Today I hung out with a friend who I have not seen in a while. We had gone during the night time to see a concert for a band I did not know but I enjoyed the environment and the people. I met some new people, as well as caught up with people who I used to know.	
1	. 3	Today I read a book I had been putting off for so long, I sat down and took the time to really grasp what I was reading. Additionally I started annotating this book and kept track of my favourite passages to come back to the book after I was done classes.	
2	4	Today my partner and I got into a big fight which really upset me. It was the fact that we were neglecting each others needs and it came to a head today. I cried afterwards but we made up which help me a lot	
4	7	Today, I took myself to winners which had one of my hair care products on sale. I purchased the item because I never am able to find these items and its necessary for me to keep my hair clean. Additionally, I went to see the doctor about an health issue of mine and she c	
1	. 5	I finished a video game that I was working on for two weeks. It is from one of my favourite franchises and it was a game I was longing to play. Luckily my partner assisted me on the harder parts of the game but the fact that I was able to finish it made me quite happy.	
2	4	Today I travelled back to my hometown to see my mother. I had not seen her in such a long time and she always brings me joy when I see her. She picked me up from the station and we went out to the stores like we usually do. I was able to hold her and enjoy her compar	
6	8	My cat was scratching up my furniture so I decided to take her to get her nails trimmed. I had to donate some clothes as well so I did both on the way. My cat does not like getting put in her carrier so I had to lure her in using treats. She was very calm at the groomers but	
5	5	l came back to internship after my week off during reading week. My head started hurting due to the new medication I was under but also it started hurting because the children were super disrespectful to me and my other collegues. I had to reprimand them today which	
3	3	Today with my students, I ran a game which I expected to be fun but it involved a a lot of behavioral re direction. Due to this, I had to find a way to play the games while also managing their behaviour. At the end of the day, I broke down emotionally because I was so tired	
1	. 2	Today at internship, A child confided in me about a situation that could have been considered duty to report. It was very conflicting with me because of the child's racialized background and other issues. I did not want to land this child in a much more unsafe position. It e	
5	7	I went grocery shopping with my partner and I learned how to make bread which was soemthing I have been wanting to do. After being diagnosed with a lot of health concerns, I wanted to make my life healthly and this allowed me to do so. The bread turned out fantasti	
6	8	Today my partner and I went on a date. We have not been on a date since we got together so I felt like we should go out to the movies. We went to see cocaine bear which was a terrible movie but an enjoyable time for the two of us. As a movie fan, I really did not like the	