



**Effect of Physical Activity, Sleep Quality and Mindful Eating on Self - Concept Clarity
(SCC)**

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ABSTRACT

The study examined the correlation between physical activity, sleep quality, mindful eating, and self-concept clarity (SCC) among young adults aged 18-23 years. Using self-reported measures such as the self-concept clarity scale, mindful eating questionnaire, sleep quality index, and the International Physical Activity Questionnaire (IPAQ), the study used a cross-sectional strategy to gather data from 106 participants. According to the study's descriptive data, participants' levels of physical activity, sleep quality, mindful eating, and SCC varied. Strong yet statistically significant correlations were found between SCC and mindful eating and between SCC and sleep quality, indicating that higher SCC levels may be linked to more thoughtful eating and better sleep. Nevertheless, no discernible link was discovered between physical exercise and SCC. Future investigations into the interactions between these factors and SCC, as well as any possible

ramifications for personal growth and mental health therapies, can build on the findings of this study.

Keywords: *Physical Activity, Sleep Quality, Mindful Eating, Self-Concept Clarity, Young Adults*

INTRODUCTION

The COVID-19 pandemic has resulted in a global change in awareness of the substantial influence of healthy behaviours on improving mental well-being and general quality of life. It emphasised how crucial it is to actively promote mental health through long-term, healthy behaviours in addition to preventing sickness. This holistic approach emphasises that true well-being entails a balance between physical and mental health.

The study examined the impact of three important health behaviours on self-concept clarity (SCC), or how people see and comprehend themselves: eating mindfully, exercising, and getting enough sleep. A psychological indicator of how distinct and consistent a person's self-beliefs are called self-concept clarity (SCC) (Campbell et al., 1996). It reflects how stable, coherent, and clear-cut one's views of one's own identity, objectives, and values are. This research will examine the relationships between healthy behaviours and self-concept clarity to shed light on how adopting healthier behaviours could contribute to a more solid and self-assured sense of self.

Regular exercise has well-established physical advantages, but it also has significant positive effects on mental well-being and self-concept clarity. Frequent exercise can raise self-esteem, lower stress levels, and improve mood. It may also result in a more favourable perception of one's physique and heightened self-awareness, which would strengthen and clarify one's self-concept. A good night's sleep is essential to overall health since it is associated with a host of

physical and mental health issues. Sleep that is both sufficient and restorative promotes resilience in many facets of life, including emotional and cognitive regulation.

Being present throughout meals and paying great attention to the eating experience, including sensations and indications of hunger and fullness, are all part of mindful eating. By fostering a positive relationship with food and body image, this exercise can improve self-awareness. Making significant identification decisions is positively correlated with having a clear self-concept, which is a sign of self-assurance. On the other hand, identity crises marked by reassessing and breaking present commitments are associated with low self-concept clarity (Crocetti et al., 2008, 2010; Morsünbül et al., 2014, 2015; Schwartz et al., 2011).

Poor self-concept clarity (SCC) has been linked to characteristics such as high neuroticism, poor self-esteem, low conscientiousness, low agreeableness, and low self-concept clarity, persistent self-analysis, a propensity for ruminative self-focus, and limited awareness of one's internal state (Campbell et al., 1996b). Even with these results, there still needs to be more knowledge on the variables influencing the clarity of one's self-concept. By examining the effects of things like exercise, mindful eating, and sleep quality on SCC, this study seeks to close that knowledge gap and offer fresh perspectives on the emergence and upkeep of self-concept clarity.

RATIONALE FOR THE STUDY

Since self-concept clarity has been shown to have beneficial effects on lowering anxiety and depression, it makes sense to investigate the role that physical activity, mindful eating, and sleep quality play in improving SCC. However, the developmental aspects of SCC have not received as much attention as they should. Comprehending the development of SCC and its

possible enhancement through lifestyle variables gives a chance to bridge this research gap and has implications for improving psychological and physical well-being.

Earlier studies have demonstrated the significance of SCC in mental health. Resilience, flexibility, and enhanced emotional regulation are linked to having a clear and consistent knowledge of one's identity, beliefs, and objectives. High SCC people frequently have higher levels of self-assurance and are better able to handle stress and hardship, which lowers their rates of anxiety and sadness. Nonetheless, the current corpus of literature has not yet thoroughly investigated the developmental paths of SCC and the ways in which various lifestyle variables could impact its creation and stability over time.

The study attempts to take a holistic approach to understanding the multiple factors of SCC by examining the role of sleep quality, mindful eating, and physical exercise in creating self-concept clarity. Studies have demonstrated the various psychological advantages of physical activity, such as enhanced mood, cognitive performance, and self-esteem. Individuals may become more emotionally and cognitively stable and develop a more distinct and coherent sense of self by getting better sleep.

The current study's holistic approach, which takes various lifestyle elements into account, offers a more thorough understanding of the possible implications for self-concept clarity. The research intends to uncover specific mechanisms and routes via which physical activity, mindful eating, and sleep quality interact with SCC to affect its growth and maintenance.

Further, the study may provide insightful information about the intricate relationship between lifestyle decisions and the clarity of one's self-concept. Improved mental health and general well-being may result from treatments and practices that promote greater SCC, which an understanding of these linkages may inform.

REVIEW OF LITERATURE

Ellison et al. (2023) investigated how health behaviours affect self-concept, particularly in college students. The study investigates the connection between how people view themselves and their sleep, exercise, and mindful relaxation. Although it is commonly established that relaxation, exercise, and sleep affect physical and mental health, little research has been done on how these factors affect one's self-concept. Ellison and colleagues used a novel methodology to investigate the relationships between these behaviours and college students' self-concept. One hundred fifty-five college students participated in the study, which shed light on how health-related behaviours affect people's perceptions of themselves both individually and collectively. The results were very significant. The study found that a person's ability to see oneself clearly the next day is correlated with how much sleep they get. Whether one is feeling awake or tired, sleep has a big impact on how people frequently assess themselves. On the other hand, there was no correlation between average self-concept clarity and focused relaxation or exercise. Nevertheless, additional examination revealed that conscientiousness, a personality attribute, had a moderating effect. This implies that individual habits and traits strongly influence the association between healthy behaviours and self-concept.

Xiang et al. (2023) investigated the relationship between negative emotional states (such as anxiety, stress, and depression) and emotional eating in a sample of 1,347 Chinese adolescents (62.44% girls). By investigating the mediating roles of self-concept clarity and self-control in this regard, the research sought to add to the body of current work. The findings demonstrated a correlation between an increase in emotional eating among teenagers and greater levels of unpleasant emotional states. The study proposed a structural equation model to explain how

emotional eating and stress/depression symptoms may be related through self-control as a mediating factor. Further contributing to the explanation of the relationship between negative emotional states (such as feelings of worry, tension, and depression) and emotional eating was the serial mediation impact of self-concept clarity and self-control. This study adds to our knowledge of the fundamental processes by which teenagers' emotional eating behaviours are influenced by their negative emotional states. If more research validates these results, this information emphasises the significance of creating programmes to stop emotional eating throughout adolescence by encouraging higher levels of self-control and self-concept clarity.

Kim and Ahn (2021) examined the relationship between exercise, changes in physical self-perception, and their effects on self-esteem and mental well-being. They studied 189 university students in Seoul, Korea, with the goal of figuring out how physical exercise affects mental health in general. The study examined the relationships between physical self-concept, self-esteem, and mental well-being using sophisticated methods such as structural model analysis. It was centred around a six-week exercise programme. The researchers analysed changes in these characteristics using regression analysis and found some intriguing relationships. One important discovery is that physical self-concept improvement brought about by exercise, both directly and indirectly, improves mental health by raising self-esteem. Put another way, exercise has a double effect on us: it makes us feel better about our bodies, but it also makes us feel better about ourselves in general. The research by Kim and Ahn (2021) sheds important light on the advantages exercise has for mental health in addition to its physical benefits. Knowing the relationship between exercise, mental health, and self-perception can help researchers and people who want to use focused physical activity to promote mental health.

METHODOLOGY

Aim

The aim is to study the relationship between physical activity, sleep quality, mindful eating, and self-concept clarity.

Research Objectives

- a) To Investigate the Relationship between Physical Activity and Self-Concept Clarity.
- b) To Investigate the Relationship between Mindful Eating and Self-Concept Clarity.
- c) To Investigate the Relationship between Sleep Quality and Self-Concept Clarity.
- d) To Investigate the combined effect of regular physical activity, mindful eating, and sleep quality and Self-Concept Clarity.

Hypothesis

- 1. It is hypothesised that there is a significant relationship between physical activity and self-concept clarity.
- 2. It is hypothesised that there is a significant relationship between Mindful Eating and self-concept clarity.
- 3. It is hypothesised that there is a significant relationship between Sleep Quality and self-concept clarity.
- 4. It is hypothesised that there is a significant relationship between the combined effect of regular physical activity, mindful eating, and sleep quality and Self-Concept Clarity.

Variables

- **Independent variable:** Physical Activity, Mindful Eating, Sleep Quality
- **Dependent variable:** Self-concept clarity (SCC)

Sampling Design

The sample population is young adults ranging from 18-23 years old. Young adults will be participating in the research study. The sampling design will be Convenient Sampling.

Research Design

Correlational Research Design: This study's research design is correlational, meaning that its goal is to investigate and analyse the links between various variables without modifying them. This method is especially helpful for comprehending the relationship between self-concept clarity (SCC) among young people (18–23 years old) and a variety of lifestyle characteristics, including physical activity, sleep quality, and mindful eating.

Tools

- **Self-concept Clarity Scale: (Campbell et al., 1996)**

The Self-Concept Clarity Scale, which measures how well people identify their self-concept, encompassing components of their measurement, personality correlates, and cultural limits, was used in the study to assess self-concept clarity. Participants rate each of the 12 statements on the measure using a 5-point Likert scale that goes from 1 (strongly disagree) to 5 (strongly agree). Examples of the statements are "I seldom experience conflict between the

different aspects of my personality." According to Campbell et al. 's research, the scale has a Cronbach's alpha of .91, indicating strong internal reliability.

- ***International Physical Activity Questionnaire – Short Form***

A global consensus group created the International Physical Activity Questionnaire (IPAQ) in 1998, and it was put through rigorous testing in 12 different nations in 2000. It is still used to track population levels of physical activity. The IPAQ is a publicly accessible tool used to measure adult physical activity. The IPAQ is available in both long and short variants, and it may be given either as self-administered surveys or over the phone or in-person. When the test-retest approach was used to evaluate the instrument's reliability, specifically among 24 patients with type 2 diabetes, the translated version of the tool produced a correlation (r) value of 0.813.

- ***Mindful Eating Questionnaire (MEQ)***

A self-report tool, the Mindful Eating Questionnaire (MEQ) has 28 measures that evaluate mindful eating in five different domains: awareness (7 items), external cues (6 items), disinhibition (8 items), emotional reactions (4 items), and distraction (3 items). A 4-point Likert scale is used by participants to score their eating habits: 1 represents never/rarely, 2 represents occasionally, 3 represents frequently, and 4 represents usually/always. The given point values for all of the items in a domain are added together, and then that total is divided by the total number of questions answered to determine the score for each domain. The five domain scores are averaged to determine the overall score. Better long-term weight maintenance and more conscientious eating habits are indicated by higher total scores. The MEQ has been validated in healthy people between the ages of 18 and 80. Its total score has a Cronbach alpha of 0.64, indicating moderate internal

consistency. The internal consistency of the subscales, which range from 0.64 to 0.83, is likewise passable.

- ***The Pittsburgh Sleep Quality Index (Buysse, Reynolds, Monk, Berman, Kupfer, 1989)***

A self-rated questionnaire called the Pittsburgh Sleep Quality Index (PSQI) evaluates sleep disruptions and quality of sleep throughout the course of the preceding month. There are 19 questions total, covering latency, length of sleep, and associated issues. With a Cronbach's alpha of 0.83, the test has strong internal consistency and provides a global score based on seven components. The PSQI's validity and reliability in assessing sleep quality are confirmed when its estimations are compared with those from polysomnography and no discernible discrepancies are found.

RESULTS

The following section describes the major results of this study. The descriptive statistics outline the main factors under investigation in the study for the sample of 106 individuals, including activity level, clarity of self-concept, mindful eating, and sleep quality.

These descriptive statistics show how the research participants varied in the important variables, which may be further investigated in the analysis to find connections and correlations between them.

Table 1*Descriptive statistics*

	N	Minimum	Maximum	Mean	Standard Deviation
Activity level	106	0	7330	1921.88	1904.667
Self- Concept Clarity	106	22	56	38.20	7,167
Mindful eating	106	2	3	2.26	.443
Sleep Quality	106	1	15	6.63	2.993
Valid N (listwise)	106				

Table 2*Correlation between Sleep Quality and Self Concept Clarity*

	Self-Concept Clarity	Sleep Quality
Self-Concept Clarity Pearson Correlation	1	-.231**
Sig. (2-tailed)	106	0.017
N		106
Sleep Quality Pearson Correlation	-.231**	1
Sig. (2-tailed)	0.017	106
N	106	

**Correlation is significant at the 0.01 level (2-tailed).

Table 3*Correlation between Physical Activity and Self Concept Clarity*

	Activity level	Sleep Quality
Activity level Pearson Correlation	1	.137**
Sig. (2-tailed)	106	.161
N		106
Self-Concept Clarity Pearson Correlation	.137**	1
Sig. (2-tailed)	.161	106
N	106	

**Correlation is significant at the 0.01 level (2-tailed).

Table 4*Correlation between Mindful Eating and Self Concept Clarity*

	Self-Concept Clarity	Mindful Eating
Self-Concept Clarity Pearson Correlation	1	-.131**
Sig. (2-tailed)	106	.182
N		106
Mindful Eating Pearson Correlation	-.131**	1
Sig. (2-tailed)	.182	106
N	106	

**Correlation is significant at the 0.01 level (2-tailed).

The study found a weak but significant negative correlation between sleep quality and self-concept clarity ($r = -0.231$, $p = 0.017$). Physical activity levels showed a weak positive correlation with self-concept clarity ($r = 0.137$, $p = 0.161$). Mindful eating exhibited a weak negative

correlation with self-concept clarity ($r = -0.131$, $p = 0.182$). Therefore, sleep quality had a significant but weak relationship with self-concept clarity.

DISCUSSION

Research explored the relationship between activity level and self-concept clarity, finding a slight positive correlation. This suggests that increased physical activity may slightly improve self-concept clarity. However, the relationship was not statistically significant, indicating that further research is needed. Variability among subjects and unexamined factors such as exercise type, intensity, or duration might have influenced the results. Future studies should focus on identifying specific aspects of physical activity that more significantly impact self-concept clarity to develop targeted interventions.

The study found a modest negative association between mindful eating and self-concept clarity, suggesting that as mindful eating increases, self-concept clarity might decrease, or vice versa. This was unexpected, given that mindful eating is typically linked to better mental health and self-awareness. The lack of statistical significance means the relationship might be influenced by other factors, such as cultural context or emotional regulation. The findings imply that mindful eating and self-concept clarity might interact in complex ways, warranting further research to understand the nuances of this relationship.

There was a small negative correlation between sleep quality and self-concept clarity, which was statistically significant. This indicates that higher self-concept clarity might be linked to poorer sleep quality, or vice versa. This finding contrasts with previous research highlighting the positive effects of good sleep on mental health. Factors like stress, emotional regulation, or sleep disorders might mediate this relationship. Future longitudinal studies should investigate how

changes in sleep quality affect self-concept clarity over time to better understand potential causal relationships.

The Theory of Planned Behaviour (TPB) and Self-Determination Theory (SDT) provide frameworks to understand these relationships. TPB suggests that beliefs about the benefits of good sleep and perceived control over sleep behaviours might influence intentions and behaviour's, impacting self-concept clarity. SDT posits that fulfilling psychological needs for relatedness, competence, and autonomy can enhance well-being and motivation. Better sleep quality may enhance feelings of competence and control, influencing self-concept clarity. However, excessive clarity in self-concept might lead to rigidity or conflict, negatively affecting sleep quality. These theories highlight the intricate interplay of psychological, motivational, and cognitive factors, suggesting areas for future research and intervention development.

LIMITATIONS

When analysing the study's limitations, the findings should be considered. Furthermore, the future course of this field's study can be determined by these limits.

Diversity and Sample Size: The study's small sample size may restrict how far the results may be applied. A bigger and more varied sample would improve the results' external validity and provide more solid proof. Incorporating individuals from diverse origins and demographics should enhance the understanding of the correlations between exercise level, mindful eating, sleep quality, and clarity of self-concept in diverse groups.

Cross-Sectional Design: The cross-sectional design employed in this study collects data at a specific moment in time. Therefore, it is difficult to infer causation from the results. Prospective studies may utilise longitudinal designs to monitor the evolution of self-concept clarity

and ascertain the effects of varying exercise levels, mindful eating practices, and sleep quality on it.

Measurement Instruments: Although this study included validated measurement instruments, the inclusion of self-reported data raises the possibility of bias due to social desirability bias and inaccurate self-evaluation. In addition to self-reported data, future studies might use other objective measurements, such as wearable devices, for measuring physical activity and sleep quality.

Limited Variables: The main emphasis of the study was on how self-concept clarity was affected by exercise level, mindful eating, and sleep quality. However, other elements like stress, social support, and personality qualities could also have an impact on how clear one's self-concept is. Future studies may think about using a wider variety of variables to offer a more thorough knowledge of the elements that support the clarity of one's self-concept.

CONCLUSION

The results suggest that the connections between sleep quality, mindful eating, activity level, and self-concept clarity are intricate and need more investigation. These linkages may be better understood through the application of the Theory of Planned Behaviour (TPB) and Self-Determination Theory (SDT). Weak correlations between these characteristics were found in the study, indicating that while linkages may exist, they might need to be stronger to support firm conclusions.

Specifically, the surprising but marginally significant negative association between sleep quality and clarity of one's self-concept indicates that there may be more going on in this

relationship. TPB speculates that a person's views and ability to regulate their sleeping patterns may be important.

SDT also highlights the significance of meeting psychological needs, including relatedness, competence, and autonomy. These requirements may affect the clarity of one's self-concept and the quality of sleep.

The study's findings will significantly impact future research and practice. To further understand the links between these characteristics and determine what could be impacting them, more study is first required.

Studies follow participants over time to examine how variations in exercise levels, mindful eating, and sleep quality impact the clarity of one's self-concept. More information may also be obtained by looking at additional variables, including stress levels, emotional control, and cultural influences. From a practical standpoint, encouraging physical exercise and good sleep habits may help enhance general well-being and self-esteem. These treatments should be customised to suit each person's requirements and experiences.

The potential contributions of therapies, including stress management methods, mindfulness exercises, and lifestyle modifications, to enhancements in sleep quality and self-concept clarity might be investigated in more detail. To design focused treatments that support mental health and healthy living, it is crucial to comprehend how these variables interact over time.

In conclusion, further research is necessary to fully understand the links between sleep quality, mindful eating, activity level, and clarity of self-concept, even if the study offers helpful insights into these interactions. Future research can expand on these findings and aid in the

development of ways to enhance mental health and self-perception by utilising the viewpoints of TPB and SDT. In the end, a better comprehension of the relationships between these variables can direct the creation of more successful strategies for improving the clarity of one's self-concept and encouraging a healthier way of living.

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