Evidentia University
of Behavioral & Forensic Sciences

Master MSc Behavioral Economics

Course Capstone Project

Title

Decision Fatigue among young adults (18-30 yrs) and the role of Behavioral Economics

Activity – *Final Delivery*

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Director – Mercedes Diéguez

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Acknowledgments

I would like to express my gratitude to the professor and supervisor, Dr. Néstor García that has an invaluable patience and valuable feedback through this Master of Behavioral Economics.

Gratitude and thanks to the following professors: Silvestre Cabezas , Mercedes Diéguez (Master's Degree Director) who have helped me to study the entire course in my Master program.

I'd like to mention the support from my Co-guide, Dr Nudrat Jahan , Associate Professor, School of Psychology, K.R. Mangalam University, Gurugram, Haryana, India, for guiding me in this project.

Finally, I am grateful to my father, Prof. Sushil Kumar Azad, SOET, K.R. Mangalam University, and my family for supporting me throughout this journey of my study in Master of Behavioural Economics.

Date: 06-12-2024

To

Shagun Azad,
Student, Evidentia University,
U.S.A.

Subject: Co- guidance in Research and Analysis

I, **Dr. Nudrat Jahan**, Associate Professor, Psychology, K.R.Mangalam University , hereby provide my consent for helping as Co-guide in the research study titled "Title of Project: Decision Fatigue amongst young adults and role of Behavioural Economics." I confirm that I have provided guidance whenever required by the students.

I will offer ongoing support and consultation related to the research process, including data collection and analysis, to ensure that the methodologies employed align with psychological aspects of Behavioural Economics.

I agree to provide assistance in the interpretation of data and findings, and reporting results and conclusions.

I acknowledge that my involvement in this study is to guide the researcher(s) and help uphold high standards of psychological research.

I wish, Shagun Azad, a success in this important study and commend their commitment to conducting research that upholds the integrity of psychological inquiry.

Sincerely,

Nudrat Jahan 06-12-2024

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1. Summary and Keywords

Decision fatigue, the decline in decision quality after prolonged decision-making, is particularly relevant for youth aged 18 to 30, who face critical life decisions in education, career, relationships, and finances. This cognitive depletion leads to impulsive choices and reliance on mental shortcuts, often resulting in poor outcomes. Youth are especially vulnerable to decision fatigue due to the overwhelming number of choices they face, which can affect long-term outcomes such as overspending or neglecting savings.

Behavioral economics offers strategies to counteract decision fatigue, such as nudging, simplifying choices, and using pre-commitment tools to reduce cognitive load. These methods aim to guide young adults toward better decisions by minimizing effort, such as automatic enrollment in savings plans or making decisions earlier in the day when mental energy is higher. Additionally, behavioral economics highlights the impact of decision fatigue on biases like present bias and loss aversion, which can hinder long-term financial and health decisions.

Research on decision fatigue often neglects younger populations, focusing on general populations instead. There is a lack of long-term studies, and the effects of decision fatigue on major life choices remain underexplored. More research is needed on how cultural, socioeconomic, and digital factors contribute to decision fatigue in youth.

Keywords: decision fatigue, behavioural economics, decision making, young adults.

2. Introduction

Decision fatigue, the decline in decision quality after prolonged decision-making, is particularly relevant for youth aged 18 to 30, who face critical life decisions in education, career, relationships, and finances. This cognitive depletion leads to impulsive choices and reliance on mental shortcuts, often resulting in poor outcomes. Youth are especially vulnerable to decision fatigue due to the overwhelming number of choices they face, which can affect long-term outcomes such as overspending or neglecting savings.

First of all let us understand what decision fatigue is? It is a difficulty and stress in making decisions. Like burnout, you experience decline in the quality of your decision making in real life. In my research, I am catering to the population of the age group between 18-30. I have covered 4 major areas including Career, Finance, Social Media and Health. There has been a lot of cognitive overload in the brain which can further lead to impulsive decisions or choices made by individuals. We occasionally see and encounter that behavaioral patterns like overeating, overspending, excessive time on social media etc. in the youth is prevalent.
Here is where the role of behavioral economics comes in. There are known techniques such as Nudging, Simplifying choices and Tools to reduce the cognitive load. In our research we would devise strategies like automatic enrolment in savings. We make sure there is less use of mental energy. We will also study the role of behavioral economics and cognitive biasis like personal biases. Other concepts like loss aversion are being discussed which can hinder personal and long term financial and health decisions.

We have chosen this area of research as there is fewer information on this topic and not much research around this topic done. It is also a pressing issue among young adults of the age from 18 to 30, especially. There is a scope of more research on how cultural, socio-economic, and other digital factors can play a role in the same.

2.1 Decision fatigue and issues

Each and every single day we have countless decisions to make like what to eat, what to wear, what to eat and others. Decision fatigue can have an overload on the overall body.

There is existing work done on decision fatigue in the field of psychology, behavioral economics and healthcare. Yet young adults which are most crucial are kept at the dormant. There is a lack of age specific study, longitudinal study, real world examples iteration testing and other factors. Our objective lies in addressing these issues.

It is also observed that as mental energy wanes, people are more likely to make hasty, impulsive decisions to avoid further mental strain. Not only that people with tiredness and low energy also make hasty and impulsive decisions and regret later. This happens due to too much mental strain. Decisions can be both simple and complex. Complex decisions are the ones which are harder to make and can lead to wrong outcomes. Another area seen is that too many choices called as choice overload in BE can lead to procrastination in decision making.
Decision fatigue leads to damaged decision making which makes people look small but can have a major impact on people's lives like impulsive eating and unhealthy lifestyle. Overspending which is a sign of impulsivity is another point.
Decision fatigue is also correlated to emotional exhaustion. People tend to experience stress, frustration and burnout. They feel overwhelmed with to many choices which gets accumulated over a period of time.
If your mind is not ok, you cannot put it to work hence leading to less levels of productivity. Overthinking and over contemplating ssove rhcoices can lead completing work on time.

Decision fatigue can also impact personal relationships where people feel drained and less pertinent and can spill there anxiety onto other peoples.

2.2 How to manage decision fatigue ?

It is good to have limited choices like having a day planned before starting the next day. Simple decisions lie what to wear and planning a diet chart can simplify things. It is better to make decisions early in the morning when you have a fresh mind. Set a routine for yourself and give yourself time to let your thoughts settle down. It is important to take breaks in between that further helps improve decision fatigue. Like a simple google calendar or outsourcing tasks can help to reduce cognitive overload.

Decision fatigue can further be managed through delegation and automation, such as automating routine tasks like bill payments or relying on trusted advisors for important decisions.

2.3 Role of Behavioral Economics in managing Decision Fatique

Before delving deep into BE, let us understand what traditional economics says- it questions that human beings are rational and well informed, yet in reality people are emotional. When faced with decision fatigue people often have seen making irrational decisions. On the other hand, behavioural economics is a combination of economics and psychology.

Behavioral economics explores how cognitive biases, which includes status quo bias, anchoring bias, and loss aversion etc., have a direct impact on decision-making, especially when people are fatigued. In status quo bias, individuals tend to stick with familiar choices. In anchoring bias, it causes them to focus too much on the first piece of information and loss aversion makes them avoid risks when mentally exhausted. By understanding these biases, organizations can design environments that minimize their effects. For example, a well-structured choice architecture helps reduce decision fatigue by simplifying choices, using nudges to guide people toward better decisions, and encouraging pre-commitment to ease future mental strain. Timing decisions when mental energy is high and breaking complex decisions into smaller, manageable parts are also strategies for reducing cognitive overload.

In policy and business, behavioral interventions—like automatic enrollment in retirement plans or simplifying healthcare options—help people make better decisions with less effort.

Behavioral economics also addresses self-control, recognizing that willpower depletes with fatigue, leading to impulsive decisions. Techniques like pre-commitment, temptation bundling, and rewarding self-control can help maintain better decision-making.

Additionally, people tend to rely on social proof and heuristics, following others or using mental shortcuts when fatigued. By understanding these patterns, decision environments can be designed to reduce the mental effort required and improve outcomes.

2.4 Objectives

We summarize below our some of the objectives of this project:

- To evaluate the awareness and understanding of decision fatigue among young adults aged 18 to 30.
- To assess the prevalence of decision fatigue in key areas of daily life, including Career, Social Media and Digital overload , Personal Relationships and Social Interactions, and Personal Finances and Money Management.
- To assess the effectiveness of behavioral economics strategies in reducing decision fatigue and enhancing decision-making in these areas.
- To develop practical tools and interventions aimed at helping young adults manage decision fatigue and improve their overall decision-making abilities.
    - To address existing research gaps, including the need for age-specific, i.e, to design experiments focusing on young adults (18-30) to understand how decision fatigue impacts their choices in career, finance, and relationships. Tailor surveys and interviews to reflect their common decision-making scenarios.
    - To adopt Interdisciplinary Approaches, i.e**.,** forming interdisciplinary teams to develop holistic models of decision fatigue, incorporating psychological, social, and cognitive factors influencing young adults' decisions.

2.5 Literature Review

Our research on decision fatigue, especially in the context of young adults and its intersections with behavioral economics, addresses an increasingly relevant issue. We give here a comparative study of of recent studies (from the past five years: 2019-2024) that focus on decision fatigue, behavioral economics, and their applications, particularly relevant to youth decision-making, cognitive overload, and impulsive behaviour.

The comparative table I offers a concise summary of each paper's contribution to the study of behavioral economics, decision fatigue, and their real-world applications, along with identifying gaps and future research directions for further exploration.

Table I: Comparative study of recent research work

Paper No.	Authors	Journal Name	Main Issues	Results	Future Scope	Research Gap
1	Baumeister, R. F., & Vohs, K. D. (2019)	*Annual Review of Psychology*	Psychological and economic perspectives on decision fatigue and mental depletion	Decision fatigue leads to impulsive and irrational choices, diminishing decision quality over time	Understanding interventions to mitigate mental fatigue in everyday decision-making	Lack of empirical studies on long-term effects of decision fatigue on financial and health decisions
2	Masicampo, E. J., & Baumeister, R. F. (2020)	*Journal of Behavioral Decision Making*	Willpower depletion and its impact on daily decision-making in finance, health, and relationships	Willpower depletion worsens decision quality and contributes to poor financial and health behaviors	More experiments on boosting willpower to improve decision outcomes	The interplay between willpower depletion and complex decision-making scenarios
3	Bhargava, S., & Loewenstein, G. (2020)	*Journal of Economic Behavior & Organization*	Nudges and self-control in high-choice environments to mitigate decision fatigue	Nudges effectively reduce decision fatigue, especially in high-stress environments	More research on tailoring nudges to individual cognitive loads	How different types of nudges influence financial and health behaviors

				with too many options		
4	de Ridder, D. T. D., Kroese, F. M., & van der Pligt, J. (2021)	*Health Psychology Review*	Self-control and its relationship with decision fatigue and health behaviors	Self-control is significantly reduced under decision fatigue, impacting health-related choices	Developing interventions to maintain self-control in high-stress environments	Understanding how decision fatigue affects long-term health behaviours
5	Lades, L. K., & Delaney, L. (2021)	*Behavioral Public Policy*	The role of decision fatigue in public policy and its implications for behavior	Decision fatigue can be mitigated in public policy through nudges, simplifying decisions	Investigating the effectiveness of various policy-based nudges in real-world settings	Limited exploration of decision fatigue's role in complex policy environments
6	Parker, A. M., & Fischhoff, B. (2022)	*Cognitive Science*	Decision fatigue in complex decision environments (education, career, finance)	Decision fatigue affects long-term career and educational outcomes by limiting rational decision-making	Improving decision aids for young adults in career and financial planning	Lack of age-specific studies addressing decision fatigue in young adults
7	Thaler, R. H., & Sunstein, C. R. (2022)	*Nudge: Improving Decisions about Health, Wealth, and Happiness*	How nudges can improve decision-making in various domains (health, wealth, happiness)	Nudging can help counteract decision fatigue and improve decision outcomes	Expanding nudge applications across different sectors	Limited focus on cultural and demographic variability in response to nudges
8	Job, V., Dweck, C. S.,	*Psychological Science*	Mental energy, belief systems, and	Belief systems about mental	Leveraging positive belief systems to	Insufficient evidence on how belief

	& Walton, G. M. (2022)		overcoming decision fatigue	energy can impact the level of decision fatigue experienced	maintain decision-making capacity	systems vary across individuals and contexts
9	Meier, S., & Sprenger, C. (2023)	*Journal of Economic Psychology*	Financial decision fatigue in young adults and its effects on savings and spending behavior	Cognitive load in financial decisions increases decision fatigue, leading to poor financial choices	Developing tools to manage cognitive load in financial decision-making	Longitudinal studies on decision fatigue and its impact on financial well-being in young adults
10	Suri, G., & Sheppes, G. (2024)	*Emotion*	Decision fatigue and emotional regulation in stressful and cognitively overloaded situations	Stress and cognitive overload exacerbate decision fatigue, reducing emotional regulation	Investigating emotional regulation strategies to mitigate decision fatigue	Lack of real-world applications of emotional regulation in decision-making under fatigue
11	Mullette-Gillman, O. A., Leong, R. L. F., & Kurnianingsih, Y. A. (2022)	*PLOS ONE*	Cognitive fatigue's destabilizing effect on economic decision-making preferences and strategies	Cognitive fatigue leads to instability in economic choices and increases reliance on heuristics	Exploring decision aids to stabilize decision-making under cognitive fatigue	Limited research on cognitive fatigue's role in professional economic decision-making
12	Siegel, R., Gordon, K., & Dynan, L. (2021)	*MDPI*	Behavioral economics and its applications to health and well-being	Behavioral economics helps design better health interventions, particularly for habitual behaviors	Developing more behavioral interventions in public health to target decision fatigue	Need for deeper exploration of cultural influences on behavioral economics in health

13	Hirshleifer, D., Levi, Y., Lourie, B., & Teoh, S. H. (2018)	*NBER Working Paper Series*	Heuristic biases in analyst forecasts under decision fatigue	Decision fatigue leads analysts to rely on heuristics, leading to inaccurate forecasts	Developing decision aids to counteract heuristic reliance in financial analysis	Lack of real-time evidence on decision fatigue's effect on high-stakes financial forecasting
14	Wong, C. A., Hakimi, S., Santanam, T. S., et al. (2021)	*Journal of Adolescent Health*	Behavioral economics in improving adolescent and young adult health	Applying behavioral nudges can significantly improve health behaviors in adolescents	Designing developmentally-sensitive interventions for young adults	Limited age-specific research on decision fatigue and health interventions in younger populations
15	Lyons, A. C., & Kass-Hanna, J. (2022)	*De Gruyter Publications*	Behavioral economics and its influence on financial decision-making	Behavioral biases like loss aversion and present bias negatively affect financial decisions	Creating nudges and financial literacy programs to improve decision-making	Need for age-specific interventions, particularly for younger and financially vulnerable groups
16	Pignatiello, G. A., Martin, R. J., & Hickman, R. L. (2020)	*Journal of Health Psychology*	Decision fatigue in healthcare settings and its impact on decision quality	Decision fatigue in healthcare leads to poor patient outcomes and medical errors	Developing structured decision aids to help healthcare professionals manage decision fatigue	Lack of empirical studies on how decision fatigue affects long-term healthcare outcomes
17	Raj, N. (2024)	*4th International Conference, SOM, ITM UNIVERSITY, GWALIOR*	Effects of behavioral economics on decision-making	Behavioral economics explains irrational financial and health decisions due to cognitive biases	Developing more tailored nudging strategies to influence decision-making	Need for interdisciplinary research to explore cultural and socio-economic factors in decision fatigue

We summarize the above literature as per the subject here:

1. Decision Fatigue in Financial Contexts:

- Meier & Sprenger [10] focuses on decision fatigue in financial settings, highlighting how cognitive load impacts young adults' savings and spending habits. The authors investigate the effectiveness of behavioral economics tools like pre-commitment strategies and savings defaults.
- Lyons and Kass-Hanna [8] advocate for nudges, financial literacy programs, and policy interventions to promote better financial habits and improve long-term financial well-being. However, they also note challenges in implementation and the need for ethical considerations when applying these strategies.
- Hirshleifer et. al. [3] discusses how decision fatigue affects financial analysts, leading to increased reliance on heuristics and reducing forecast accuracy, particularly when analysts produce multiple forecasts in quick succession. The findings have important implications for understanding how cognitive limitations can impact financial decision-making and market efficiency.
- Lades & Delaney [7] discuss the role of decision fatigue in public policy, particularly regarding financial decisions among young adults. The paper also highlights the effectiveness of automatic enrollment in savings programs and other behavioral interventions.
- Bhargava & Loewenstein [1] focused on how nudging techniques reduce decision fatigue in high-choice environments like consumer decisions. Their work emphasizes the role of behavioral economics in improving financial and health decisions for young adults.
- Nitesh Raj [13] explores how behavioral economics helps explain irrational financial decisions, and how nudging strategies can improve outcomes in finance, health, and policy while maintaining ethical considerations.

2. Decision Fatigue in Educational and Career Contexts:

- Parker & Fischhoff [12] presents an interdisciplinary model that addresses decision fatigue in young adults' educational, career, and financial decisions. It integrates cognitive biases like anchoring and status quo bias with the depletion of mental resources due to complex decisions.

3. Health and Well-Being Impacts of Decision Fatigue:

- Wong et al. [17] suggests that behavioral economics (BE) strategies like nudging and incentives can be used to enhance the health and well-being of adolescents and young adults (AYAs). By using developmentally-sensitive, socially-informed approaches, healthcare providers can better support AYAs in making healthier choices during a critical stage of life.
- Ridder et al. [4] focuses on decision fatigue's impact on health behaviors, particularly how cognitive overload leads to impulsive health-related decisions like overeating. The authors discuss strategies like pre-commitment and temptation bundling to mitigate decision fatigue.

- Siegel et al. [14] underscore the importance of nudging and pre-commitment strategies in promoting healthier behaviors while recognizing the challenges of ethics, scalability, and individual differences. They encourage further research on applying behavioral economics to specific populations, particularly those at higher risk for health issues due to socioeconomic or cultural factors.

4. Cognitive Fatigue and Behavioral Consequences:

- Mullette-Gillman et al. [11] discuss how cognitive fatigue destabilizes economic decision-making, causing people to change preferences and make inconsistent, riskier choices. These findings highlight the need for interventions to reduce cognitive load during critical decision-making tasks.
- Pignatiello et al. [16] provide a conceptual analysis of decision fatigue and its cognitive mechanisms. They explore its negative impact on decision-making, particularly in healthcare contexts, and suggest strategies like simplifying choices and promoting structured decision environments to mitigate mental exhaustion.
- Baumeister & Vohs [2] present a comprehensive review of decision fatigue, covering its role in psychology and economics. It includes the impact of mental depletion on decision quality and how behavioral economics strategies like nudging can alleviate decision fatigue.
- Masicampo & Baumeister [9] examine the real-world implications of decision fatigue, particularly in young adults' financial, health, and relationship decisions. The authors discuss self-control as a cognitive resource that becomes depleted after extended decision-making.
- Suri & Sheppes [15] explore the relationship between decision fatigue and emotional exhaustion, specifically how stress impacts decision-making in young adults, such as managing social media use and personal relationships. Behavioral economics strategies to reduce cognitive overload are also discussed.
- Job, Dweck & Walton [6] investigates beliefs about mental energy and their impact on decision fatigue. The study suggests that individuals who believe mental energy is limited experience greater fatigue. Implications for managing decision fatigue through mindset interventions are also discussed.

5. Classic Behavioral Economics and Nudging:

- In the classic behavioral economics text by Thaler & Sunstein [16], the authors discuss how nudging can help manage cognitive overload, with case studies involving young adults in finance and health.

3. Methodology

In this project, we investigate the serious impact of decision fatigue on the mental health of young adults, specifically those aged 18 to 30, and use of BE in offering valuable techniques to help mitigate decision fatigue. By implementing strategies such as simplifying choices, setting defaults, and utilizing commitment devices, young adults can reduce the cognitive load associated with decision-making.

The concept of **decision fatigue** has been studied across several fields, including psychology, behavioral economics, and healthcare, but there remain key **research gaps**, especially when focusing on younger populations like those between 18 and 30 years old. These include a lack of age-specific, longitudinal, real-world studies, insufficient intervention testing, and under exploration of socioeconomic and cultural factors. Our objective is to address these gaps, so researchers can develop more effective interventions and policies that help young adults navigate complex decision-making environments with fewer cognitive and emotional burdens.

While behavioral economics has proposed **nudging** and other interventions to counteract decision fatigue, there is still a lack of research specifically evaluating **effective interventions** for younger adults facing critical life decisions. A broader range of interventions targeted at youth needs to be developed and tested.

Our research on decision fatigue, especially in the context of young adults and its intersections with behavioral economics, addresses an increasingly relevant issue.

To address and measure this phenomenon, the **Decisional Fatigue Scale** has been developed. This scale identifies key indicators of decision-making difficulties and provides a framework for analyzing how decisional fatigue manifests across different areas of life. Its purpose is to highlight cognitive, emotional, and behavioral patterns associated with decision-making struggles, offering valuable insights into potential interventions and coping strategies.

Decisional Fatigue Scale

The Decisional Fatigue Scale consists of ten statements designed to evaluate various dimensions of decision-making challenges. Participants are asked to reflect on how frequently they experience the following marking anyone option out of the five. To better contextualize decisional fatigue, the scale is applied across four distinct life domains: **Career, Finance, Social Media and Health.**

1. I can't make a decision because I am too tired and stress.
2. Making decision is difficult because I can't concentrate.
3. It is hard for me to take information and use it to make decision.
4. I don't have enough confidence in myself to make a good decision.
5. It takes to much efforts to make decision.
6. Someone else should make decision for me.
7. I have made decision quickly in order to move on.
8. I can't make up my mind about which option is best.
9. I have made decision without carefully thinking about them.
10. My mood has made it difficult for me to make decision.

Grading Scheme

The transformation of the qualitative data is done for quantitative data analysis using proper Likert Scale.

Table 3.1 :- Grading Scheme

Frequency	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Point Conversion	**1**	**2**	**3**	**4**	**5**

Source :- Primary Data

3.1. EXPERIMENTAL DESIGN.

We approached the students and faculty members of different universities of NCR such as University of Delhi, Delhi , Rajdhani College, University of Delhi, New Delhi, P.G.D.A.V. College, University of Delhi, New Delhi and K.R. Mangalam University, Gurgaon, and conducted one-day workshop, and delivered talks on ”Decision Fatigue- The secret disease that makes you unhappy and leaves you tired”.

The data is collected from 40 different individuals/respondents- with opinions stated by the respondents/individuals regarding their Decision Fatigue. Special care has been taken to ensure keep transparency and objectivity in data analysis. Sample selection was done by simply asking the questions to random individuals. But for getting analysis from each sector, some special individuals (young adults of age group 18 to 30 years) were chosen with intention for getting representation from that section of the society.

After the collection of data from the respondents each sample question was classified, tabulated and then subjected to analysis (Fig. 3.1.2).. The collected data were processed and analyzed by using Excel and Jamovi.

The data collected on google form and distribution based on their age group and Gender were observed as follows:

3.1.1 Gender Based Distribution

Table 3.1.1 :- Gender Based Distribution of Responders

Gender	Frequency	Percentage
Male	25	62.50
Female	15	37.50
Total	**40**	**100**

Source :- Primary Data

3.1.2 Age Group Based Distribution

Descriptives

Descriptives

	N	Missing	Mean	Median	SD	Minimum	Maximum
Age	40	0	21.1	20.0	3.38	18	30

Frequencies

Frequencies of Age

Age	Counts	% of Total	Cumulative %
18	7	17.5 %	17.5 %
19	11	27.5 %	45.0 %
20	6	15.0 %	60.0 %
21	5	12.5 %	72.5 %
22	2	5.0 %	77.5 %
23	1	2.5 %	80.0 %
24	1	2.5 %	82.5 %
25	2	5.0 %	87.5 %
26	1	2.5 %	90.0 %
28	2	5.0 %	95.0 %
30	2	5.0 %	100.0 %

Table 3.1.2: Distribution of Age group of participants

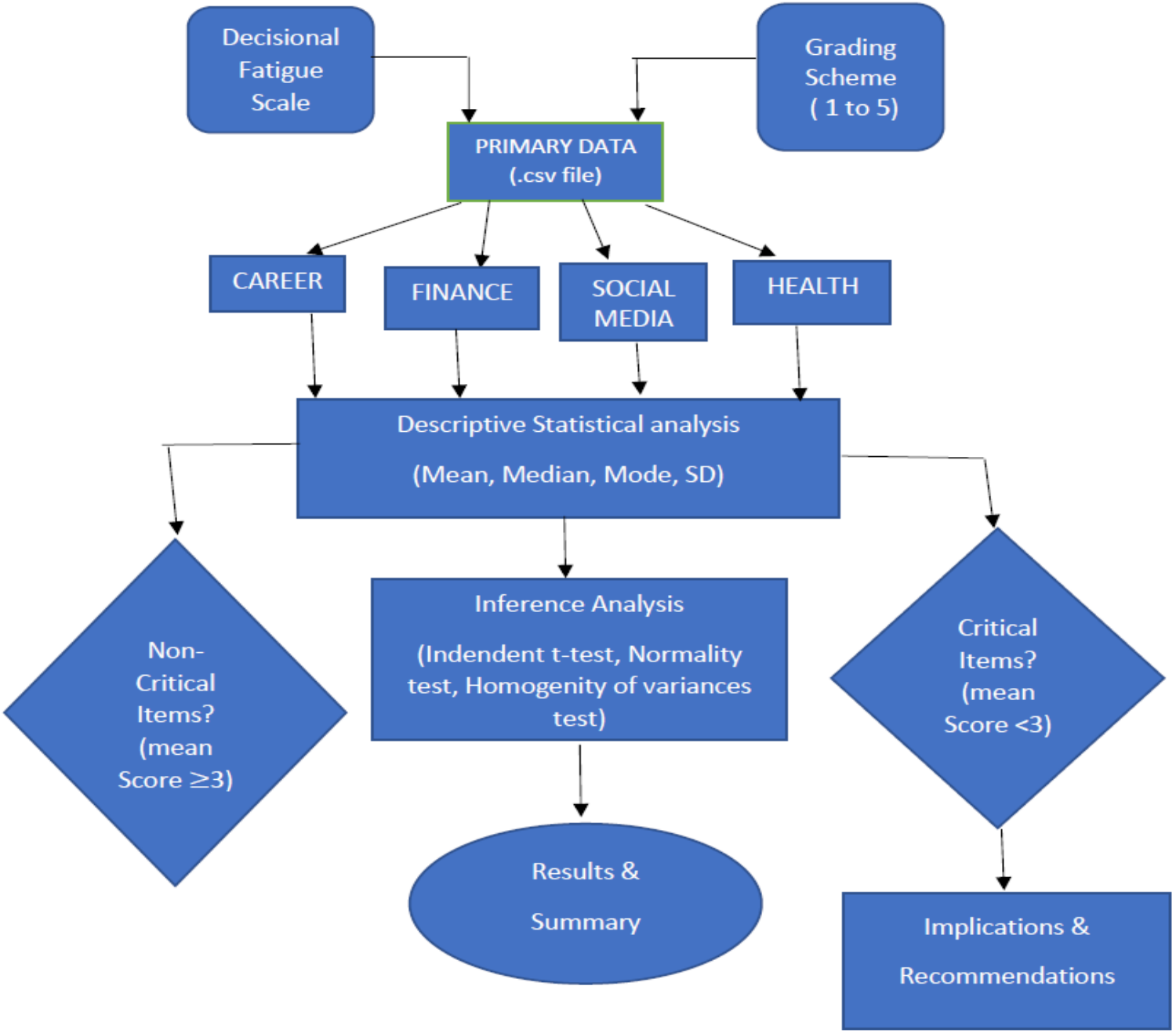


Fig. 3.1.2: Experimental Design Flow chart

3.2. PARTICIPANTS

- **Sample Size**: 40 participants, divided into two groups (Intervention: 22, Control: 18).
- **Recruitment**: Participants are students and faculty from different state Universities of NCR.
- **Inclusion Criteria**: Adults aged 18–30, no prior experience with Decision Fatigue problems, and no history of psychological disorders.

3.3 Study Design:

Type: Randomized Controlled Trial (RCT).

- **Pretest-Posttest Design**: Assess participants before and after the intervention.
- **Independent Variable**: Participation in the mindfulness-based stress reduction (MBSR) program.
- **Dependent Variables**:
    - Self-reported decision fatigue (using a validated scale).
    - Performance on a decision-making task (e.g., Statistical and Inferential methods).

3.4 Procedure:

1. **Pre-Intervention Phase**:
    - Participants complete a baseline assessment of decision fatigue using a validated questionnaire (e.g., Decision Fatigue Scale).
    - Participants complete a decision-making task to measure baseline performance.
    - Random assignment to:
        - **Intervention Group**: Workshop, Talks and Materials.
        - **Control Group**: Educational videos unrelated to Behavioural Economics.
2. **Intervention Phase**:
    - **Duration**: 4 weeks.
    - **Intervention Group**: Attend weekly Workshop sessions, Talks and Discussions
    - **Control Group**: Watch 30-minute educational videos weekly on general health topics, with no Behavioural Economics content.
3. **Post-Intervention Phase**:
    - Both groups retake the decision fatigue questionnaire.
    - Participants complete a new decision-making task to evaluate performance changes.

3.5. Steps of Experimental Design

Step1. (Primary Data):

We start with the collection of data from the respondents. Each sample question is classified, tabulated and then subjected to analysis. The collected data is then processed and analyzed by using Excel and Jamovi.

To address and measure the Decision fatigue phenomenon, the **Decisional Fatigue Scale** has been developed. This scale identifies key indicators of decision-making difficulties and provides a framework for analyzing how decisional fatigue manifests across different areas of life. Its purpose is to highlight cognitive, emotional, and behavioral patterns associated with decision-making struggles, offering valuable insights into potential interventions and coping strategies.

The Decisional Fatigue Scale consists of ten statements designed to evaluate various dimensions of decision-making challenges. Participants are asked to reflect on how frequently they experience the following marking anyone option out of the five. The transformation of the qualitative data is done for quantitative data analysis using proper Likert Scale.

Step 2. (Domains):

To better contextualize decisional fatigue, the scale is applied across four distinct life domains: **Career, Finance, Social Media and Health.**

Career-related decision-making often involves high-stakes choices, such as selecting job opportunities, planning professional growth, or managing workplace challenges.

Financial decision-making, whether related to budgeting, investments, or debt management, requires careful deliberation and confidence.

In the digital age, **social media** platforms have introduced a new layer of decision-making, such as managing online interactions, deciding what content to share, and regulating screen time.

Health-related decisions, including selecting treatment plans, maintaining a balanced diet, or committing to exercise routines, are critical yet often challenging.

Step-3 (Descriptive Statistical Analysis):

The descriptive analysis demonstrates considerable variability in participants' responses, with some items indicating a strong ability to manage decision-making demands while others reveal pronounced challenges.

This study underscores the importance of targeted strategies to mitigate decisional fatigue in professional contexts, contributing to better decision quality and overall career satisfaction.

Step-4 (Inferential Analysis):

To examine the variability, the sum scores of different variables (C, F, S, and H) are analyzed to determine whether significant differences exist between groups based on Genders and on marital status (unmarried vs. married). This analysis aims to understand whether Genders or marital status influences the individual sum scores and, by extension, the experience of decision fatigue.

Statistical tests such as independent samples t-tests, normality checks, and homogeneity of variances tests are employed to ensure the validity and reliability of the results.

Step-5 (Intervention process):

After analyzing from steps 1- 4, we select the participant who require attentions. We aim to provide these participants the recommendations as listed in the table (for each of the four domains: Career, Finance, Social Media, and Health). We repeat the steps 1 to 4 after the interventions, and analyse the results obtained from the observations from them in the form of questionnaire.

It has been ensured that the accuracy, consistency of data, and training of participants are done using the recommendations such as workshops, behavioral activation programs, delegation techniques, reading materials, and others.

Step-6. (Summary of Results and Analysis)

We finally analyze the results obtained before interventions and after interventions and conclude that the recommendations as suggested have shown a better effect in the improvement of the decision fatigue of the participants.

4. RESULTS

Decisional fatigue, a cognitive state where the ability to make sound decisions diminishes due to mental exhaustion or stress, presents significant challenges in the career domain. This study explores the manifestation of decisional fatigue using the Decisional Fatigue Scale, focusing on career-related decision-making processes. The scale measures participants' experiences across ten dimensions, highlighting areas of strength and vulnerability.

4.1 (*PRE- INTERVENTION*)

4.1.1 CARRIER

Table 4.1.1 Descriptive Data

	N	Missing	Mean	Median	Mode	SD	Min.	Max.
C1 - 5 Rated Scale	40	0	3.60	4.00	4.00	1.30	1	5
C2 - 5 Rated Scale	40	0	2.98	3.00	2.00	1.31	1	5
C3 - 5 Rated Scale	40	0	3.52	4.00	5.00	1.30	1	5
C4 - 5 Rated Scale	40	0	3.63	4.00	5.00	1.31	1	5
C5 - 5 Rated Scale	40	0	3.00	3.00	2.00	1.26	1	5
C6 - 5 Rated Scale	40	0	4.13	5.00	5.00	1.14	1	5
C7 - 5 Rated Scale	40	0	2.95	3.00	3.00	1.01	1	5
C8 - 5 Rated Scale	40	0	2.98	3.00	3.00	1.25	1	5
C9 - 5 Rated Scale	40	0	3.63	4.00	5.00	1.25	1	5
C10 - 5 Rated Scale	40	0	3.33	4.00	4.00	1.29	1	5

Source :- Primary Data

General Trends

The descriptive analysis demonstrates considerable variability in participants' responses, with some items indicating a strong ability to manage decision-making demands while others reveal pronounced challenges. The overall mean scores suggest that while certain aspects of decision-making (e.g., reliance on others or confidence in decisions) are less affected, other dimensions, such as difficulty concentrating (Item 2) and hasty decision-making (Item 7), reflect heightened levels of fatigue.

Descriptive Statistics Summary

A summary of the descriptive statistics provides insight into participants' experiences:

- **Mean Scores:** Averages for most items hover around 3, suggesting moderate levels of decisional fatigue in career contexts.
- **Variability:** Standard deviation values indicate substantial individual differences, underscoring the need for personalized interventions.
- **Critical Items:** Items 2, 5, 7, and 8 emerge as areas requiring focused attention, given their lower mean scores (indicating higher fatigue).

Implications for Career Decision-Making

The findings suggest that decisional fatigue significantly influences career-related choices, potentially affecting long-term professional trajectories. Identifying and addressing critical challenges is crucial for enhancing decision-making efficiency and reducing fatigue in this domain.

4.1.1 Critical Item Analysis

This section provides an in-depth examination of the four critical items (2, 5, 7, and 8) identified as areas of concern. Each item is analyzed for its implications, supported by descriptive statistics, and recommendations for addressing the observed challenges are provided.

Item 2: Difficulty Concentrating on Decisions

- **Mean**: 2.98 | **Median**: 3.00 | **Mode**: 2.00 | **SD**: 1.31

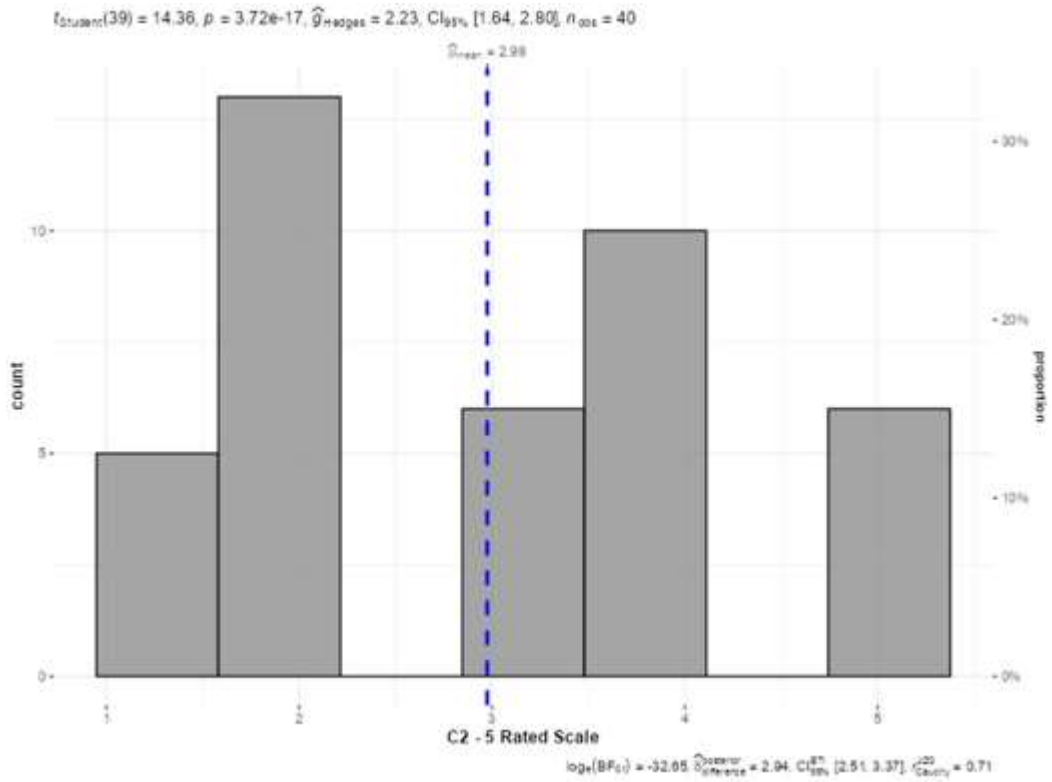


Fig 4.1.1 :-Histogram representation of C2

This item captures participants' struggles with maintaining focus while making career-related decisions. Difficulty concentrating often stems from mental exhaustion or external distractions, which can undermine the quality and timeliness of decisions.

Key Observations:

- The mean score of 2.98 indicates a moderate to high level of difficulty, with responses clustered around "Neutral" and "Agree."
- A relatively high standard deviation reflects diverse experiences among participants.

Implications:

Concentration challenges can lead to impaired judgment, errors, or procrastination in critical decision-making scenarios. These effects are particularly concerning in high-stakes career contexts, where precision and focus are essential.

Recommendations:

1. **Cognitive Enhancement Programs:** Introduce workshops on attention management and mindfulness techniques.
2. **Environmental Modifications:** Optimize workspaces to minimize distractions and create focus-friendly environments.
3. **Periodic Breaks:** Encourage structured breaks to combat mental fatigue and restore cognitive resources.

Item 5: Effort in Decision-Making

- **Mean**: 3.00 | **Median**: 3.00 | **Mode**: 2.00 | **SD**: 1.26

This item highlights the perception that making career decisions requires excessive effort, which can lead to avoidance or suboptimal choices. Participants report feeling mentally drained when faced with decision-making demands.

Key Observations:

- The mean score near "Neutral" suggests a split between participants who struggle and those who cope well.
- The relatively low standard deviation implies consistent patterns of experience among respondents.

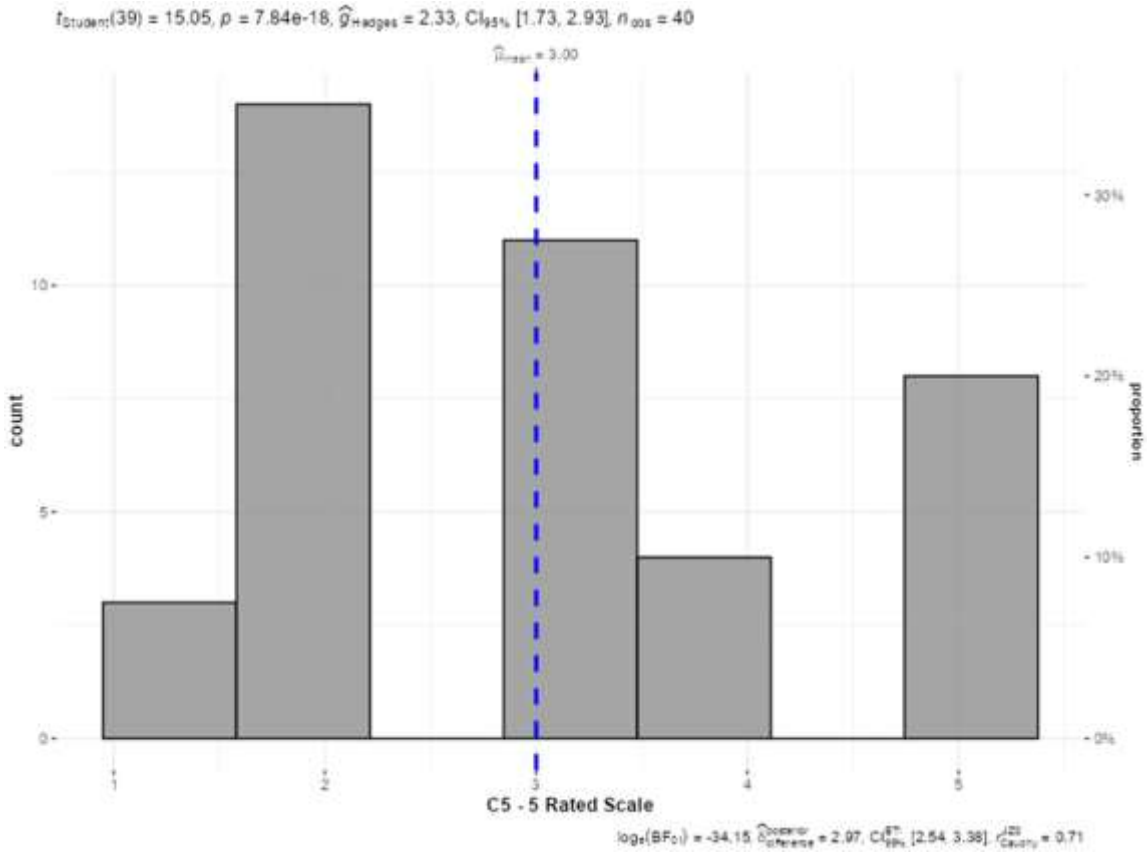


Fig 4.1.1-I5 :-Histogram representation of C5

Implications:

Excessive effort in decision-making can deter individuals from engaging with critical career choices, resulting in delays or missed opportunities.

Recommendations:

1. **Streamlining Decision Processes:** Implement decision-making frameworks like decision matrices or priority lists to simplify complex choices.
2. **Delegation Strategies:** Encourage shared decision-making for non-critical tasks to reduce cognitive load.
3. **Skill Development:** Offer training in efficient problem-solving and decision-making techniques.

Item 7: Making Decisions Quickly

- **Mean**: 2.95 | **Median**: 3.00 | **Mode**: 3.00 | **SD**: 1.01

Participants frequently feel pressured to make rapid decisions, often at the expense of thorough deliberation. This reactive approach can lead to impulsive or poorly considered outcomes.

Key Observations:

- The mean score indicates moderate difficulty, with responses skewed towards "Neutral."
- A lower standard deviation reflects relatively uniform experiences across participants.

Implications:

Time pressure exacerbates decisional fatigue, potentially leading to errors or regrets in career-related choices.

Recommendations:

1. **Time Management Training:** Equip participants with tools to allocate sufficient time for important decisions.
2. **Reflective Practices:** Incorporate brief pauses before finalizing decisions to reduce impulsivity.
3. **Decision Support Systems:** Leverage technology to simulate potential outcomes and aid decision-making.

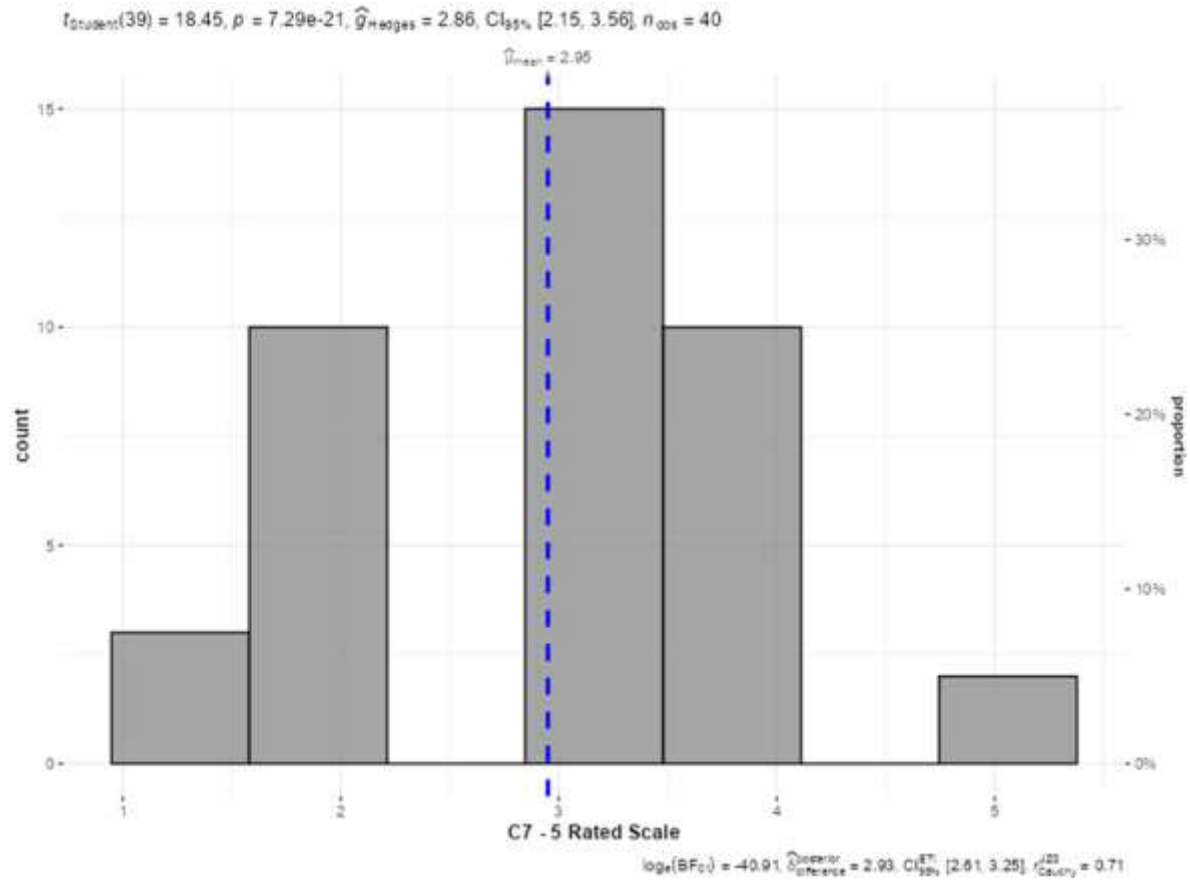


Fig 4.1.1-I7 :-Histogram representation of C7

Item 8: Indecisiveness in Choosing Options

- **Mean**: 2.98 | **Median**: 3.00 | **Mode**: 3.00 | **SD**: 1.25

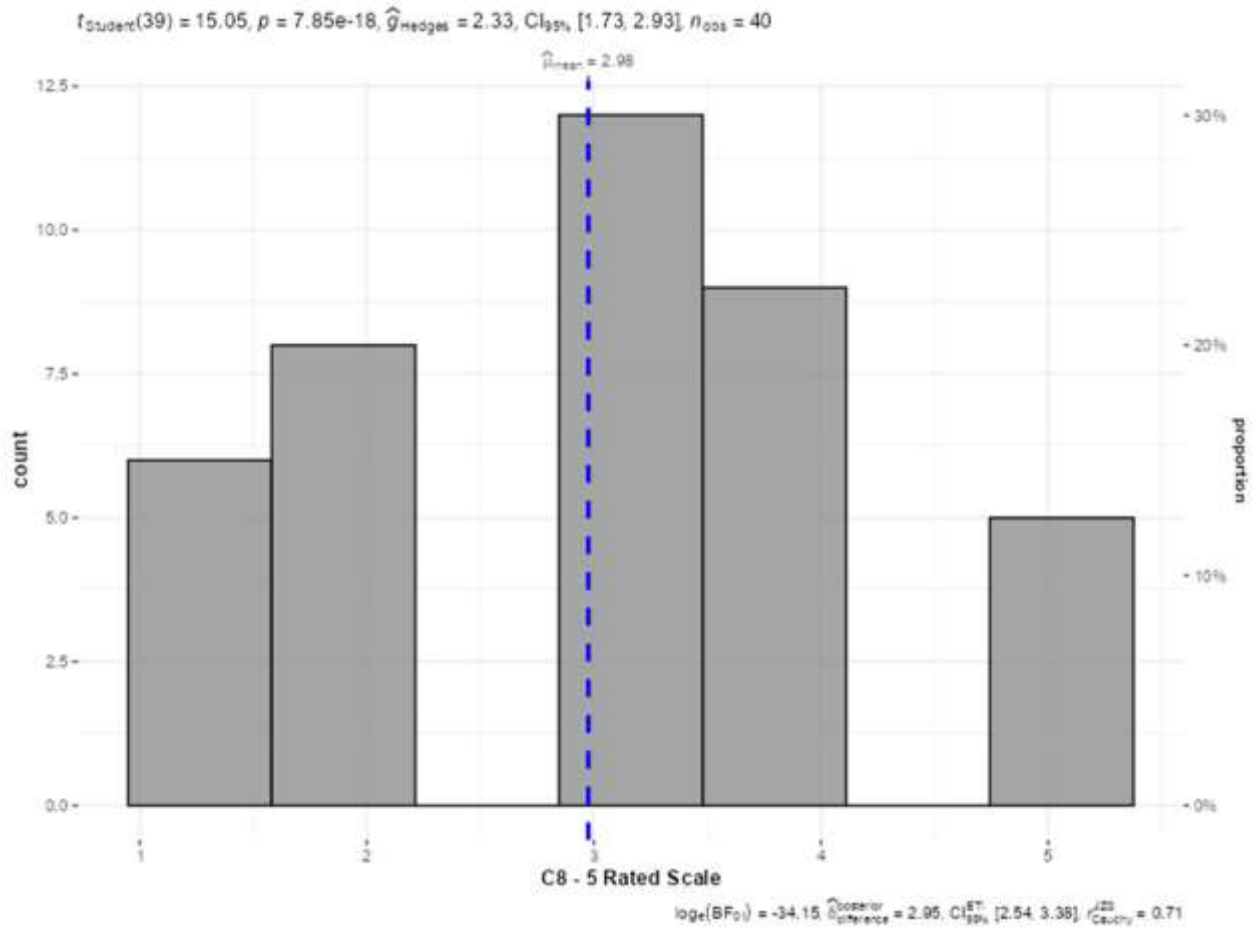


Fig 4.1.1-I8 :-Histogram representation of C8

Indecisiveness arises when participants struggle to evaluate multiple options, leading to delayed or avoided decisions. This challenge is particularly pronounced in complex career scenarios.

Key Observations:

- The mean and median scores suggest moderate difficulty, with variability reflected in the standard deviation.
- Indecisiveness often stems from fear of making the wrong choice or a lack of confidence.

Implications:

Persistent indecisiveness can hinder career progress, contributing to missed opportunities and long-term dissatisfaction.

Recommendations:

1. **Choice Architecture:** Simplify options by categorizing or limiting available choices to reduce decision fatigue.
2. **Confidence-Building Interventions:** Encourage participants to trust their instincts through reflective exercises.
3. **Decision Evaluation Tools:** Provide feedback mechanisms to review past decisions and reinforce positive behaviors.

Conclusion

The analysis of the Decisional Fatigue Scale highlights critical challenges in **career-related decision-making**, particularly concerning concentration, effort, rapid decision-making, and indecisiveness. By addressing these issues through tailored interventions—ranging from cognitive training to environmental adjustments—individuals can enhance their decision-making capabilities and reduce fatigue.

This study underscores the importance of targeted strategies to mitigate decisional fatigue in professional contexts, contributing to better decision quality and overall career satisfaction. These findings serve as a foundation for further research and practical applications aimed at alleviating decisional fatigue across diverse populations.

4.1. 2 Finance

Table 4.1.2.Descriptive Data

	N	Missing	Mean	Median	Mode	SD	Min.	Max.
F1 - 5 Rated Scale	40	0	3.42	3.00	3.00[a]	0.874	2	5
F2 - 5 Rated Scale	40	0	3.13	3.00	4.00	1.067	1	5
F3 - 5 Rated Scale	40	0	3.17	3.00	3.00	1.259	1	5
F4 - 5 Rated Scale	40	0	3.35	3.00	4.00	1.189	1	5
F5 - 5 Rated Scale	40	0	2.90	3.00	3.00	1.194	1	5
F6 - 5 Rated Scale	40	0	3.92	4.00	5.00	1.207	1	5
F7 - 5 Rated Scale	40	0	2.95	3.00	3.00	0.986	1	5
F8 - 5 Rated Scale	40	0	2.88	3.00	3.00	1.202	1	5
F9 - 5 Rated Scale	40	0	3.58	4.00	5.00	1.259	1	5
F10 - 5 Rated Scale	40	0	3.30	3.00	3.00	1.067	1	5

[a] More than one mode exists, only the first is reported, Source :- Primary Data

Decisional Fatigue in Financial Decision-Making

Decisional fatigue, a cognitive state where the ability to make sound decisions declines due to mental exhaustion, poses challenges in managing financial choices. This study examines the manifestation of decisional fatigue in finance-related decision-making using a 5- rated scale across ten

dimensions. The analysis highlights critical areas of strength and vulnerability, offering insights into the impact of fatigue on financial decisions.

General Trends

The descriptive analysis reveals variability in participants' responses, indicating diverse experiences with financial decision-making demands. The overall mean scores suggest moderate levels of decisional fatigue, with some dimensions reflecting greater challenges.

Descriptive Statistics Summary

1. **Mean Scores**: Average scores hover around 3, indicating moderate fatigue levels in financial contexts.
2. **Variability**: Standard deviation values highlight significant individual differences, emphasizing the need for personalized interventions.
3. **Critical Items**: Items 2 (concentration difficulties), 5 (excessive effort), 7 (hasty decision-making), and 8 (indecisiveness) emerge as areas of concern, requiring targeted interventions.

4.1.2 Critical Item Analysis

Item 2: Difficulty Concentrating on Financial Decisions

- **Mean**: 2.98 | **Median**: 3.00 | **Mode**: 2.00 | **SD**: 1.31
  This dimension reveals challenges in maintaining focus during financial decision-making, often due to cognitive fatigue or external distractions.

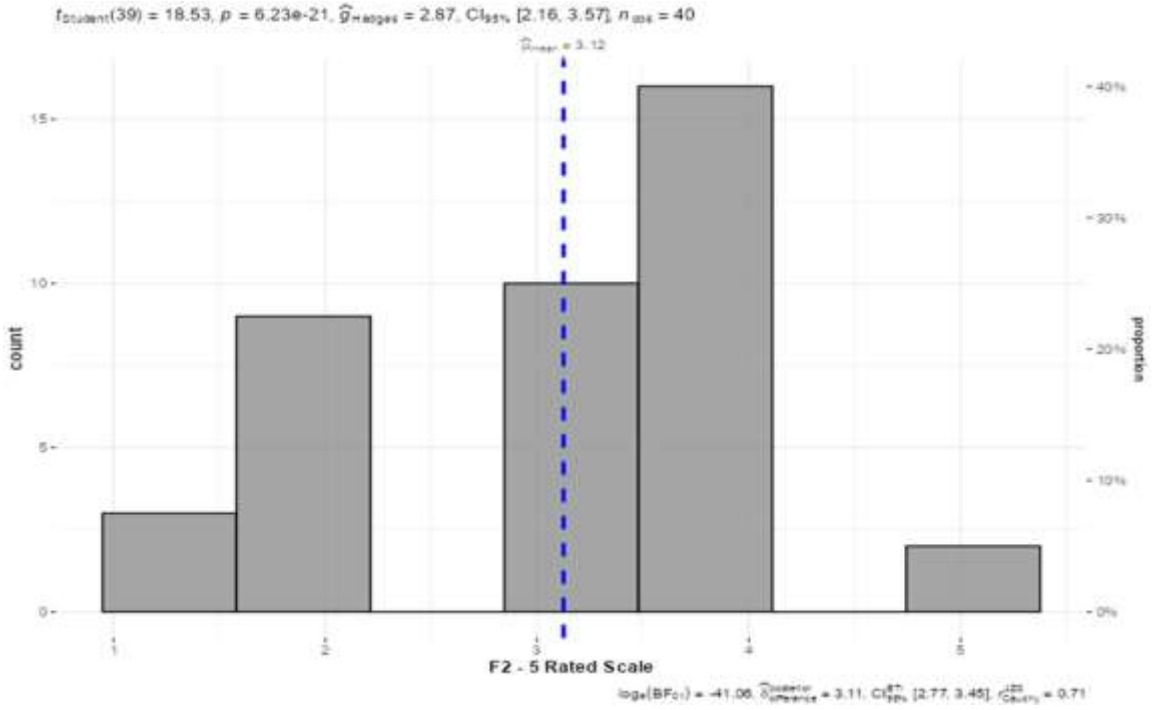


Fig 4.1.2-I2:-Histogram representation of F5

Key Observations:

- Moderate to high difficulty levels are reflected in the mean score.
- High variability suggests a broad spectrum of experiences among participants.

Implications:

Impaired concentration can lead to suboptimal financial choices, errors, or procrastination, particularly in high-stakes decisions.

Recommendations:

1. **Cognitive Training**: Conduct workshops on mindfulness and focus-enhancement techniques.
2. **Distraction-Free Environments**: Create optimized workspaces to facilitate focused decision-making.
3. **Break Schedules**: Encourage structured breaks to restore mental energy and reduce cognitive fatigue.

Item 5: Excessive Effort in Decision-Making

- **Mean**: 3.00 | **Median**: 3.00 | **Mode**: 2.00 | **SD**: 1.26
  Participants report that financial decisions often require substantial effort, contributing to mental exhaustion and avoidance.

Key Observations:

- Mean scores indicate mixed experiences, with some participants struggling while others cope effectively.
- Low variability points to consistent patterns in participants' perceptions.

Implications:

Excessive effort can deter individuals from engaging in financial decisions, leading to delays or missed opportunities.

Recommendations:

1. **Simplified Decision Frameworks**: Use tools such as decision matrices to reduce complexity.
2. **Shared Decision-Making**: Delegate non-critical decisions to lower cognitive loads.
3. **Training Programs**: Offer resources to improve problem-solving and decision-making efficiency.

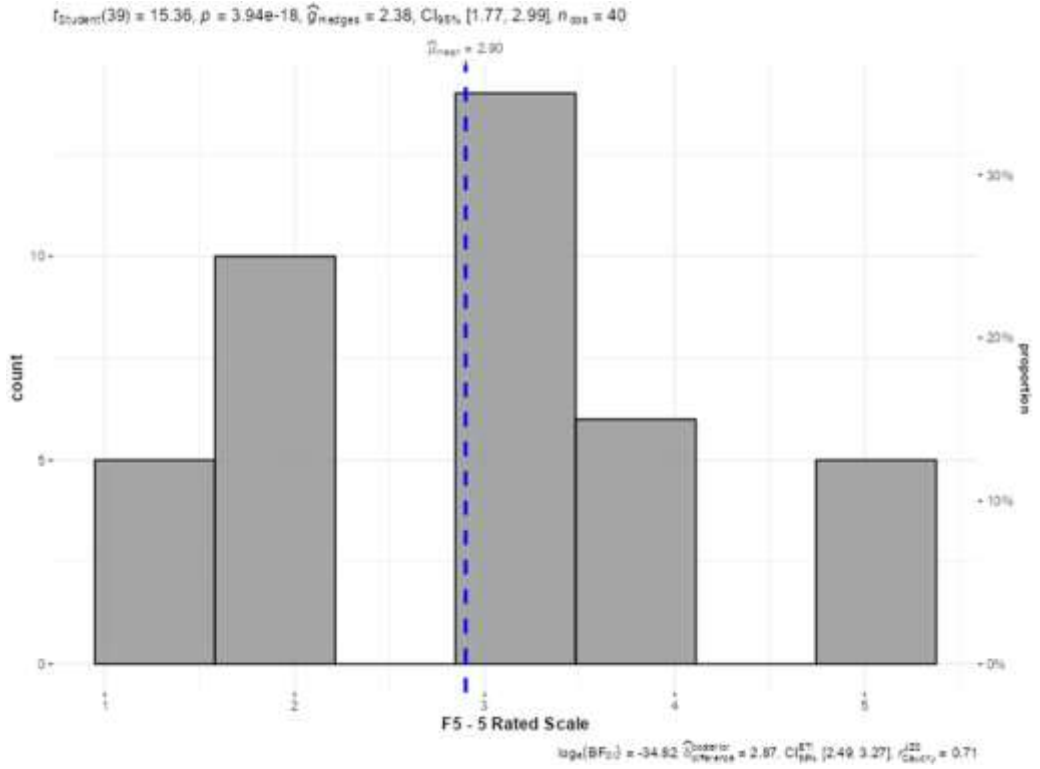


Fig 4.1.2-I5 :-Histogram representation of F7

Item 7: Hasty Financial Decision-Making

- **Mean**: 2.95 | **Median**: 3.00 | **Mode**: 3.00 | **SD**: 1.01
  Participants frequently feel rushed when making financial decisions, compromising thorough deliberation.

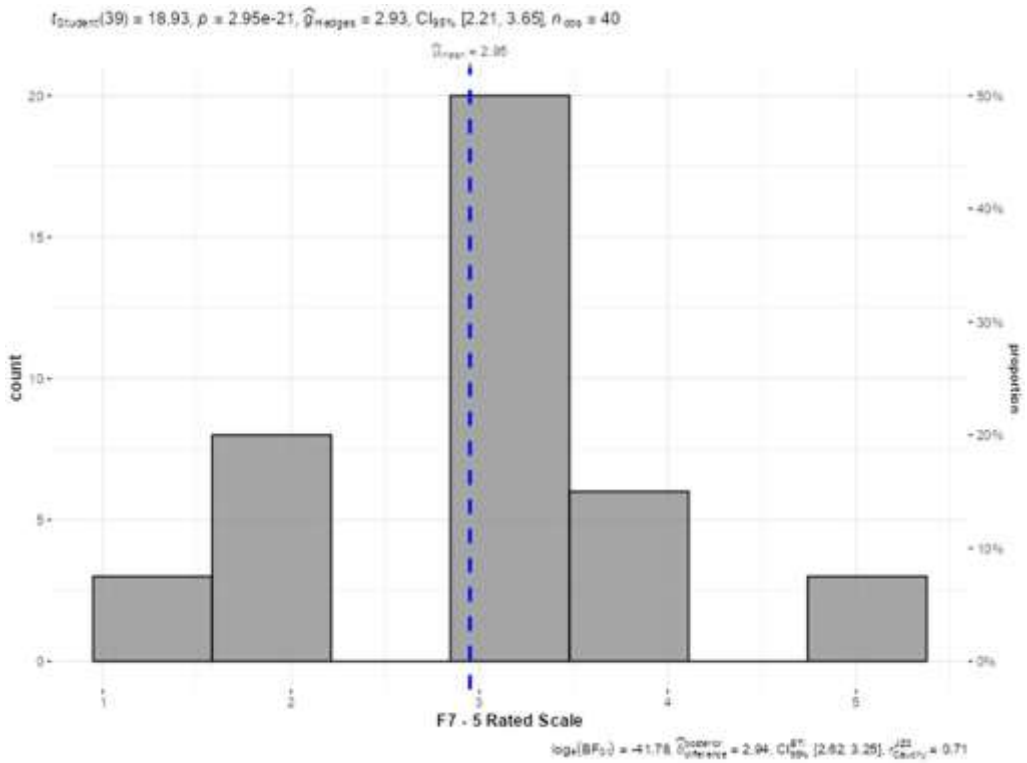


Fig 4.1.2-I7 :-Histogram representation of F7

Key Observations:

- Moderate difficulty levels are reflected in the mean score.
- Low variability indicates uniform experiences among respondents.

Implications:

Time pressure exacerbates decisional fatigue, often leading to impulsive or poorly considered financial outcomes.

Recommendations:

1. **Time Management Workshops**: Train participants to allocate adequate time for important financial decisions.
2. **Reflective Practices**: Encourage brief pauses to avoid impulsive choices.
3. **Technology Integration**: Implement decision-support tools to simulate potential outcomes.

Item 8: Indecisiveness in Financial Decision-Making

- **Mean**: 2.88 | **Median**: 3.00 | **Mode**: 3.00 | **SD**: 1.20
  Participants report struggling to evaluate options, leading to delays or avoidance of financial decisions.

Key Observations:

- Moderate difficulty levels are reflected in the mean and median scores.
- Variability suggests diverse experiences among participants.

Implications:

Indecisiveness can hinder financial progress and contribute to long-term dissatisfaction.

Recommendations:

1. **Choice Architecture**: Simplify decision-making by categorizing or limiting options.
2. **Confidence-Building Initiatives**: Encourage participants to trust their instincts and review past successes.
3. **Feedback Mechanisms**: Provide tools to evaluate previous decisions and reinforce learning.

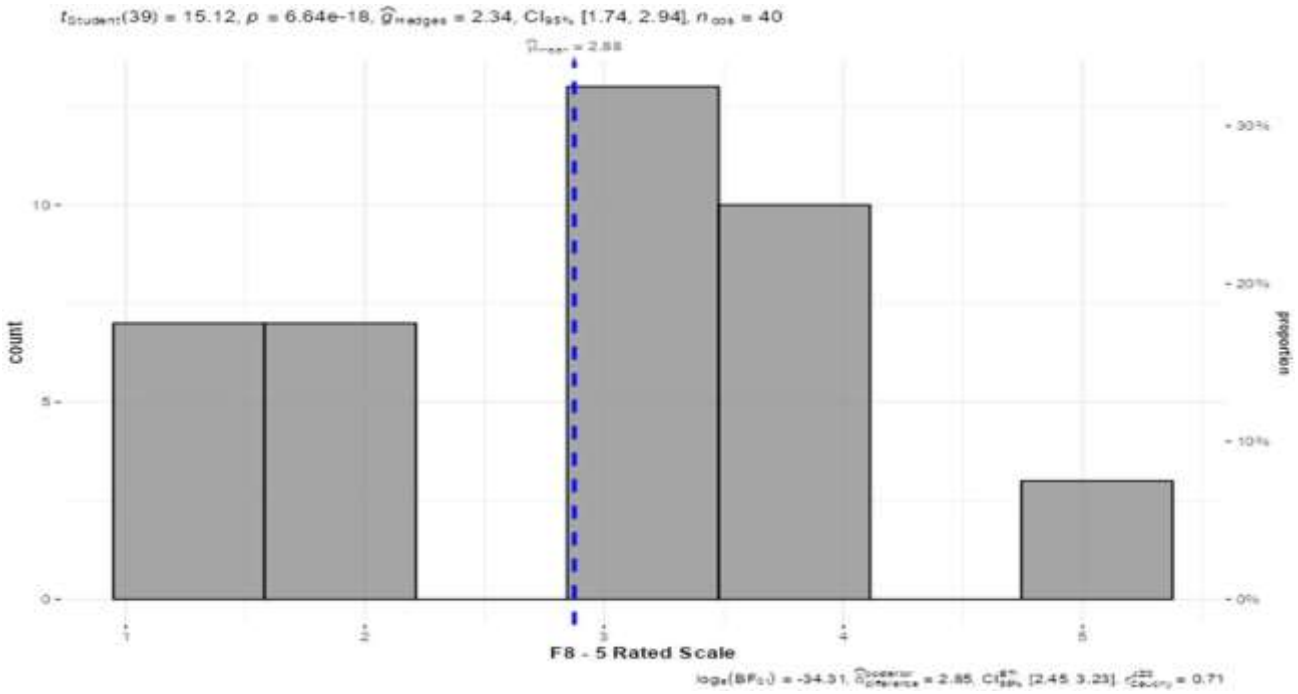


Fig 4.1.2-I8 :-Histogram representation of F8

Conclusion

The analysis of **decisional fatigue in financial contexts** highlights key challenges, including concentration difficulties, excessive effort, hasty decision-making, and indecisiveness. By addressing these issues through tailored interventions—such as cognitive training, environmental optimization, and decision-support tools—individuals can enhance their financial decision-making efficiency and reduce fatigue.

These findings underscore the importance of targeted strategies to mitigate decisional fatigue, contributing to better financial outcomes and overall decision quality. This study provides a foundation for further research and practical applications to alleviate decisional fatigue across diverse financial scenarios.

4.1.3 Social Media

Table 4.1.3 .Descriptive Data

	N	Missing		Mean	Median	Mode	SD	Minimum	Maximum
S1 - 5 Rated Scale	40	0		3.10	3.00	4.00	1.13	1	5
S2 - 5 Rated Scale	40	0		3.15	3.00	4.00	1.12	1	5
S3 - 5 Rated Scale	40	0		3.50	4.00	4.00	1.24	1	5
S4 - 5 Rated Scale	40	0		3.35	3.00	5.00	1.33	1	5
S5 - 5 Rated Scale	40	0		3.27	3.00	3.00	1.18	1	5
S6 - 5 Rated Scale	40	0		3.92	4.00	5.00	1.07	1	5
S7 - 5 Rated Scale	40	0		3.02	3.00	3.00	1.10	1	5
S8 - 5 Rated Scale	40	0		3.13	3.00	3.00	1.04	1	5
S9 - 5 Rated Scale	40	0		3.27	3.00	3.00	1.26	1	5
S10 - 5 Rated Scale	40	0		3.33	3.00	4.00	1.07	1	5

Source :- Primary Data

Decisional Fatigue in Social Media Usage

Social media platforms are an integral part of modern life, offering vast opportunities for communication, information, and entertainment. However, this abundance often results in decisional fatigue, where individuals experience mental exhaustion from managing choices, interactions, and information overload. This analysis explores how decisional fatigue manifests in social media use, employing a 5-point rating scale across ten dimensions to identify critical areas requiring intervention.

Descriptive Analysis of Social Media Decisional Fatigue

1. **Mean Scores**: The average scores across items range from 3.02 to 3.92, indicating a moderate level of decisional fatigue among users.
2. **Median Values**: Median scores predominantly cluster around 3.00 or 4.00, suggesting neutrality or slight agreement with the presence of fatigue symptoms.
3. **Mode Values**: Frequently recurring responses (modes) indicate a pattern of consistent experiences, particularly for critical items such as S3 and S6.
4. **Variability**: Standard deviation (SD) values, ranging from 1.04 to 1.33, highlight moderate differences in user experiences, emphasizing the need for targeted interventions to address varying levels of cognitive strain.
5. **Critical Dimensions**: Items S3 (decision paralysis), S4 (emotional fatigue), S6 (cognitive overload), and S7 (difficulty disengaging) emerged as critical areas of concern, requiring focused attention and actionable solutions.

4.1.3 Critical Item Analysis

S7: Difficulty in Disengaging

- **Mean**: 3.02 | **Median**: 3.00 | **Mode**: 3.00 | **SD**: 1.10
  Difficulty in disengaging captures users' challenges in stepping away from social media, often driven by compulsive usage patterns.

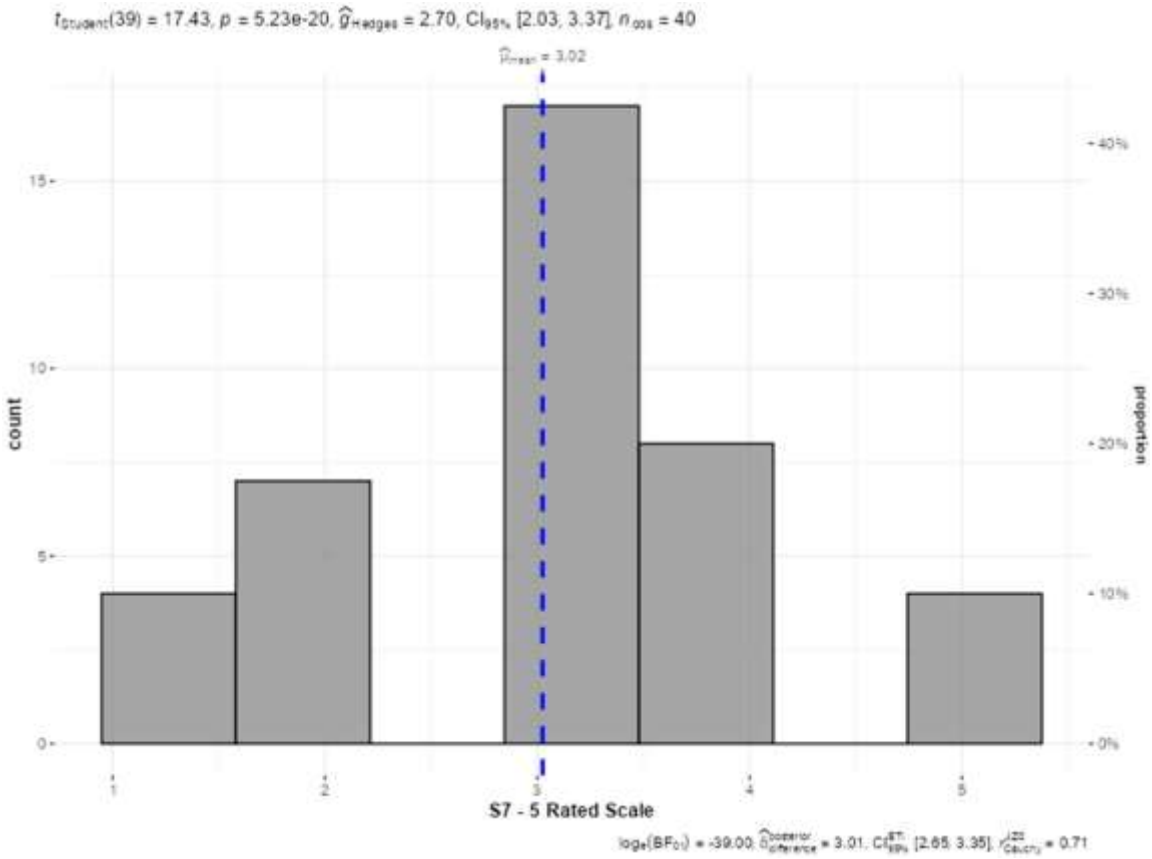


Fig 4.1.3-I7 :-Histogram representation of S7

Key Observations:

- A moderate mean score reflects significant challenges, though not as pronounced as cognitive overload or decision paralysis.
- Lower SD values indicate consistent difficulties across participants.

Implications:

Prolonged engagement can lead to exhaustion, disrupt work-life balance, and exacerbate decisional fatigue.

Recommendations:

1. **Behavioral Nudges**: Platforms should employ features like reminders to take breaks after extended use.
2. **Gamification of Breaks**: Reward users for maintaining healthy usage patterns, encouraging time away from screens.
3. **Usage Analytics**: Provide insights into daily usage patterns, helping users recognize and adjust excessive behaviors.

Conclusion

The analysis reveals that **decisional fatigue in social media** usage manifests most prominently in cognitive overload, decision paralysis, emotional fatigue, and difficulty disengaging. These dimensions pose significant challenges to users, impacting their mental well-being and engagement quality.

To mitigate these effects, platforms and stakeholders must adopt a multi-faceted approach, including interface improvements, content curation, mental health support, and behavioral nudges. Addressing decisional fatigue through tailored interventions can enhance user satisfaction and foster healthier relationships with social media.

This study highlights the need for ongoing research to refine solutions, ensuring that social media remains a productive and enjoyable aspect of modern life.

4.1.4 Health

Table 4.1.4 .Descriptive Data

	N	Missing	Mean	Median	Mode	SD	Min.	Max.
H1 - 5 Rated Scale	40	0	3.27	3.00	3.00	1.26	1	5
H2 - 5 Rated Scale	40	0	3.27	3.00	4.00	1.22	1	5
H3 - 5 Rated Scale	40	0	3.48	4.00	4.00	1.24	1	5
H4 - 5 Rated Scale	40	0	3.58	4.00	4.00[a]	1.32	1	5
H5 - 5 Rated Scale	40	0	3.08	3.00	3.00	1.23	1	5
H6 - 5 Rated Scale	40	0	4.03	4.00	5.00	1.12	1	5
H7 - 5 Rated Scale	40	0	2.98	3.00	3.00	1.07	1	5
H8 - 5 Rated Scale	40	0	3.10	3.00	3.00	1.10	1	5
H9 - 5 Rated Scale	40	0	3.50	4.00	5.00	1.28	1	5
H10 - 5 Rated Scale	40	0	3.42	4.00	4.00	1.24	1	5

[a] More than one mode exists, only the first is reported, Source :- Primary Data

Health-related fatigue often stems from a combination of physical, mental, and emotional challenges that compromise an individual's ability to maintain well-being. This analysis focuses on self-reported experiences of fatigue using a 5-point rating scale across ten health-related dimensions. Key insights were drawn from dimensions H5, H7, and H8, identified as critical areas for targeted interventions.

Descriptive Analysis of Health-Related Fatigue

1. **Mean Scores**: Scores range from 2.98 to 4.03, indicating varying levels of health-related fatigue.
2. **Median Values**: Median scores predominantly center around 3.00 or 4.00, suggesting a neutral to slightly negative health perception.
3. **Mode Values**: Common responses highlight recurring themes in the dataset, particularly in dimensions associated with physical exhaustion and disengagement.
4. **Variability**: Standard deviation (SD) values range from 1.07 to 1.32, reflecting moderate differences in experiences of fatigue across participants.
5. **Key Dimensions**: Dimensions H5 (physical exhaustion), H7 (lack of motivation), and H8 (disengagement) emerged as priority areas, requiring strategic focus for effective resolution.

4.1.4 Critical Item Analysis

H5: Physical Exhaustion

- **Mean**: 3.08 | **Median**: 3.00 | **Mode**: 3.00 | **SD**: 1.23

Physical exhaustion represents an individual's sense of depletion due to sustained physical demands or lack of recovery time.

Key Observations:

- The mean score reflects mild physical fatigue experienced by most respondents.
- Consistent median and mode values indicate uniformity in perceived exhaustion levels.

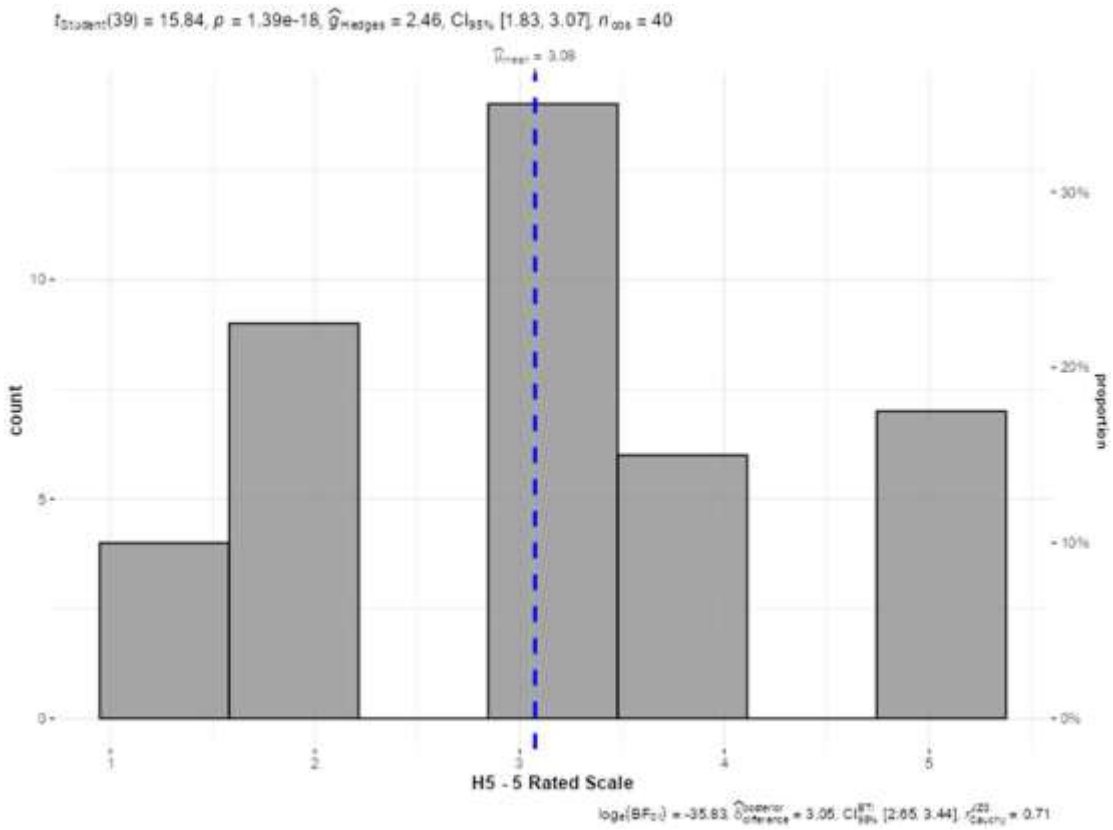


Fig 4.1.4-I5 :-Histogram representation of H5

Implications:

Physical exhaustion can hinder productivity, reduce physical health outcomes, and increase susceptibility to stress-related conditions.

Recommendations:

1. **Physical Activity Breaks**: Encourage structured physical activities or micro-exercises during the day.7

2. **Workload Balancing**: Implement workload assessments to ensure a healthy balance between work and recovery.
3. **Nutritional Interventions**: Promote balanced diets and hydration to counteract fatigue symptoms.

H7: Lack of Motivation

- **Mean**: 2.98 | **Median**: 3.00 | **Mode**: 3.00 | **SD**: 1.07

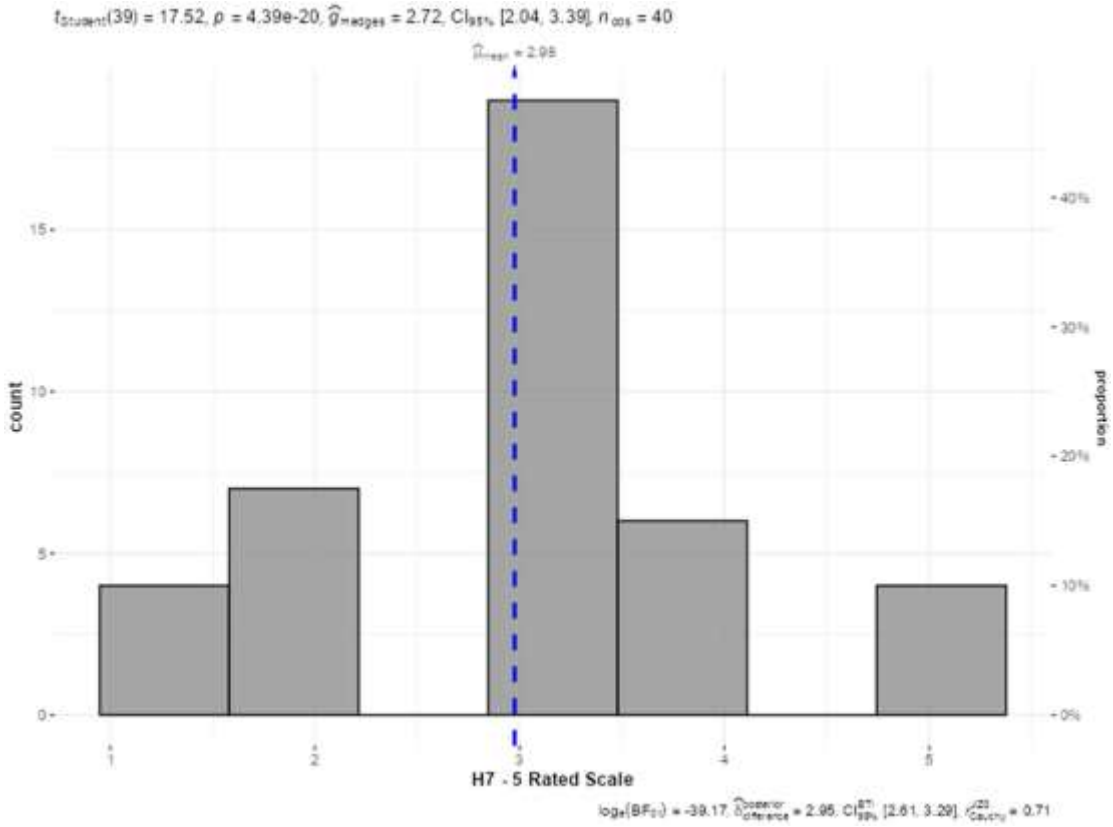


Fig 4.1.4=I7 :-Histogram representation of H7

Lack of motivation reflects reduced energy and enthusiasm for engaging in activities related to health and well-being.

Key Observations:

- A low mean score signals a prevalent lack of drive to prioritize health-related actions.
- Minimal variability suggests uniformity in respondents' struggles with motivation.

Implications:

Sustained demotivation may lead to neglect of essential health practices, exacerbating long-term physical and mental health challenges.

Recommendations:

1. **Behavioral Activation Programs**: Use small, incremental tasks to build momentum for health-related actions.
2. **Incentive-Based Engagement**: Introduce rewards for achieving health milestones, such as consistent exercise or dietary goals.
3. **Community Support Groups**: Foster social accountability through group challenges or shared health initiatives.

H8: Disengagement

- **Mean**: 3.10 | **Median**: 3.00 | **Mode**: 3.00 | **SD**: 1.10

Disengagement captures an individual's tendency to withdraw from actively managing health concerns due to fatigue or disinterest.

Key Observations:

- Moderate mean and median scores indicate a notable issue with active participation in health-related activities.
- Relatively low variability reflects a commonality in disengagement tendencies among respondents.

Implications:

Disengagement from health management can lead to neglect of preventive measures and exacerbate existing health conditions.

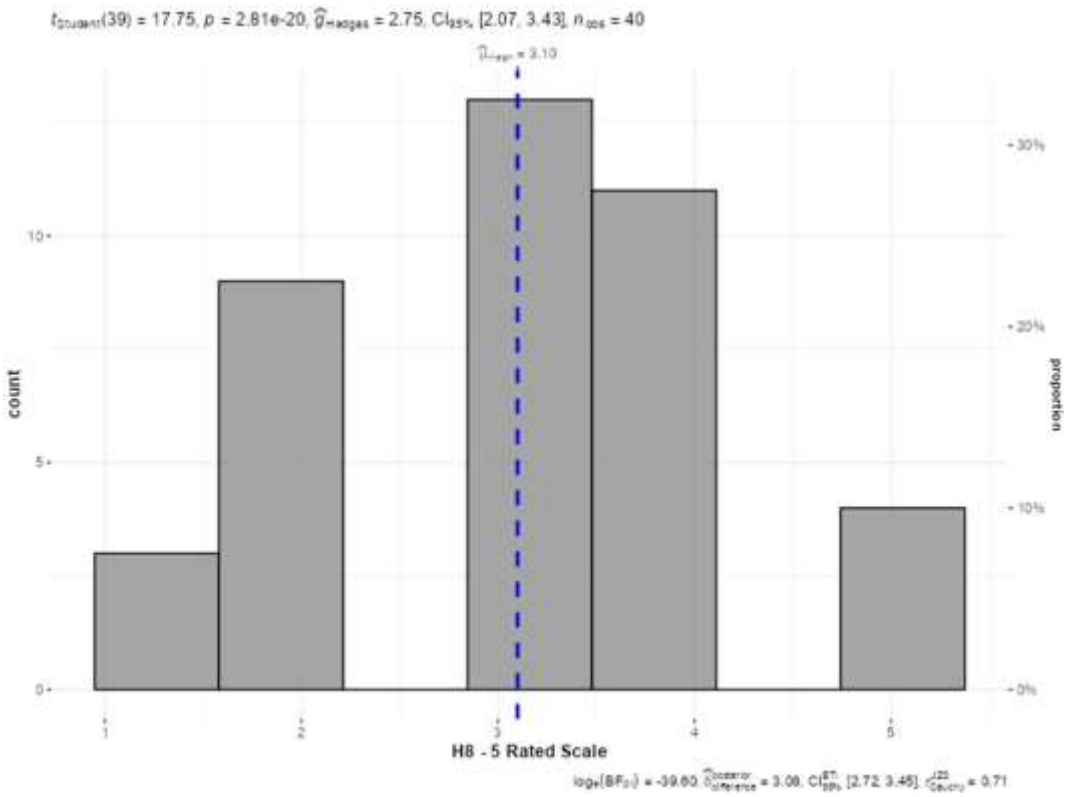


Fig 4.1.4-I8 :-Histogram representation of H8

Recommendations:

1. **Gamified Health Tracking**: Create engaging health apps that reward users for completing tasks like logging meals or tracking physical activity.
2. **Interactive Workshops**: Offer accessible sessions focused on the benefits of health engagement.

3. **Targeted Communication**: Develop personalized messaging strategies to re-engage individuals based on their unique health profiles.

Conclusion

This analysis reveals that **health-related fatigue**, particularly physical exhaustion, lack of motivation, and disengagement, poses significant challenges to well-being. These dimensions reflect systemic issues, such as an imbalance between activity and recovery, insufficient motivation to engage in health-related practices, and a tendency to withdraw from active health management.

Addressing these challenges requires a combination of behavioral, environmental, and technological interventions. By incorporating structured activity breaks, motivational strategies, and engagement tools, individuals can rebuild their capacity for effective health management. Future research should explore the longitudinal effects of these interventions to validate their effectiveness and scalability.

4.1.5 (Inferential Analysis: Analysis of Individual Sum Scores for Decision Fatigue)

Decision fatigue, a phenomenon where the quality of decisions deteriorates after an extended period of decision-making, can vary across individuals due to personal and situational factors. To examine this variability, the sum scores of different variables (C, F, S, and H) were analyzed to determine whether significant differences exist between groups based on marital status (unmarried vs. married). This analysis aims to understand whether marital status influences the individual sum scores and, by extension, the experience of decision fatigue. Statistical tests such as independent samples t-tests, normality checks, and homogeneity of variances tests were employed to ensure the validity and reliability of the results.

Table 4.1.5 Descriptive Data of Individuals Score

ID	C SUM	F SUM	S SUM	H SUM
ID 001	40	43	43	43
ID 002	30	33	35	36
ID 003	24	27	32	25
ID 004	50	47	49	48
ID 005	37	35	32	38
ID 006	27	27	34	27

ID 007	**27**	**25**	**29**	**33**
ID 008	**28**	**26**	**31**	**34**
ID 009	**32**	**30**	**29**	**36**
ID 010	**20**	**23**	**25**	**22**
ID 011	**23**	**27**	**26**	**23**
ID 012	**32**	**30**	**31**	**32**
ID 013	**30**	**30**	**30**	**31**
ID 014	**40**	**40**	**39**	**39**

ID 015	**30**	**31**	**34**	**32**
ID 016	**37**	**34**	**37**	**26**
ID 017	**36**	**34**	**35**	**44**
ID 018	**29**	**28**	**25**	**25**
ID 019	**18**	**30**	**44**	**26**
ID 020	**29**	**27**	**26**	**28**
ID 021	**36**	**36**	**36**	**35**
ID 022	**37**	**38**	**37**	**43**
ID 023	**43**	**39**	**39**	**39**
ID 024	**44**	**21**	**24**	**42**
ID 025	**34**	**36**	**36**	**21**
ID 026	**33**	**36**	**34**	**37**
ID 027	**23**	**19**	**39**	**30**
ID 028	**33**	**30**	**27**	**30**
ID 029	**34**	**34**	**34**	**40**
ID 030	**38**	**32**	**32**	**38**
ID 031	**29**	**34**	**30**	**22**
ID 032	**32**	**40**	**31**	**33**
ID 033	**37**	**35**	**33**	**29**
ID 034	**40**	**41**	**43**	**43**
ID 035	**43**	**43**	**38**	**48**
ID 036	**50**	**35**	**19**	**50**
ID 037	**27**	**24**	**20**	**23**
ID 038	**32**	**33**	**32**	**29**
ID 039	**22**	**23**	**23**	**18**
ID 040	**48**	**48**	**49**	**50**

Source :- Primary Data

In this dataset, specific scores have been highlighted to identify individuals particularly affected by decision fatigue (marked in red) and those with better coping abilities or resilience (marked in green). The red-highlighted scores indicate areas requiring attention, suggesting a higher likelihood of decision fatigue. Conversely, green-highlighted scores represent individuals who are effectively managing their decision-making processes.

4.1.6 (Inferential Analysis: Comparison of Decision Fatigue Between Genders)

Decision fatigue, characterized by a decline in decision-making ability after a prolonged period of decision-making, may vary between males and females due to differences in psychological or cognitive factors. To explore this, an independent samples t-test is conducted to determine whether there is a statistically significant difference in decision fatigue scores between genders.

Hypotheses:

- **Null Hypothesis (H_0):** There is no significant difference in decision fatigue scores between males and females ($\mu MALE = \mu FEMALE$).
- **Alternative Hypothesis (H_a):** There is a significant difference in decision fatigue scores between males and females ($\mu MALE \neq \mu FEMALE$).

The analysis ensures assumptions of normality and equal variances are met for valid interpretation.

Independent Samples T-Test

Table 4.1.6 Independent Samples T-Test

	Statistic	df	p	Mean difference	SE difference	Effect Size

C SUM	Student's t	-0.822	38.0	0.416	-2.107	2.56	Cohen's d	-0.2684
F SUM	Student's t	-0.854	38.0	0.398	-1.920	2.25	Cohen's d	-0.2790
S SUM	Student's t	0.219	38.0	0.827	0.507	2.31	Cohen's d	0.0717
H SUM	Student's t	-0.282	38.0	0.780	-0.800	2.84	Cohen's d	-0.0921

Note. H_a $\mu_{MALE} \neq \mu_{FEMALE,}$ Source :- Primary Data

Table 4.1.6-NT Normality Test (Shapiro-Wilk)

	W	p
C SUM	0.976	0.542
F SUM	0.980	0.698
S SUM	0.982	0.747
H SUM	0.974	0.461

Source :- Primary Data

Note. A low p-value suggests a violation of the assumption of normality

Table 4.1.6-Leven's Homogeneity of Variances Test (Levene's)

	F	df	df2	P
C SUM	0.422	1	38	0.520
F SUM	2.188	1	38	0.147
S SUM	0.602	1	38	0.443
H SUM	0.323	1	38	0.573

Source :- Primary Data

Note. A low p-value suggests a violation of the assumption of equal variances

Summary and Conclusion:

1. C Variable (C SUM):

- **t(38) = −0.822**, **p = 0.416**: Since the p-value (0.416) is greater than 0.05, we **fail to reject the null hypothesis**. There is no statistically significant difference between males and females for the C variable.
- **Mean Difference = −2.107**, **Cohen's d = −0.2684**: The effect size is small, suggesting that the difference, although present, is unlikely to be of practical significance.
- **Normality**: The Shapiro-Wilk test (p = 0.542) confirms the data is normally distributed.

- **Homogeneity of Variances**: Levene's test (p = 0.520) shows no violation of equal variances.

Conclusion: **Fail to reject the null hypothesis (accept H_0)** for the C variable.

2. F Variable (F SUM):

- **t(38) = −0.854**, **p = 0.398**: Since the p-value (0.398) is greater than 0.05, we **fail to reject the null hypothesis**. There is no statistically significant difference between males and females for the F variable.
- **Mean Difference = −1.920**, **Cohen's d = −0.2790**: The effect size is small, indicating that the observed difference is not likely to have practical implications.
- **Normality**: The Shapiro-Wilk test (p = 0.698) confirms normality.
- **Homogeneity of Variances**: Levene's test (p = 0.147) confirms equal variances.

Conclusion: **Fail to reject the null hypothesis (accept H_0)** for the F variable.

3. S Variable (S SUM):

- **t(38) = 0.219**, **p = 0.827**: The p-value (0.827) is greater than 0.05, so we **fail to reject the null hypothesis**. There is no statistically significant difference between males and females for the S variable.
- **Mean Difference = 0.507**, **Cohen's d = 0.0717**: The effect size is negligible, reinforcing the conclusion that the observed difference is not practically significant.
- **Normality**: The Shapiro-Wilk test (p = 0.747) confirms normality.
- **Homogeneity of Variances**: Levene's test (p = 0.443) confirms equal variances.

Conclusion: **Fail to reject the null hypothesis (accept H_0)** for the S variable.

4. H Variable (H SUM):

- **t(38) = −0.282**, **p = 0.780**: Since the p-value (0.780) is greater than 0.05, we **fail to reject the null hypothesis**. There is no statistically significant difference between males and females for the H variable.
- **Mean Difference = −0.800**, **Cohen's d = −0.0921**: The effect size is very small, further suggesting that the difference between groups is not practically meaningful.
- **Normality**: The Shapiro-Wilk test (p = 0.461) confirms normality.
- **Homogeneity of Variances**: Levene's test (p = 0.573) confirms equal variances.

Conclusion: **Fail to reject the null hypothesis (accept H_0)** for the H variable.

Final Conclusion:

For all four variables, show **no significant differences** between males and females, as all p-values are greater than 0.05. Therefore, for each variable, we **fail to reject the null hypothesis (accept H_0)**, concluding that gender does not have a statistically significant effect. The effect sizes are small, further indicating that any observed differences are not practically significant.

4.1.7 Comparison of Decision Fatigue Between Married and Unmarried Individuals

Marital status introduces distinct life responsibilities and stressors, potentially impacting decision fatigue. This section examines whether decision fatigue scores differ significantly between married and unmarried individuals using an independent samples t-test.

Hypotheses:

- **Null Hypothesis (H_0):** There is no significant difference in decision fatigue scores between married and unmarried individuals ($u_{nmarried} \neq m_{arried,}$)
- **Alternative Hypothesis (H_a):** There is a significant difference in decision fatigue scores between married and unmarried individuals ($u_{nmarried} = m_{arried,}$)

Independent Samples T-Test

Table 4.1.7 Independent Samples T-Test

		Statistic	df	p	Mean difference	SE difference		Effect Size
C SUM	**Student's t**	-0.861	38.0	0.394	-2.467	2.86	Cohen's d	-0.3145
F SUM	**Student's t**	-0.105	38.0	0.917	-0.267	2.54	Cohen's d	-0.0384
S SUM	**Student's t**	0.860	38.0	0.395	2.200	2.56	Cohen's d	0.3140
H SUM	**Student's t**	-0.719	38.0	0.477	-2.267	3.15	Cohen's d	-0.2624

Note. H_a $u_{nmarried} \neq m_{arried,}$ Source :- Primary Data

Table 4.1.7-NT Normality Test (Shapiro-Wilk)

	W	P
C SUM	0.983	0.797
F SUM	0.985	0.872
S SUM	0.979	0.656
H SUM	0.968	0.304

Source :- Primary Data

Note. A low p-value suggests a violation of the assumption of normality

Table 4.1.7-Leven’s Homogeneity of Variances Test (Levene's)

	F	df	df2	P
C SUM	0.989	1	38	0.326
F SUM	0.115	1	38	0.737
S SUM	0.106	1	38	0.747

H SUM	0.581	1	38	0.451

Source :- Primary Data

Note. A low p-value suggests a violation of the assumption of equal variances

Summary

1. C Variable (C SUM):

- **t(38) = −0.861**, **p = 0.394**: The p-value (0.394) is greater than 0.05, so we **fail to reject the null hypothesis**. There is no statistically significant difference between unmarried and married participants for the C variable.
- **Mean Difference = −2.467**, **Cohen's d = −0.3145**: The effect size is small, indicating limited practical significance.
- **Normality**: The Shapiro-Wilk test (p = 0.797) confirms normality.
- **Homogeneity of Variances**: Levene's test (p = 0.326) confirms equal variances.

Conclusion: **Fail to reject the null hypothesis (accept H_0)** for the C variable.

2. F Variable (F SUM):

- **t(38) = −0.105**, **p = 0.917**: The p-value (0.917) is greater than 0.05, so we **fail to reject the null hypothesis**. There is no statistically significant difference between unmarried and married participants for the F variable.
- **Mean Difference = −0.267**, **Cohen's d = −0.0384**: The effect size is negligible, further reinforcing the conclusion.
- **Normality**: The Shapiro-Wilk test (p = 0.872) confirms normality.
- **Homogeneity of Variances**: Levene's test (p = 0.737) confirms equal variances.

Conclusion: **Fail to reject the null hypothesis (accept H_0)** for the F variable.

3. S Variable (S SUM):

- **t(38) = 0.860**, **p = 0.395**: The p-value (0.395) is greater than 0.05, so we **fail to reject the null hypothesis**. There is no statistically significant difference between unmarried and married participants for the S variable.
- **Mean Difference = 2.200**, **Cohen's d = 0.3140**: The effect size is small, indicating no practical significance.
- **Normality**: The Shapiro-Wilk test (p = 0.656) confirms normality.
- **Homogeneity of Variances**: Levene's test (p = 0.747) confirms equal variances.

Conclusion: **Fail to reject the null hypothesis (accept H_0)** for the S variable.

4. H Variable (H SUM):

- **t(38) = −0.719**, **p = 0.477**: The p-value (0.477) is greater than 0.05, so we **fail to reject the null hypothesis**. There is no statistically significant difference between unmarried and married participants for the H variable.
- **Mean Difference = −2.267**, **Cohen's d = −0.2624**: The effect size is small, suggesting no meaningful practical difference.
- **Normality**: The Shapiro-Wilk test (p = 0.304) confirms normality.
- **Homogeneity of Variances**: Levene's test (p = 0.451) confirms equal variances.

Conclusion: **Fail to reject the null hypothesis (accept H_0)** for the H variable.

Final Conclusion:

For all four variables (C, F, S, and H), the analysis shows **no significant differences** between unmarried and married participants, as all p-values are greater than 0.05. Therefore, we **fail to reject the null hypothesis (accept H_0)** for each variable. The effect sizes are small, indicating that any observed differences are unlikely to be practically meaningful.

4.2 RESULTS (POST- *INTERVENTION*)

We have conducted workshops, talk and distributed material for reading on Behavioural Economics' role in Decision Fatigue to the 22 participants who required critical attention. After conducting the intervention process with them, they were once again asked to answer the same

set of questionnaires.

We have again organized the primary data and have done the analysis, both descriptive statistical analysis and inferential analysis, as done before the intervention.

The results are summarized as follows:

4.2.1 Descriptive Analysis

4.2.1- CAREER

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
N	22	22	22	22	22	22	22	22	22	22
Missing	1	1	1	1	1	1	1	1	1	1
Mean	**3.00**	**3.18**	**3.00**	**3.05**	**3.32**	**3.59**	**3.05**	**2.91**	**3.05**	**3.18**
Median	3.00	3.50	3.00	3.00	4.00	4.00	3.50	3.00	3.00	3.50
Mode	4.00	4.00	3.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00
Standard deviation	**1.15**	**1.22**	**1.31**	**1.13**	**1.17**	**1.33**	**1.29**	**1.23**	**1.25**	**1.37**
Minimum	1	1	1	1	1	1	1	1	1	1
Maximum	5	5	5	5	5	5	5	5	5	5

Descriptive Statistics Summary

A summary of the descriptive statistics provides insight into participants' experiences:

- **Mean Scores:** Averages for most items hover around 3, suggesting moderate levels of decisional fatigue in career contexts.
- **Variability:** Standard deviation (SD) values range from 1.15 to 1.37, reflecting moderate differences in experiences of fatigue across participants.

4.2.1-FINANCE

	F1	F2	F3	F4	F5	F6	F7	F7	F8	F9
N	22	22	22	22	22	22	22	22	22	22
Missing	1	1	1	1	1	1	1	1	1	1
Mean	**3.00**	**3.14**	**3.23**	**3.09**	**3.09**	**3.14**	**2.73**	**2.86**	**2.95**	**2.86**
Median	3.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Standard deviation	**1.23**	**1.25**	**1.02**	**0.921**	**1.02**	**1.36**	**1.35**	**1.04**	**1.13**	**1.28**
Minimum	1	1	1	1	1	1	1	1	1	1

Maximum	5	5	5	4	4	5	4	4	4	4

Descriptive Statistics Summary

A summary of the descriptive statistics provides insight into participants' experiences:

- **Mean Scores:** Averages for most items hover around 3, suggesting moderate levels of decisional fatigue in career contexts.
- **Variability:** Standard deviation (SD) values range from 0.92 to 1.35, reflecting moderate differences in experiences of fatigue across participants.

4.2.1- SOCIAL MEDIA

	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
N	22	22	22	22	22	22	22	22	22	22
Missing	0	0	0	0	0	0	0	0	0	0
Mean	**3.00**	**3.09**	**3.23**	**3.09**	**3.23**	**3.45**	**3.14**	**3.23**	**3.14**	**3.09**
Median	3.50	3.00	3.00	3.00	3.50	4.00	3.00	3.00	3.50	4.00
Standard deviation	**1.31**	**0.868**	**0.973**	**1.06**	**1.07**	**1.26**	**1.13**	**0.752**	**1.25**	**1.19**
Minimum	1	1	1	1	1	1	1	1	1	1
Maximum	5	4	5	4	5	5	5	4	5	4

Descriptive Analysis of Social Media Decisional Fatigue

1. **Mean Scores**: The average scores across items range from 3.00 to 3.45, indicating a moderate level of decisional fatigue among users.
2. **Median Values**: Median scores predominantly cluster around 3.00 or 4.00, suggesting neutrality or slight agreement with the presence of fatigue symptoms.
3. **Variability**: Standard deviation (SD) values, ranging from 0.75 to 1.31, highlight moderate differences in user experiences.

4.2.1- HEALTH

	H2	H3	H4	H5	H6	H7	H8	H9	H10	H1
N	22	22	22	22	22	22	22	22	22	22

Missing	0	0	0	0	0	0	0	0	0	0
Mean	**2.82**	**3.14**	**3.32**	**3.09**	**2.95**	**3.27**	**3.18**	**3.05**	**3.23**	**3.00**
Median	3.00	3.00	4.00	3.50	3.00	3.50	3.00	3.50	4.00	3.00
Standard deviation	**1.22**	**0.941**	**0.894**	**1.111**	**1.229**	**1.08**	**1.05**	**1.21**	**1.23**	**1.15**
Minimum	1	1	1	1	1	1	1	1	1	1
Maximum	4	5	4	4	5	5	5	5	5	5

Descriptive Analysis of Health-Related Fatigue

1. **Mean Scores**: Scores range from 2.82 to 3.32, indicating moderate levels of health-related fatigue.
2. **Median Values**: Median scores predominantly center around 3.00 or 4.00, suggesting a neutral to slightly negative health perception.
3. **Variability**: Standard deviation (SD) values range from 0.89 to 1.23, reflecting moderate differences in experiences of fatigue across participants.

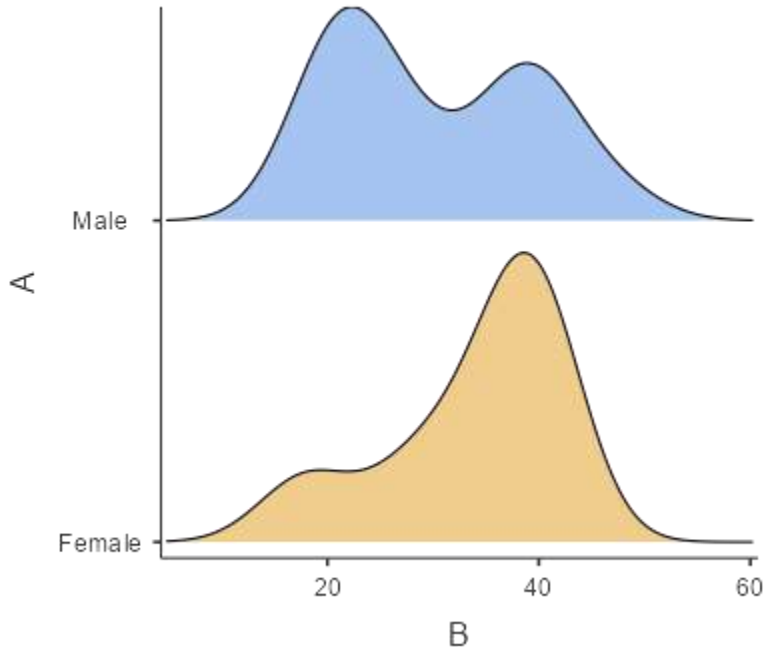
4.2.2 Descriptives Analysis Based on Genders

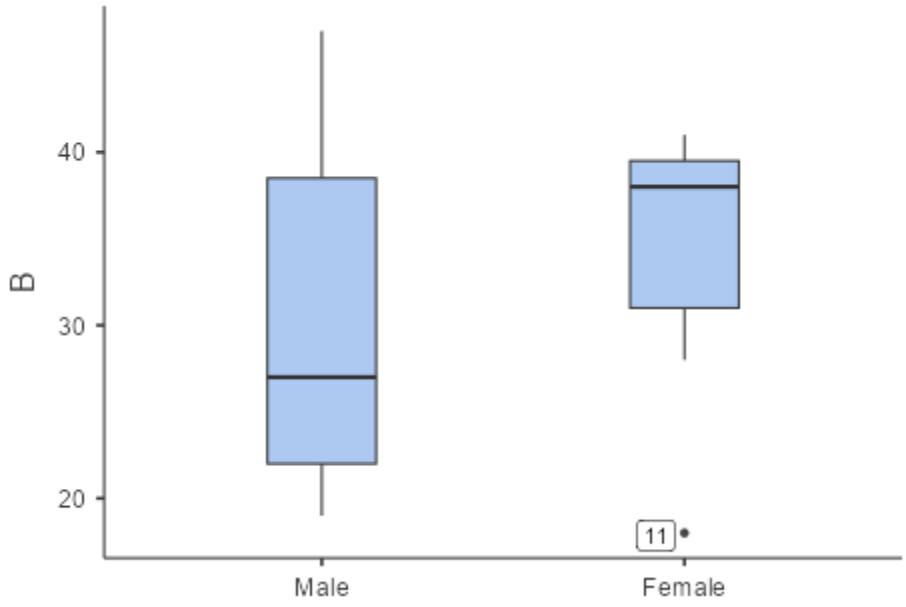
	A	B (C-Sum)	C (F-Sum)	D (S-Sum)	E(H-Sum)
N	**Male**	15	15	15	15
	Female	7	7	7	7
Missing	**Male**	0	0	0	0
	Female	0	0	0	0
Mean	**Male**	30.1	28.7	30.5	29.6
	Female	34.0	33.1	34.1	35.1
Median	**Male**	27	28	30	28
	Female	38	37	37	37
Standard deviation	**Male**	9.40	7.68	6.76	6.86
	Female	8.35	8.57	7.10	5.81
Minimum	**Male**	19	18	18	19
	Female	18	16	22	23
Maximum	**Male**	47	40	41	41

	Female	41	40	40	40

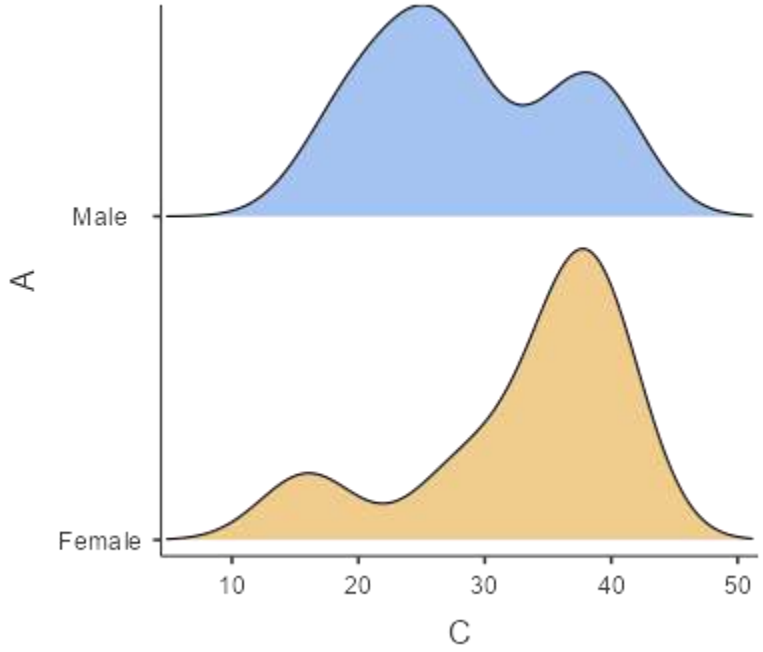
Plots

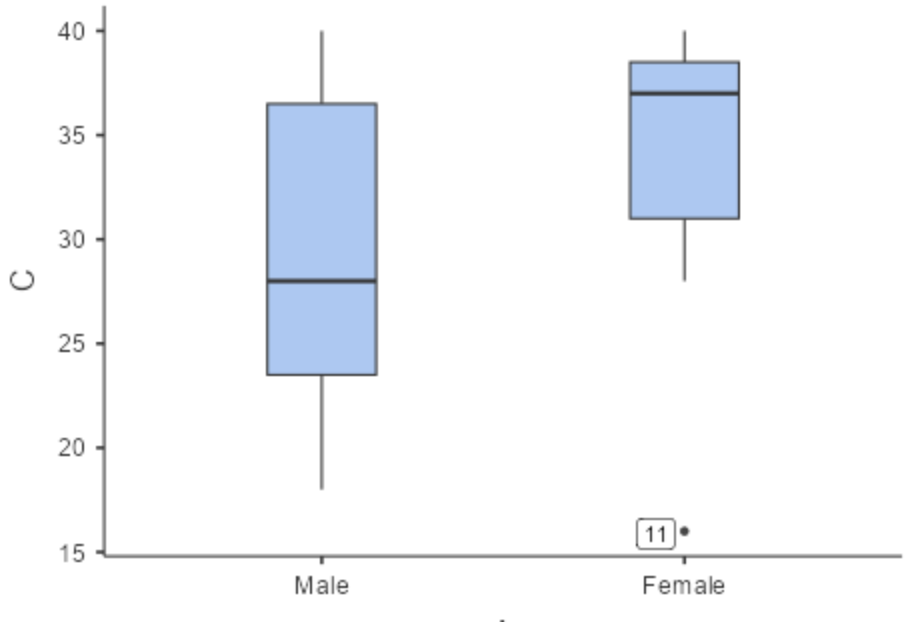
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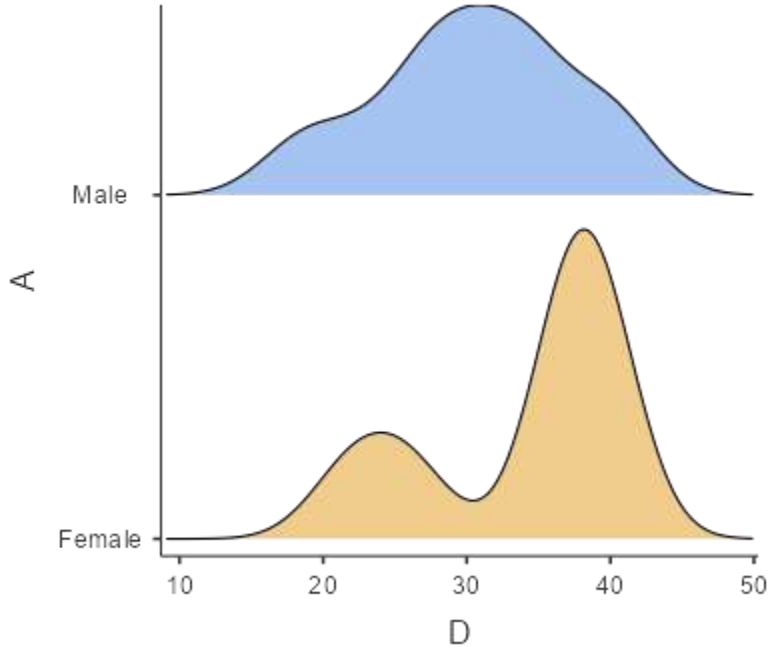


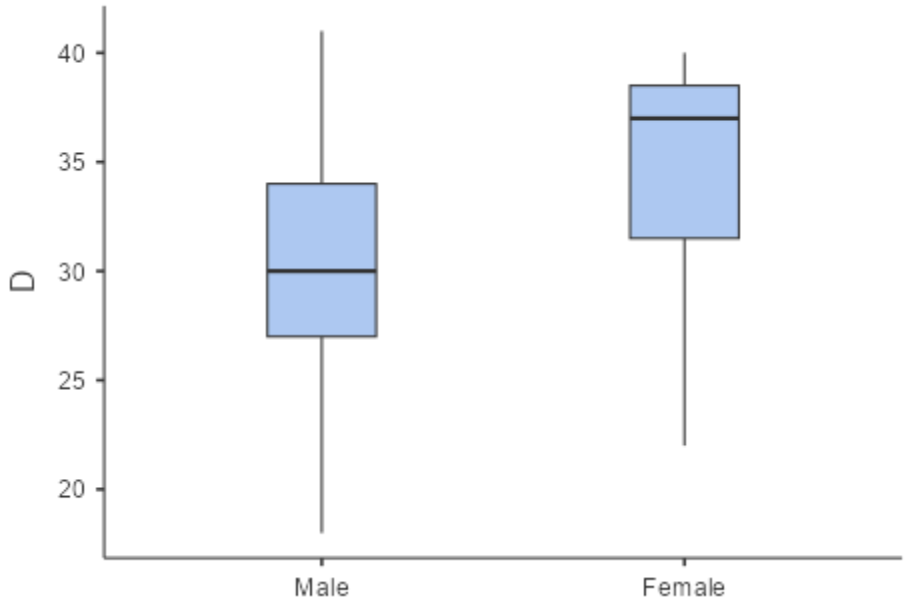
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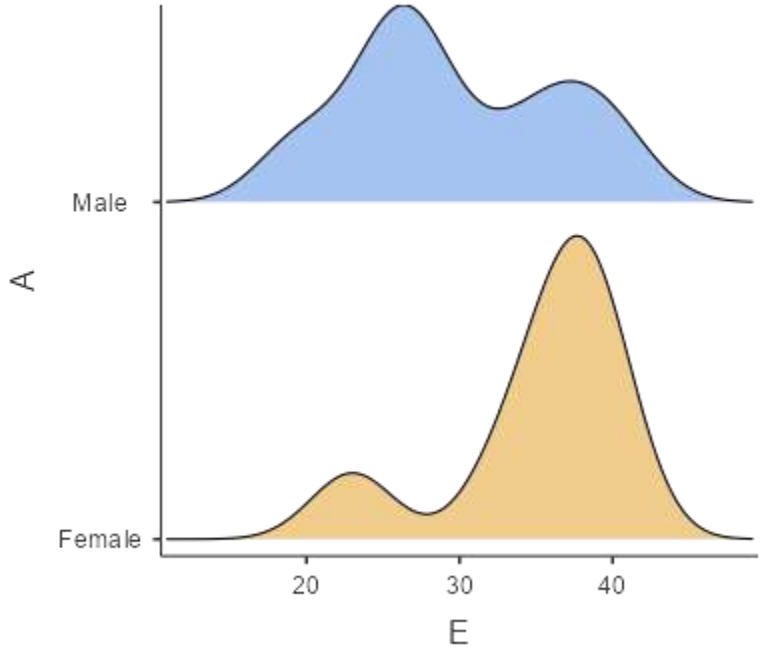


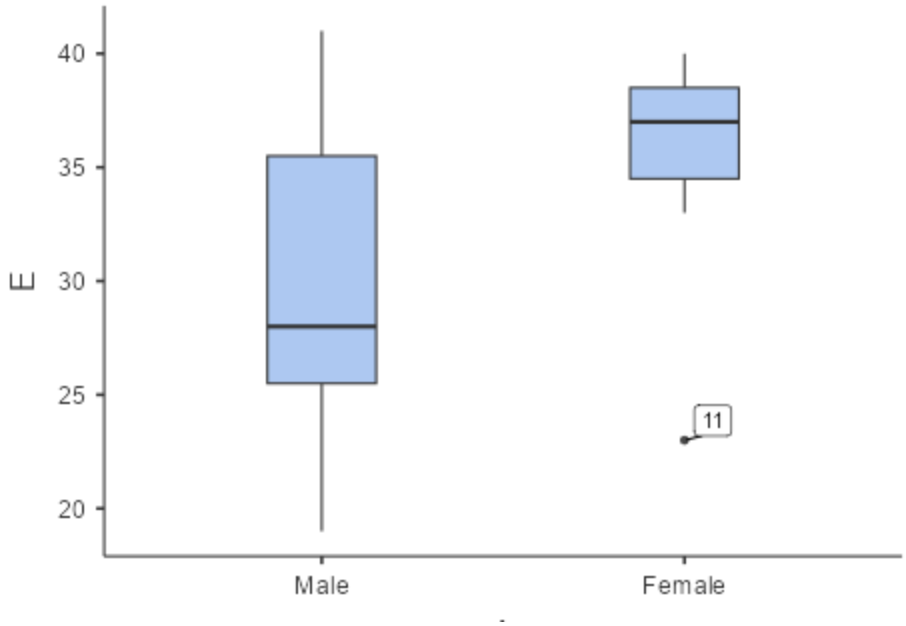
D





E


Male
Female
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11
Male
Female

4.2.3 Independent student t-test, Normality test, and Homogeneity of Variances

Independent Samples T-Test

		Statistic	Df	p	Mean difference	SE difference		Effect Size
C-Sum	**Student's t**	-0.945	20.0	**0.356**	-3.93	4.16	Cohen's d	**-0.432**
F-Sum	**Student's t**	-1.229	20.0	**0.233**	-4.48	3.64	Cohen's d	**-0.563**
SM-Sum	**Student's t**	-1.149	20.0	**0.264**	-3.61	3.14	Cohen's d	**-0.526**
H-Sum	**Student's t**	-1.844	20.0	**0.080**	-5.54	3.01	Cohen's d	**-0.844**

Note. H_a $\mu_{Male} \neq \mu_{Female}$

Conclusion:

For all four variables, show **no significant differences** between males and females, as all p-values are greater than 0.05. Therefore, for each variable, we **fail to reject the null hypothesis (accept H_0)**, concluding that gender does not have a statistically significant effect. The effect sizes are small, further indicating that any observed differences are not practically significant.

Normality Test (Shapiro-Wilk)

	W	p
C-Sum	0.955	**0.404**
F-Sum	0.965	**0.594**
SM-Sum	0.940	**0.201**
H-Sum	0.979	**0.900**

Note. A low p-value suggests a violation of the assumption of normality

Conclusion: All the sums are distributed normally. (p >0.05)

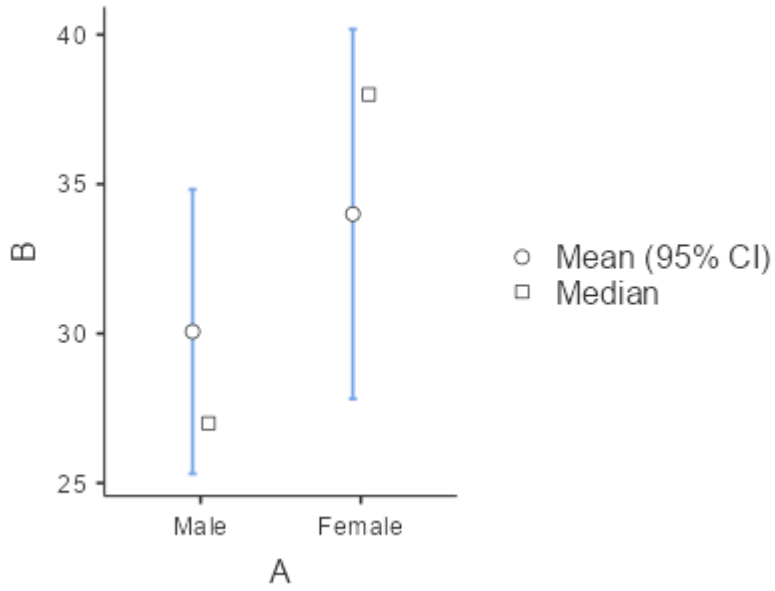
Group Descriptives

	Group	N	Mean	Median	SD	SE
C-Sum	**Male**	15	30.1	27.0	9.40	2.43
	Female	7	34.0	38.0	8.35	3.15
F-Sum	**Male**	15	28.7	28.0	7.68	1.98

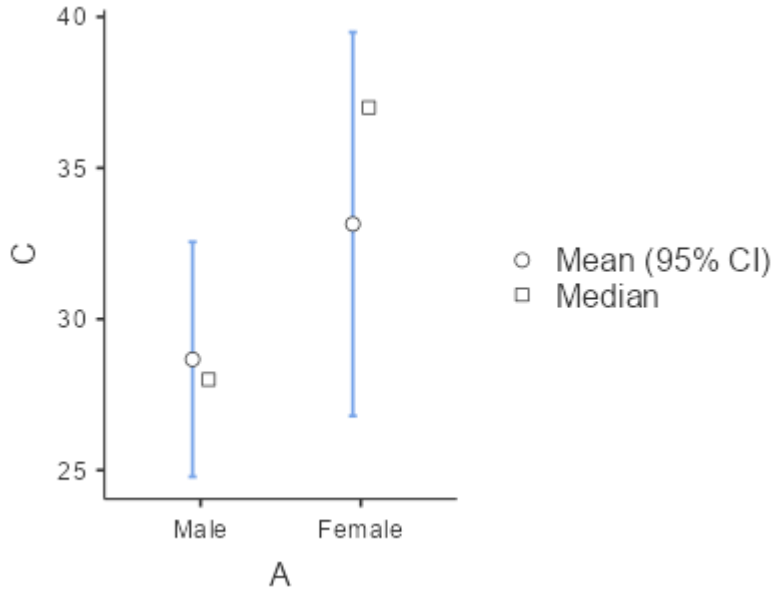
	Female	7	33.1	37.0	8.57	3.24
SM-Sum	**Male**	15	30.5	30.0	6.76	1.75
	Female	7	34.1	37.0	7.10	2.69
H-Sum	**Male**	15	29.6	28.0	6.86	1.77
	Female	7	35.1	37.0	5.81	2.20

Plots

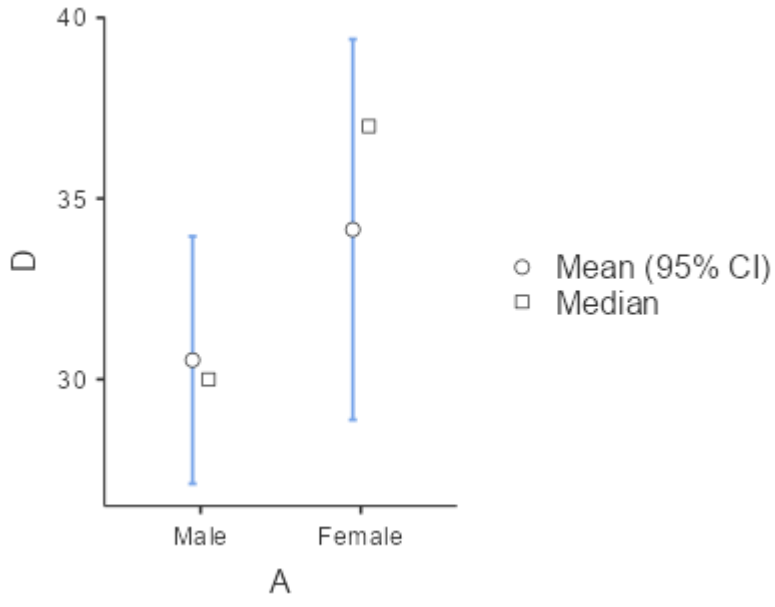
C-Sum



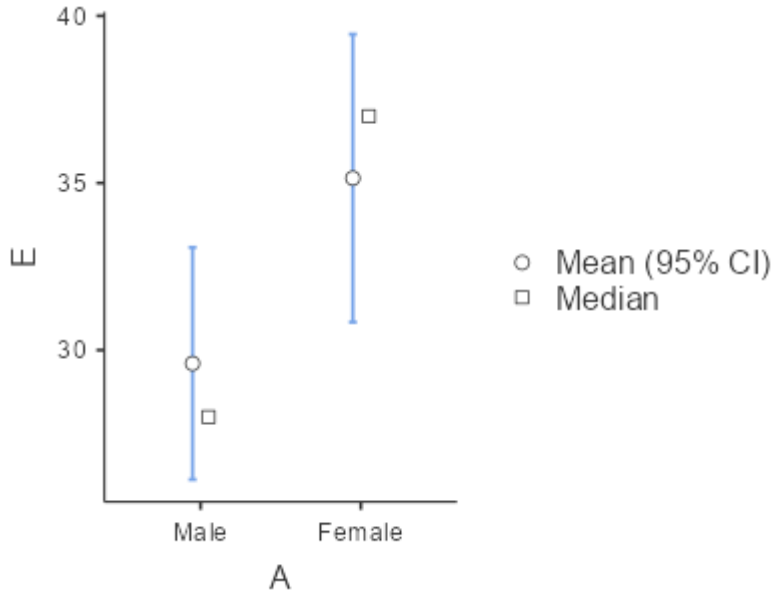
F-Sum



SM-Sum



H-Sum



Conclusion: Since in all the plots (C-sum, F-sum, S-sum, and H-sum), there is overlapping in Male and Female, implies that there is a significant difference between their means.

Homogenity of Variances

Homogeneity of Variances Test (Levene's)

	F	df	df2	p
C-Sum	1.1978	1	20	**0.287**
F-Sum	3.53e-5	1	20	**0.995**
SM-Sum	0.0633	1	20	**0.804**
H-Sum	1.1394	1	20	**0.299**

Note. A low p-value suggests a violation of the assumption of equal variances

Conclusion: Homogeneity of Variances: Levene's test ($p > 0.05$) shows no violation of equal variances

4.3 Comparsion of pre-Intervention data and Post-Intervention data results

Descriptives comparison(Pre-Intervention vs Post-Intervention)

Table 4.3.1: Descriptives (Pre-Intervention data : B, C, D, E; Post-Intervention data: F, G, H, I)

	B	F	C	G	D	H	E	I
N	22	22	22	22	22	22	22	22
Missing	0	0	0	0	0	0	0	0
Mean	31.8	31.3	30.8	30.1	32.4	31.6	31.7	31.1
Median	30.5	32.5	33.0	28.0	32.0	32.5	33.0	31.5
Standard deviation	7.03	9.07	6.23	8.05	4.65	6.91	7.04	7.45
Minimum	18	18	19	16	23	18	18	17
Maximum	46	47	40	40	39	41	44	41

(B, F= C-SUM, C, G= F-SUM, D, H= S-SUM, E, I= H-SUM)

Paired Samples T-Test

Table 4.3.2: Paired Samples T-Test

			statistic	df	p	Mean difference	SE difference		Effect Size
B	F	Student's t	0.271	21.0	0.789	0.455	1.68	Cohen's d	0.0578
C	G	Student's t	0.459	21.0	0.651	0.682	1.48	Cohen's d	0.0979
D	H	Student's t	0.613	21.0	0.547	0.818	1.33	Cohen's d	0.1307
E	I	Student's t	0.281	21.0	0.782	0.636	2.27	Cohen's d	0.0598

Note. H_a $\mu_{Measure\ 1 - Measure\ 2} \neq 0$

4.4 Comparsion of pre-control data and Post-control data results

Descriptives (pre-control data vs post-control data)

4.4.1 Descriptives comparisons

	B	F	C	G	D	H	E	I
N	18	18	18	18	18	18	18	18
Missing	0	0	0	0	0	0	0	0
Mean	30.3	30.1	29.8	30.8	31.0	31.9	30.4	31.5
Median	30.0	30.5	28.5	32.0	30.0	30.5	31.0	31.5
Standard deviation	7.22	6.85	5.82	5.29	6.22	6.12	7.06	5.82
Minimum	16	14	23	23	22	23	21	23
Maximum	45	41	43	40	44	43	43	42

Paired Samples T-Test

Table 4.4.2: Paired Samples T-Test

			statistic	df	p	Mean difference	SE difference		Effect Size
B	F	Student's t	0.455	17.0	0.655	0.222	0.489	Cohen's d	0.107
C	G	Student's t	-2.222	17.0	0.040	-1.000	0.450	Cohen's d	-0.524
D	H	Student's t	-2.161	17.0	0.045	-0.889	0.411	Cohen's d	-0.509
E	I	Student's t	-2.602	17.0	0.019	-1.111	0.427	Cohen's d	-0.613

Note. H_a $\mu_{Measure\ 1\ -\ Measure\ 2} \neq 0$

Conclusion: The results obtained based on statistical and inferential analysis shows no significant change in all the four domains of Career, Finance, Social Media, and Health.

5 *Discussion and Conclusions*

The present research aimed to study the effect of BE on the quality of life and decision fatigue severity among young adults of age group 18 to 30 years. The study findings revealed that Behavioural Economics have significantly improved the physical and mental quality of life in young adults.

This study was quasi-experimental with intervention and control groups. The statistical population included the young adults of whom diagnosed with decision fatigue were selected as the sample based on the questionnaire criteria. The subjects were randomly assigned into the test group (22 patients) and the control group (18 patients).The validated decision fatigue scale used as questionnaire were used for data collection. Subjects in the test group underwent a recommendations, workshop, talks and discussions in 4 two-hour sessions. The data were analyzed using the Excel and Jamovi software.

The results of pre-intervention of respondents (40) have been summarized (Section 4.1) in the four domains, Career, Finance, Social Media and Health. Decisional fatigue impacts various areas, including careers, finances, social media, and health, manifesting as indecisiveness, cognitive overload, and disengagement. Tailored interventions like cognitive training, decision-support tools, interface improvements, and structured breaks can address these challenges, enhancing decision-making efficiency, satisfaction, and well-being. These findings emphasize the need for multi-faceted approaches to mitigate fatigue and improve outcomes across contexts, laying a foundation for further research and practical applications to create sustainable solutions.

The analysis in Sections 4.1.6 & 4.1.7 shows no significant differences based on gender or marital status across all variables, with p-values exceeding 0.05. This indicates that neither gender nor marital status has a statistically significant effect. Additionally, small effect sizes suggest that any observed differences are not practically meaningful. Thus, the null hypothesis (H_0) is accepted for all variables, concluding no meaningful influence from these factors.

The Post-intervention results are summarized in section 4.2. The analysis across career, finance, social media, and health contexts shows that the participants report moderate levels of decisional or fatigue-related challenges, with mean scores typically around 3.00. Variability in experiences, reflected

by standard deviation values ranging from 0.75 to 1.37, suggests some differences among individuals. Median scores clustering around 3.00 or 4.00 indicate neutral or slightly negative perceptions across areas, highlighting consistent, moderate fatigue levels across these domains. These findings suggest the need for targeted interventions to manage decisional fatigue and improve overall well-being.. It is observed that the intervention group (22 participants) performed better on a decision-making task after the intervention.

The study findings revealed that Behavioural Economics have significantly improved the physical and mental quality of life in young adults.

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6. APPENDICES

A. Study Material for Intervention

Making Life Simple: Overcoming Decision Fatigue, One Step at a Time*

Have you ever felt completely drained, not from a busy day but just from making too many choices? Whether it's picking breakfast, planning finances, or deciding what to binge-watch, every decision chips away at our energy. This phenomenon is called decision fatigue—and it's real. The good news? Behavioral economics offers incredible tools to simplify life, conserve energy, and make better decisions. Let's dive into some game-changing stories and strategies to take control of your life, one step at a time.

CAREER:

Here's how to tackle career decisions without overthinking: imagine you're stuck choosing a movie on a streaming platform. There are hundreds of options, and you keep scrolling, unsure what to pick. But what if a friend recommended a movie they loved, and it matched your vibe? You'd probably hit play without a second thought, right?

That's exactly how career decisions work. Instead of drowning in endless possibilities, start with a default—look at where others with your skills or background have found success. Maybe your college buddy landed a great marketing role, or a family member carved out a steady career in teaching. Use their journey as a starting point. Defaults are powerful because they give you a simple, low-stress place to begin.



This ties into cognitive load theory—our brains can only process so much information at once. When faced with too many choices, decision fatigue sets in, making it harder to decide. Starting with a manageable number of options helps conserve mental energy and focus.

Still not sure? Use the principle of *choice architecture* to structure your options. Try an internship or volunteer gig in a field that intrigues you. Think of it like sampling ice cream flavors before committing to the whole cone. By experimenting, you'll learn what suits you, building momentum and confidence to explore further.

Don't worry about making the *perfect* choice right away. Behavioral economics calls this *satisficing*—choosing an option that's good enough for now rather than holding out for the ideal. *Action bias* also comes into play here: taking a step, even a small one, feels more satisfying than remaining stuck in indecision. The momentum you gain by starting somewhere reduces anxiety and builds clarity over time.

Finally, consider the endowment effect—we value things more once we've invested in them. Starting with any path makes it more likely you'll feel connected to it, which can motivate you to stick with and refine your choice.

Key Takeaways:

1. Defaults: Start with simple, proven options where others like you have succeeded.
2. Cognitive Load Theory: Limit choices to conserve mental energy and reduce decision fatigue.
3. Choice Architecture: Structure your decisions—use recommendations or short-term experiments to explore paths.
4. Satisficing: Aim for progress, not perfection. Pick a starting point and refine as you go.
5. Action Bias: Taking even a small step is more productive (and satisfying) than overthinking.
6. Endowment Effect: Investing effort into a path increases your attachment and commitment to it.

You don’t need to see the whole staircase to take the first step. Just start where it’s easy and let momentum guide you forward!

SOCIAL MEDIA:

Social Media: Take Control of the Scroll

Alright, picture this: you walk into a giant store, and every single product in the world is dumped into one chaotic pile. Socks mixed with kitchenware, books tangled up with snacks—absolute mayhem. You’d probably walk out frustrated, empty-handed, and maybe a little dizzy.

Now, imagine a store that’s designed *just for you*. The shelves are lined with your favorite things—your go-to coffee, that book you’ve been dying to read, and maybe even the sneakers you’ve been eyeing. Suddenly, shopping feels fun and easy.



Social media is kind of like that. If your feed feels overwhelming, chaotic, or draining, it’s time to curate it. Behavioral economics talks about *choice architecture*—organizing your environment to make decisions easier and better. It’s the same with your digital space.

First, unfollow accounts that spark FOMO (you know, those "perfect life" influencers that make you question every decision you’ve ever made). Mute people who post endless rants or drama that drain your energy. Instead, follow content that inspires you—maybe it’s pages that teach you something new, crack you up, or align with your real-life goals.

Now let’s talk about time. Ever gone down a scrolling rabbit hole and looked up 45 minutes later wondering where your life went? Yeah, we’ve all been there. That’s **time inconsistency**—the gap between what we *want* to do and what we *actually* do. Set boundaries for your scroll time. Maybe it’s 20 minutes before bed or while waiting in line. Be intentional—like a quick trip to the store, not wandering aimlessly for hours.

Key Takeaway: Social media doesn’t have to control you. Use these psychological hacks:

1. **Choice Architecture:** Curate your feed—unfollow, mute, and follow accounts that add value.
2. **FOMO Management:** Remember, what people post is their highlight reel, not the full story.

3. **Time Inconsistency:** Limit scroll time to when it's actually useful or enjoyable. Use timers if you have to.
4. **Positive Reinforcement:** Follow things that make you laugh, learn, or feel inspired so your feed becomes a place you *want* to visit.

Your digital space is yours to shape. Don't let algorithms or other people dictate what you see. Take charge of your scroll, and watch your screen time turn from a drain to a boost!

Finance: Automate Your Success

We've all been there—telling ourselves we'll start saving "next month," and somehow "next month" never shows up. A friend of mine was stuck in this exact loop until they set up an automatic transfer from their paycheck to a savings account. It wasn't a lot, just a small amount each payday. A year later, they had a solid emergency fund without even trying. That's the magic of automation!



Here's the deal: automating your savings isn't just convenient; it's a **commitment device**. You're basically locking yourself into a good decision before you're tempted to spend. Behavioral economics shows that this works because it removes the daily decision-making burden, which can drain your willpower. Want to level up? Use **mental accounting**: set up separate accounts for different goals—like "travel," "fun," or "rainy day." It's satisfying to see each bucket grow, and it keeps you motivated to stick to your plan.

The bottom line? Automate your finances and let the systems do the hard work for you. It's like brushing your teeth—once it's part of your routine, you don't even think about it anymore.

Health: Tiny Steps, Big Wins

Getting healthy can feel like staring at a mountain and being told to sprint to the top. Sounds exhausting, right? But what if someone said, "Just take a step"? That's manageable. I had a friend who started small—swapping their nightly soda for water. That's it. No crazy gym sessions or strict diets, just one tiny change. Over time, that little habit snowballed. They began walking for 10 minutes a day, then 20. Next thing you know, they were meal-prepping and sleeping better.



This works because of something called **the small wins theory**. Every tiny goal you achieve gives your brain a hit of dopamine—the feel-good chemical—which keeps you motivated to tackle the next one. It's like unlocking levels in a video game. Another trick? **Temptation bundling.** Pair something you love with a new habit, like only watching your favorite show while on the treadmill or listening to a killer podcast during your walk. It makes healthy habits feel less like a chore and more like a reward.

The takeaway? Don't overwhelm yourself with massive changes. Start small, celebrate tiny wins, and let those wins build into bigger, life-changing habits.

The Science of Simplifying Life

Here's the truth: life is full of decisions, and decision fatigue is real. But behavioral economics and psychology offer some great hacks to make things easier. Start with **defaults**—whether it's automating your savings or picking a simple career path, reduce the effort needed to make decisions. Use **choice architecture** to design your environment for success—curate your social media feed to focus on what makes you happy, or keep healthy snacks in sight.

Commitment devices like automating your finances lock you into good choices upfront. **Mental accounting** helps you stay organized by allocating money into different goals, and **incremental improvement** reminds you that big changes come from small steps. Want to make habits stick? **Temptation bundling** pairs something you love with the new behavior, making the process more enjoyable.

At the end of the day, it's not about perfection—it's about smart, simple choices that reduce stress and make life easier. Whether it's your wallet, your health, or your social media feed, remember: one small step can lead to big results.

B. More results

Descriptives of four domains(post-intervention_

	Csum	Fsum	Ssum	Hsum
N	22	22	22	22
Missing	0	0	0	0
Mean	31.3	30.1	31.7	31.4
Median	32.5	28.0	33.5	32.5
Standard deviation	9.07	8.05	6.92	6.93
Minimum	18	16	18	19
Maximum	47	40	41	41

Conclusion: The mean score of decision fatigue scale for all four domains: Career, Finance,Social Media and Health have insignificant difference and show improvement over the pre-intervention results.

Summary of Sums of scales for four domains after intervention of 22 participants are summarized as follows:

	Csum	Fsum	Ssum	Hsum
ID$1	20	20	20	20
ID$2	24	18	24	32
ID$3	37	36	33	36
ID$4	40	40	41	39
ID$5	41	40	40	40
ID$6	28	34	38	38
ID$7	21	28	29	25
ID$8	20	23	26	24
ID$9	31	28	29	27
ID$10	38	39	39	39
ID$11	18	16	22	23
ID$12	47	26	34	28
ID$13	34	28	26	33
ID$14	38	38	38	35
ID$15	39	37	34	38
ID$16	39	38	37	37
ID$17	24	25	34	19
ID$18	23	24	28	28
ID$19	27	28	30	26
ID$20	19	19	18	26
ID$21	41	40	40	41
ID$22	40	37	37	36

Success Rate **Before Intervation**

0.806818 **0.6875**