IBOM MEDICAL JOURNAL
Vol.17 No.2 | May - August, 2024 | Pages 284 - 291
www.ibommedicaljournal.org

Psychometric evaluation and validation of the Brain Fag Syndrome Scale among students at Bayero University Kano.

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Abstract

Background: This study delved into the Psychometric Evaluation and Validation of the Brain Fag Syndrome Scale (BFSS) among students at Bayero University Kano. Documented extensively among African students, particularly in academic settings, Brain Fag Syndrome (BFS) is rooted in recurrent mental exhaustion impacting students emotionally and physically. As the concept of BFS as an exhaustion syndrome emerged, a thorough examination of its psychometric properties became essential.
Methods: Employing a cross-sectional survey design, 625 3rd-year undergraduate students from Bayero University Kano were randomly selected, representing 89.3% of the intended sample size. Socio-demographic characteristics were explored, scale reliability was measured using Cronbach's alpha, and Exploratory Factor Analysis (EFA) was conducted to unveil the BFSS latent structure. The Brain Fag Syndrome and Fatigue Assessment Questionnaire development stemmed from identified components related to Fatigue and Exhaustion.
Results: Analysis with SPSS v26 included all 625 participants with complete data. BFSS exhibited moderate to good reliability (Cronbach's alpha ≈ 0.738). EFA identified a distinct "Fatigue and Exhaustion Factor," strongly linked to fatigue and concentration challenges. A scree plot aided in retaining optimal factors, highlighting the dominance of the identified factor.
Conclusion: This study significantly contributes to the validation of the Brain Fag Syndrome Scale (BFSS) and the derivation of a prototype questionnaire for fatigue and exhaustion syndrome. The identified factors align with the evolving understanding of BFS as an exhaustion syndrome, informing diagnostic criteria refinement and enriching the discourse on students' psychological well-being within a cultural context.

Keywords: Bayero University, Brain Fag Syndrome, Psychometric Evaluation, Exhaustion Syndromes.

Introduction

This study focused on the Psychometric Evaluation and Validation of the Brain Fag Syndrome Scale (BFSS) among students at Bayero University Kano, addressing nosological concerns surrounding Brain Fag Syndrome (BFS). Documented extensively among African students, particularly in their academic experiences, BFS had roots in recurrent mental exhaustion that affected students emotionally and physically. As BFS prompted questions about its diagnostic classification, the evolving notion of conceptualising it as an exhaustion syndrome necessitated a comprehensive examination of its psychometric properties. The primary aim was to assess the reliability and validity of the BFSS, contributing to a broadened understanding of its effectiveness in measuring students' well-being and academic experiences. Following meticulous factor

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DOI: 10.61386/imj.v17i2.437

analysis, the study took another step by creating a questionnaire derived from the BFSS. This approach investigated shared factors, providing an in-depth examination of the well-being of Nigerian university students. By scrutinizing the measurement properties of both the BFSS and the derived questionnaire, the study aimed to shed light on the nosological aspects of BFS and explore its potential alignment with exhaustion syndromes. Anticipated outcomes aimed to inform the refinement of diagnostic criteria and contribute to the broader discourse on the psychological well-being of students in a cultural context.

Essien, Edet, Okafor, Abdullahi, and Udofia provided a valuable backdrop, conducting a comparative analysis of two prominent exhaustion syndromes—Brain Fag Syndrome (BFS) and burnout—among Nigerian adolescents.[1] Despite cultural distinctions, both syndromes shared exhaustion as a core feature, manifesting physically, emotionally, and cognitively. This study suggested a potential unified construct of exhaustion, prompting a streamlined approach to measurement. It emphasized recognizing the BFS-burnout relationship within cultural contexts and differentiating the types of fatigue exhibited in BFS and burnout. The literature also underscored the pivotal role of psychometric evaluation in advancing psychological research, introducing the BFSS as a valuable tool for understanding stress among African students.[1]

The study by Ola and Igbokwe focused on the psychometric evaluation of the Brain Fag Syndrome Scale (BFSS), a screening scale developed by Prince and refined by Morakinyo.[2] The primary objective was to assess the factorial validity and reliability of the BFSS for evaluating brain fag syndrome among students. The study involved 234 participants from private and public secondary schools, aged 11–20 years.

The results of factor analysis revealed two valid factors: burning sensation and crawling sensation, categorizing the BFSS as a two-dimensional scale. Reliability analysis indicated a moderate internal consistency with a Cronbach Alpha coefficient of 0.521. Concurrent validity was established by correlating BFSS with other tests, showing a significant correlation with anxiety (STAI) and no significant correlation with peer relations (IPR).

The study concluded by claiming that the BFSS was a valid and reliable instrument for assessing Brain Fag Syndrome (BFS), contributing to the empirical validation of the scale.[2] The identified factors by Ola and Igbokwe aligned with Prince's examination of BFS symptoms during intellectual activities.[3] While acknowledging limitations, such as lower communalities in some items, the study emphasized the need for further research to refine diagnostic criteria and explore the social and economic implications of BFS.

In line with these insights, the research conducted at Bayero University Kano aimed to develop a questionnaire based on the BFSS to assess common factors contributing to BFS and to gain a comprehensive understanding of the well-being of Nigerian university students. While the literature on Brain Fag Syndrome (BFS) was omitted from this study due to its irrelevance, it provides valuable insights into the origins of BFS, (3-7) diverse conceptual frameworks used to understand it, (5-10) and the factors influencing its manifestation. (3-10) Incorporating historical context, evolving diagnostic perspectives, and empirical studies, this body of literature establishes a solid foundation for further exploration into exhaustion syndromes.

Materials and methods

Site: The study was conducted at Bayero University, situated in Kano, Kano State, Nigeria. The university has an estimated undergraduate student population of (35,000) and comprises 18 faculties and 87 departments.[11]

Research Design: A cross-sectional survey design was employed to select participants from the undergraduate students of Bayero University Kano.

Study Participants: Participants for this study were selected using a randomized process from the population of 3rd-year undergraduate students at the university. Through a multistage sampling technique, 625 respondents, comprising 89.3% of the intended sample size, were chosen. The procedure involved the random selection of seven faculties out of the 18 faculties in the university. Subsequently, one department was randomly chosen from each selected faculty. Finally, participants in their 3rd year from each department were selected through a simple balloting process. The choice of this specific cohort was made with the

anticipation that manifestations of Brain Fag Syndrome would be more pronounced at this stage of their academic journey.[12] Students who chose not to provide consent were excluded from participating in the study.

Sampling Technique: The sample size (n) was determined using the following formula:

$$n = \frac{Z^2 . p.(1-p)}{E^2}$$

where:

- n is the required sample size.
- Z is the Z-score corresponding to the desired level of confidence (at a 99% confidence level, Z is approximately 2.576).
- p is the estimated proportion of the population with the characteristic of interest (this was set to 0.5 since there was no prior estimate from the area, to get a conservative estimate and maximum variance).
- E is the margin of error or confidence interval width (in this case, 5%, so E was 0.05).

The calculated sample size was approximately 664, which was subsequently increased to 700 to enhance the study's statistical power and account for potential attrition.

Data Collection: Quantitative data were collected using a structured self-administered questionnaire with two sections. The first section gathered socio-demographic information, including age, gender, and ethnicity. The second section included the Brain Fag Syndrome Scale (BFSS), a 7-item scale validated to identify brain fag syndrome symptoms.

Data Analysis: During data analysis, SPSS version 26 was used to examine socio-demographic characteristics and measure scale reliability.[13] Participant socio-demographics were explored and presented in a frequency table, and missing data were addressed through Listwise deletion. The scale's reliability, assessed by Cronbach's alpha ($\alpha \approx 0.738$), indicated moderate to good reliability with all 625 cases contributing valid data. Exploratory Factor Analysis (EFA) unveiled the Brain Fag Syndrome Scale's latent structure and assessed construct validity in Bayero University Kano's cultural context. A scree plot determined factors to retain. In response to a principal component identified as "Fatigue and Exhaustion," the "Brain Fag Syndrome and Fatigue Assessment Questionnaire" was developed to assess related experiences.

Ethical Considerations: The study complied with ethical guidelines, including obtaining informed consent, ensuring participant anonymity, and maintaining data confidentiality. Ethical approval from Aminu Kano's ethics committee was obtained (Ethics approval code: NHREC/28/01/2020/AKTH/EC/3299).

Development of the Brain Fag Syndrome and Fatigue Assessment Questionnaire

In response to the analysis findings, a specialized instrument, the "Brain Fag Syndrome and Fatigue Assessment Questionnaire," was developed to comprehensively assess experiences related to Brain Fag Syndrome and fatigue among the student population.

Results

In this section, we present the results of the Brain Fag Syndrome Scale analysis. All 625 cases were included in the analysis with complete data, using listwise deletion for handling missing data. The scale demonstrated moderate to good reliability (Cronbach's alpha ≈ 0.738).

Table 1 summarizes the socio-economic and demographic characteristics of the student participants. The majority (66.1%) were aged between 20-30 years, with a slightly higher representation of males (53.6%) than females (46.4%). The sample was ethnically diverse, with Hausa (35.8%), Yoruba (32.3%), Igbo (13.1%), and other ethnic groups (18.7%).

In terms of relationship status, a significant portion of students were single (79.0%), and a smaller percentage were married (17.3%). Birth positions varied among first-born (28.2%), second-born (35.8%), third-born (18.4%), and fourth-born (17.6%) individuals. Family structures included mostly monogamous homes (68.2%) and a substantial proportion in polygamous setups (25.6%).

Family income per month analysis revealed diverse financial backgrounds, with 43.5% reporting a monthly income of N100,000 and above.

Table 1: Socio-demographic Characteristics of The Students

Variables	Frequency	Percent
Age (Last Birthday)		
Below 20 years	114	18.2
20-30 years	413	66.1
31-40 years	91	14.6
41-50 years	3	.5
Above 50 years	4	.6
Total	625	100.0
Sex		
Male	335	53.6
Female	290	46.4
Total	625	100.0
Ethnicity		
Hausa	224	35.8
Yoruba	202	32.3
Igbo	82	13.1
Other	117	18.7
Total	625	100.0
Relationship Status		
Single	494	79.0
Married	108	17.3
Divorced	11	1.8
Widow	12	1.9
Total	625	100.0
Birth Position		
First Born	176	28.2
Second Born	224	35.8
Third Born	115	18.4
Fourth Born	110	17.6
Total	625	100.0
Type of Home		
Monogamous	426	68.2
Polygamous	160	25.6
Parents Divorced	39	6.2
Total	625	100.0
Family Income Per Month(N)		
10,000 - 20,000	63	10.1
20,000 - 50,000	127	20.3
50,000 - 100,000	163	26.1
100,000 and above	272	43.5
Total	625	100.0

Table 2: Communalities for the Brain Fag Syndrome Scale - Exploratory Factor Analysis.

Items	Variables	Initial	Extraction
A	Periods of complete exhaustion and fatigue	1.00	.330
B	Feeling that words do not make sense when reading	1.00	.458
C	Difficulty concentrating when studying	1.00	.461
D	Experiencing brain burning, crawling, heat, cold, or other unpleasant sensations in the head while studying.	1.00	.414
E	Unpleasant sensations (burning, crawling, heat, cold) make it difficult to study or assimilate what is read.	1.00	.426
F	Satisfaction with general efficiency in studying and with retention (assimilation) of what is studied.	1.00	.206
G	Suffering from unpleasant sensations in the body related to the study	1.00	.467

Extraction Method: Principal Component Analysis.

Table 3: Total Variance for the Brain Fag Syndrome: Exploratory Factor Analysis

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.762	39.453	39.453	2.762	39.453	39.453
2	.973	13.900	53.354			
3	.829	11.838	65.192			
4	.692	9.879	75.070			
5	.654	9.346	84.417			
6	.567	8.093	92.510			
7	.524	7.490	100.000			

Extraction Method: Principal Component Analysis

Note: Variables A to G in Table 2 correspond to variables 1 to 7 in Table 3 in the same order

Table 4: Factor Loadings for Brain Fag Syndrome Scale Items

Variables	**Component Matrix [a]**
	1
A	**.575**
B	**.677**
C	**.679**
D	**.643**
E	**.653**
F	**.454**
G	**.684**

Extraction Method: Principal Component Analysis.

a. 1 component extracted (Fatigue and Exhaustion Factor).

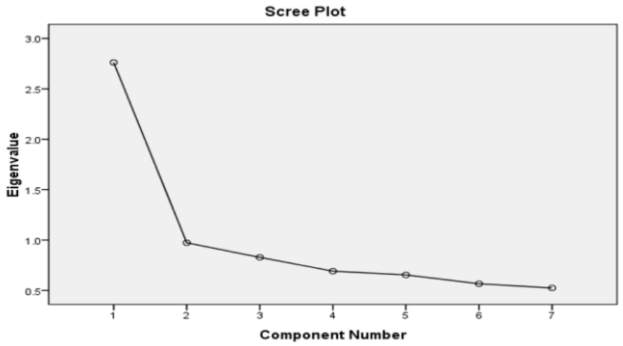

Figure 1 Scree Plot for Factor Analysis of the Brain Fag Syndrome Scale

Exploratory Factor Analysis of the Brain Fag Syndrome Scale

Table 2 illustrated the communalities derived from the exploratory factor analysis of the Brain Fag Syndrome Scale. Initial communalities were perfect (1.00), indicating each variable's perfect correlation with itself. After extraction through Principal Component Analysis, the communalities ranged from .206 to .467, unveiling the extent of variance in each variable explained by the identified factors.

Table 3 presented the results of the exploratory factor analysis for the Brain Fag Syndrome Scale, indicating the variance explained by each component. The initial eigenvalues demonstrated that the first component accounted for a substantial proportion of the total variance (39.453%), with subsequent components explaining additional variance. The extraction sums of squared loadings further illustrated the cumulative percentage of variance explained by each component, emphasizing the dominance of the first component in capturing almost 40% of the overall variance.

Table 4 illustrated the factor loadings of items from the Brain Fag Syndrome Scale, revealing their associations with the "Fatigue and Exhaustion Factor" identified through Principal Component Analysis. Noteworthy associations included:

- Item A (Periods of complete exhaustion and fatigue) showed a moderate positive link (.575) with experiences of exhaustion.
- Item B (Feeling that words do not make sense when reading) displayed a robust positive connection (.677) with fatigue and concentration challenges.
- Item C (Difficulty concentrating when studying) indicated a strong positive association (.679) with fatigue and concentration challenges.
- Item D (Experiencing brain burning, crawling, heat, cold, or other unpleasant sensations in the head while studying) revealed a moderate positive association (.643) linked to brain sensations.
- Item E (Unpleasant sensations making it difficult to study or assimilate what is read) displayed a moderate positive association (.653) associated with study difficulties.
- Item F (Satisfaction with retention of what is studied) presented a weaker positive link (.454) with the Fatigue and Exhaustion Factor.
- Item G (Suffering from unpleasant sensations in the body related to the study) showed a substantial positive connection (.684) with the Fatigue and Exhaustion Factor.

The identified "Fatigue and Exhaustion Factor" emerged as a distinct pattern within the Brain Fag Syndrome Scale, strongly tied to experiences of fatigue and concentration challenges. Figure 1 complemented this by illustrating a scree plot that aided in identifying meaningful factors through eigenvalues.

In Figure 1, the scree plot depicts the eigenvalues of the extracted factors. The 'elbow' point in the scree plot, where the eigenvalues began to level off, indicated the optimal number of factors to retain. In this analysis, only one component was extracted, referred to as the "Fatigue and Exhaustion Factor," corresponding to the point where the eigenvalues ceased to show a significant increase.

Discussion

The present study focused on psychometrically evaluating and validating the Brain Fag Syndrome Scale (BFSS) among students at Bayero University Kano, with an emphasis on nosological concerns related to Brain Fag Syndrome (BFS).[1,3,5,8,9]

Essien et al.'s comparative analysis established a foundational framework that recognizes exhaustion as a central feature in both Brain Fag Syndrome (BFS) and burnout among Nigerian adolescents.[1] Our study seamlessly aligned with Essien et al.'s insights, emphasizing the intricate relationship between BFS and exhaustion syndromes. Their work not only suggests the potential for a unified construct of exhaustion but also advocates for a streamlined approach to measurement, emphasizing the importance of cultural sensitivity in recognizing and distinguishing manifestations of fatigue in BFS and burnout. Building upon this foundation, our study contributes to the comprehension of exhaustion syndromes, specifically within the cultural context of Bayero University Kano, Nigeria.

Ola and Igbokwe's research provided a foundational validation of the Brain Fag Syndrome Scale (BFSS) as a reliable instrument for evaluating brain fag syndrome among students. Their study, involving 234 participants from private and public secondary schools, identified two distinct factors—burning sensation and crawling sensation—categorizing the BFSS as a two-dimensional scale. The psychometric evaluation indicated a moderate internal consistency (Cronbach Alpha = 0.521), with concurrent validity established through significant correlations with anxiety (STAI) and no significant correlation with peer relations (IPR).[2]

Expanding upon the groundwork laid by Ola and Igbokwe, our present study conducted a thorough factor analysis and extended the inquiry by developing a specialized questionnaire based on the BFSS. Our factor analysis revealed a prominent "Fatigue and Exhaustion Factor," suggesting the consolidation of various symptoms within the broader category of fatigue and exhaustion. This finding diverges from the two-dimensional structure identified by Ola and Igbokwe, despite the factors in their study being associated with experiences of exhaustion and intellectual activities. The earlier study underscores the prevalence of symptoms such as burning and crawling sensations during reading or studying, aligning with the concept of exhaustion linked to intellectual activities. Taking a significant step forward, our research not only validates but also adapts the BFSS to reflect a specific "Fatigue and Exhaustion Factor," aligning with broader literature that recognizes exhaustion as a core feature in both

BFS and burnout.[1]

The reliability analysis of the BFSS in this study indicated moderate to good internal consistency (Cronbach's alpha ≈ 0.738), enhancing its credibility as a measurement tool. The factor analysis revealed a singular factor, suggesting that the BFSS primarily assesses a unified construct related to fatigue and exhaustion. This finding aligns with Essien et al.'s notion of a potentially unified construct of exhaustion in the context of BFS and burnout.[1]

Exploring communalities and factor loadings for each BFSS item showed that items linked to fatigue, difficulty concentrating, and unpleasant sensations while studying strongly correlated with the "Fatigue and Exhaustion Factor." This resonates with the historical understanding of BFS rooted in mental exhaustion during intellectual activities. (3-5)

Essien et al.'s exploration of the correlation between burnout and Brain Fag Syndrome (BFS) highlighted connections, particularly between the Emotional Exhaustion (EE) and Cynicism (CYN) dimensions of burnout and BFS.[1] In contrast, our study at Bayero University Kano delved deeper using Exploratory Factor Analysis (EFA), revealing robust positive associations between fatigue-related items and the newly identified "Fatigue and Exhaustion Factor."

Essien et al. identified a four-factor structure in the EFA of Brain Fag Syndrome Scale (BFSS), including a "Common exhaustion factor" loaded with items from both constructs.[1] Our study, however, identified a unidimensional "Fatigue and Exhaustion Factor," capturing experiences of exhaustion, difficulty concentrating, and unpleasant sensations during studying.

Comparing Essien et al.'s work,[1] Ola and Igbokwe's study,[2] and our present research provides comprehensive insights into BFS and BFSS. Essien et al. focused on adolescents around age 16, with a prevalence in public school students from Calabar municipality. In contrast, our study explored a diverse demographic at Bayero University Kano with a broad age range, balanced gender representation, and varied ethnic backgrounds.

Reliability and validity considerations differed; while Essien et al. acknowledged limitations, our study demonstrated moderate to good reliability, reinforcing BFSS utility. Ola and Igbokwe introduced factors like "Burning Sensation" and "Crawling Sensation," explaining 44% of the total variance and emphasizing construct validity.

Comparative analysis across the studies highlighted differences in factor structures, reliability measures, and BFS association with burnout dimensions. Recognizing these challenges, our study introduced the "Common exhaustion factor," providing a specific dimension crucial for understanding and addressing BFS.

The development of the "Brain Fag Syndrome and Fatigue Assessment Questionnaire" in our study significantly contributes to the field. This specialized instrument offers a comprehensive assessment of BFS and fatigue experiences among university students, enriching the broader discourse on exhaustion syndromes within a specific cultural context.

Limitations and Future Directions

While this study offers valuable insights, it is essential to acknowledge certain limitations. The cross-sectional design restricts the establishment of causal relationships, and findings may be subject to temporal variations. Additionally, the study's focus on 3rd-year undergraduate students may limit the generalizability of the results.

Future research endeavours could explore the longitudinal dynamics of BFS and exhaustion syndromes across diverse academic stages. Investigations into potential cultural variations in the manifestation and interpretation of BFS symptoms could enhance the cultural sensitivity of assessment tools.

Conclusion

This study significantly contributes to the understanding of Brain Fag Syndrome by psychometrically evaluating and validating the BFSS among students at Bayero University Kano. The findings align with existing literature, highlighting the importance of recognizing the BFS-burnout relationship and differentiating types of fatigue. The development of a specialized questionnaire enriches the field by providing an assessment tool, emphasizing the need for culturally relevant and comprehensive well-being assessments among Nigerian university students.

Recommendations

To advance research in this field, several recommendations are proposed:

Replication and Validation: Subsequent studies should aim to replicate and validate these findings in diverse cultural and academic contexts to enhance the generalizability of the "Fatigue and Exhaustion Factor."

Longitudinal Research: Future research efforts should consider employing longitudinal study designs to examine the evolution and trajectories of Brain Fag Syndrome and associated fatigue over time.

Intervention Strategies: Given the observed overlap between Brain Fag Syndrome and burnout, educators and institutions are recommended to implement targeted intervention strategies to support students in managing academic pressures and emotional exhaustion.

Collaboration: Encourage collaborative research initiatives involving experts from various backgrounds and locations. This collaborative approach can lead to a more nuanced understanding of the complex interplay between Brain Fag Syndrome and related psychological phenomena.

Future Questionnaire Development

As part of the future directions for this research, it is imperative to note that the prototype questionnaire is available in the appendix section. The newly developed 'Brain Fag Syndrome and Fatigue Assessment Questionnaire' will undergo additional stages of testing and validation. These steps are vital to enhancing the questionnaire's robustness and applicability for broader use in similar contexts.

Comprehensive Pilot Testing: The questionnaire will undergo a comprehensive pilot testing phase with a larger sample drawn from the target population to identify and address potential issues related to clarity, comprehensibility, and relevance.

Validity and Reliability Assessment: A rigorous evaluation of construct validity will ensure accurate measurement of intended concepts, while reliability, both internal consistency and test-retest reliability, will be examined to ensure consistent and dependable results.

Refinement and Strengthening: By subjecting the questionnaire to these additional validation steps, the aim is to refine and strengthen its effectiveness as a tool for assessing Brain Fag Syndrome and fatigue. This process will enhance its utility in future research and practical applications. Future researchers are encouraged to consider these improvements and contribute to the ongoing development of this instrument for a better understanding of these phenomena in similar settings.

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Appendix i:

Development of the Brain Fag Syndrome and Fatigue Assessment Questionnaire

In response to the analysis findings that revealed a principal component related to "Fatigue and Exhaustion," we recognized the need for a specialized instrument to comprehensively assess the experiences related to Brain Fag Syndrome and the newly identified component of fatigue and exhaustion within the unique cultural context of the students at Bayero University Kano. To address this need, we developed the "Brain Fag Syndrome and Fatigue Assessment Questionnaire." This questionnaire aims to provide a more thorough understanding of these phenomena among the student population.

Brain Fag Syndrome and Fatigue Assessment Questionnaire

Instructions: Please answer the following questions based on your experiences. Use the scale provided to indicate your level of agreement or frequency.

Section 1: Brain Fag Syndrome

For each question in this section, please indicate how often you experience the described feelings or sensations while studying or working.

1. Do you often experience periods of complete exhaustion and fatigue when studying or working?
   - Never Rarely Sometimes Often Always
2. When studying, do you ever feel that the words you read do not make sense?
   - Never Rarely Sometimes Often Always
3. Have you ever found it difficult to concentrate when studying?
   - Never Rarely Sometimes Often Always
4. Do you ever experience sensations like brain burning, crawling, heat, cold, or other unpleasant feelings in your head while studying?
   - Never Rarely Sometimes Often Always
5. *If you answered "Sometimes," "Often," or "Always" to question* 4: Do these unpleasant sensations (burning, crawling, heat, cold) make it difficult for you to study or understand what you read?
   - Never Rarely Sometimes Often Always

Section 2: Fatigue and Exhaustion

For each question in this section, please indicate how frequently you experience the described feelings or sensations in your daily life.

1. In general, do you frequently feel physically tired?
   - Never Rarely Sometimes Often Always
2. Have you ever felt mentally drained or fatigued from studying or work?
   - Never Rarely Sometimes Often Always
3. Do you often experience unpleasant sensations or discomfort in your body while studying or working?
   - Never Rarely Sometimes Often Always
4. *If you answered "Sometimes," "Often," or "Always" to question* 3: Does this body discomfort or unpleasant sensation make it challenging for you to focus on your tasks?
   - Never Rarely Sometimes Often Always

Section 3: Coping and Satisfaction

For each question in this section, please indicate your level of agreement with the statements.

1. Are you generally satisfied with your overall efficiency when studying or working?
   - Strongly Disagree Disagree Neutral Agree Strongly Agree
2. Do you feel confident in retaining and assimilating what you study or work on?
   - Strongly Disagree Disagree Neutral Agree Strongly Agree

Thank you for completing the Brain Fag Syndrome and Fatigue Assessment Questionnaire. Your responses will help us better understand these aspects of your experiences.