Academic Burnout among Students studying in Selected Secondary School of Chitwan

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INTRODUCTION

The concept of burnout was first proposed by an American psychologist, Freudenberger in the 1970s [1]. Academic burnout or student burnout is defined as “a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that occurs as a response to emotional and interpersonal stressors among individuals” [2,3]. Today’s students are facing dual stress in their academic endeavor i.e., higher academic expectations and perceived pressure from their parents. The aim of the study is to assess the level of academic burnout among the plus two students. MATERIAL AND METHODS: A cross-sectional study was done among secondary level students in a school in Bharatpur municipality. The study was conducted during October 2021 and December 2021 among plus two level students. A self-administered questionnaire was used for data collection. Burnout was measured by using a 25 items tool comprising different types of burnout. Descriptive and inferential statistics were computed at 5% level of significant. RESULTS: Of total; 62.2% and 7.4% students had mild and moderate burnout respectively. Median value of total burnout was 56 out of the maximum value 125. There was strong significant correlation between personal and study related burnout, moderate significant correlation between personal and classmate related, and between personal and instructor related burn out. There was significance difference in the median personal burn out and instructor related burnout level among male and female students. CONCLUSIONS: High academic burnout was found among secondary level students. Intervention is required to address the burden.

Keywords: Academic burnout, personal burn out, study related burn out
this study was to find out the magnitude of different types of academic burnout among the plus-two level students.

MATERIAL AND METHODS
Study design and setting
This was a cross-sectional study conducted among plus two level students in a school of Bharatpur metropolitan city from October 2021 to December 2021. Bharatpur Metropolitan City in the central-southern part of Nepal located in Chitwan District. Bharatpur City is the District headquarter of the Chitwan District and is the fifth largest city of Nepal with the population of 199,867. Bharatpur is one of the fast-growing cities of Nepal. It lies on the left bank of Narayani River and serves as a commercial centre of Chitwan district and central region of Nepal [13].

Participants, sampling and sample size
Plus two level students were enrolled in this study following complete enumeration technique incorporating total students studying same level at Sun Rise English school Bharatpur Chitwan. Plus two level student, usually adolescents, are the fragile group of population. Documented sources of academic burnout have included fear of falling behind with coursework, time pressures, financial worries, and concern about academic ability [4, 14].

Data among these students was collected through self-administered tool called “The Copenhagen Burnout Inventory Student version (CBI-S)” on 24th May 2022 to 26th May 2022 [15]. A total of 230 participants were enrolled in the study.

Data collection and study variables
After the brief introduction, sharing of study objectives and brief procedural orientation to fill the study questionnaire participants were asked to self-administer the questionnaire. Students’ seating was arranged with proper space between each individual by keeping only 2 students per bench for maintaining confidentiality during filling the Likert scale and 30 (thirty) minutes was provided to complete. After 30 minutes filled questionnaire were collected back. Anonymity was maintained by allotting unique number to each questionnaire.

Burnout was measured by using a 25 items ‘the Copenhagen Burnout Inventory Student version’ (CBI-S) comprising different type of burnout [15]. Copenhagen Burnout Inventory (CBI) adopted for students by Campos et al. [16] CBI-S, translated and validated by authors [17, 18]. The CBI-S consists of 25 items that represent four dimensions: Personal Burnout, Studies-Related Burnout, Colleague-Related Burnout, and Teacher-Related Burnout (TRB). The answers that can be given to each item were “always = 100”, “frequently = 75” “sometimes = 50” “rarely = 25” and “never = 0”, with inverse scoring for item 10. For each scale, a total average score was calculated. A burnout level (severity) was assessed according to Kristensen’s criteria [19]. Internal consistency of CBI-S among current sample was excellent (Cronbach’s α = 0.942) [20]. The measured score was classified <50 score as minimal or no burnout, score of 50 to 74 are considered ‘mild burnout 75–99 are moderate and a score of 100 or above’ is considered severe burnout.

Data management and Statistical analysis
Data were entered and analyzed using SPSS version 20. Descriptive statistics such as frequency, central tendencies were computed. Pearson correlation was computed to see the correlation between type of burnout and total burnout among secondary students. Independent samples Mann-Whitney U Test was computed to see the difference of burnout among male and female students. Level of significant was set 5% level of significant.

Ethical consideration
Ethical clearance was obtained from the Chitwan Medical College Institutional review committee (ref no.: CMC IRC 077/78-226) prior the data collection.

RESULTS
Of the total 230, 62.6% students were male and 72.2% were in the age group of 15 to 17 years. Among the study population, 53.5% were in the grade 11 and 42.2% belongs to Brahmin ethnicity. Regarding the burnout status, less than one third, 30.4% were normal or has not burnout symptoms; 27.8% considered mild burnout 75–99 are moderate and 7.4% had mild and moderate burnout respectively (Table 1).

| Variables  | Frequency | Percentage |
|------------|-----------|------------|
| Age group  |           |            |
| 15 to 17   | 166       | 72.2       |
| 18 to 20   | 64        | 27.8       |
| Grade      |           |            |
| 11.00      | 123       | 53.5       |
| 12.00      | 107       | 46.5       |
| Ethnicity  |           |            |
| Brahmin    | 97        | 42.2       |
| Chhetri    | 53        | 23.0       |
| Janajati   | 56        | 24.3       |
| Other      | 24        | 10.4       |
Majority of respondents were falling under the category of mild burnout (62%) followed by minimal or no burnout (31%). A total of 7 percent of respondents fall under the moderate burnout category. (Figure 1). Grade of students (p<0.001) and ethnicity (p<0.05) were significant with the level of burnout whereas gender (p=0.774) and age (p=0.161) were not significant with the level of burnout (Table 2). Median personal burnout was 15 out of the maximum 30 whereas median of study related burnout was 18 out of the maximum 35. Similarly, median of classmate related burnout and instructor related burn out was 11 out of 30. While combining all types of burnout, median value of total burnout was 56 out of the maximum value 125 (Table 3).

![Figure 1](image.jpg)

**Figure 1** | Level of burnout among the schoolchildren

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### Table 2: Level of burnout and its association with sociographic variables (n=230)

| Variables   | Category | Minimal (%) | Mild (%) | Moderate (%) | p-value |
|-------------|----------|-------------|----------|--------------|---------|
| Sex         | Male     | 46 (31.9)   | 87 (60.4) | 11 (6.6)     | 0.774   |
|             | Female   | 24 (27.9)   | 56 (65.1) | 6 (7.0)      |         |
| Age         | 15-17    | 50 (30.1)   | 107 (64.5) | 9 (5.4)     | 0.161   |
|             | 18-20    | 20 (31.3)   | 36 (56.3)  | 8 (12.5)    |         |
| Grade       | 11       | 44 (35.8)   | 78 (63.4)  | 1 (0.8)     | 0.000   |
|             | 12       | 26 (24.3)   | 65 (60.7)  | 16 (15)     |         |
| Ethnicity   | Brahmin  | 40 (41.2)   | 53 (54.6)  | 4 (4.1)     | 0.029   |
|             | Chhetri  | 11 (20.8)   | 36 (67.9)  | 6 (11.3)    |         |
|             | Other*   | 19 (23.8)   | 54 (67.5)  | 7 (8.8)     |         |
| Religion#   | Hindu    | 62 (32.0)   | 119 (61.3) | 13 (6.7)    | NA      |
|             | Buddhist | 8 (26.7)    | 19 (63.3)  | 3 (10.0)    |         |
|             | Other**  | 0 (0.0)     | 5 (83.3)   | 17 (7.4)    |         |

* Janajati and madhesi    **Includes Muslim and Christian

*not fit for computing chisquare test

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### Table 3: Academic burnout among students

| Burnout                          | Minimum | Maximum | Median | 95% CI       |
|----------------------------------|---------|---------|--------|--------------|
| Personal (6 items)               | 9       | 28      | 15.00  | 14.58-15.46  |
| Study related (7 items)          | 9       | 34      | 18.00  | 17.91-19.14  |
| Classmate related                | 6       | 25      | 11.00  | 10.76-11.75  |
| Instruction related (6 items)    | 6       | 30      | 11.00  | 11.31-12.56  |
| Total (25 items)                 | 34      | 102     | 56.00  | 55.16-58.34  |

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### Table 4: Correlation between study related and classmate related, and classmate related and instructor related burnout

| Burnout                          | Personal | Study related | Classmate related | Instruction related | Total    |
|----------------------------------|----------|---------------|-------------------|---------------------|---------|
| Personal                         | 1        | 0.571**       | 0.321**           | 0.338**             | 0.732** |
| Study related                    | 0.571**  | 1              | 0.158*            | 0.519**             | 0.799** |
| Classmate related                | 0.321**  | 0.158*        | 1                 | 0.294**             | 0.577** |
| Instructor related               | 0.338**  | 0.519**       | 0.294**           | 1                   | 0.781** |
| Total                            | 0.732**  | 0.799**       | 0.577**           | 0.781**             | 1       |

Note: ** p value ≤0.01; p value ≤ 0.05 level
The study shows the correlation between the different components of burnouts and of component with total burnout. There is strong significant correlation between personal and study related burnout. There is moderate significant correlation between personal and classmate related, personal and instructor related burnout. However, weak but significant correlation between study related and classmate related, and classmate related and instructor related burnout (Table 4). There was significance difference in the median personal burnout and instructor related burnout level among male and female students. However, there was no difference in the study related, classmate related and total burnout level (Table 5).

**DISCUSSION**

High dropout rates are harmful for the educational institutions, these tendencies are also detrimental from an individual perspective, as dropout is often associated with sociocultural or psychological issues [21]. When students perceive tensioned fulfilling their school tasks, they may show maladaptive behaviors like absenteeism, worse grades including aggressive behaviors, which may result into severe consequences for their future health [5,6]. By assessing through the CBI-S tool, present study showed that more than two third, i.e., 69.6% were found having academic burnout where 62.2% were having mild burnout and 7.4% as moderate burnout. Similar study conducted in Saudi Arabia in 2017 also found similar finding where 67.1% of students were having burnout [22]. Another similar study conducted in Malaysia reported comparatively low level of moderate level academic burnout, i.e., 25.0% and contradictory to our finding it reported 63.6% as high or severe academic burnout [23].

In the present study, Median personal burnout was 15 out of the maximum 30 where as median of study related burnout was 18 out of the maximum 35. Similarly, median of classmate related burnout and instructor related burnout was 11 out of 30. While combining all types of burnout, median value of total burnout was 56 out of the maximum value 125. Our study revealed that grade/class of the participants (p<0.01) and ethnicity of the participants (p<0.05) were significant towards academic burnout whereas there was no significant association of academic burnout with gender and age of the participants. Studies revealed a contrasting finding where burnout was found to increase over the increased years. [24, 25] The inconsistent results may possibly due to the various demographics in different fields. Very high prevalence of academic burnout in the present study suggest that the school should show some level of relaxation and flexibility towards students. There should be allotment of more extra-curricular activities including sports and academic visits. Exercise, take days off, limit study hours per day, take breaks, develop support system, dedicate time for fun, eat well, minimize distractors, sleep well, study with others, identify suitable study space(s), and recognize feelings of burnout are normal are some of the proven strategies to minimize the level of academic burnout among the students.

**CONCLUSION**

Slightly more than two-third of the students were having academic burnout. Academic years and ethnicity was associated with the academic burnout. Median value of total burnout was 56 out of the maximum value 125. There was strong significant correlation between personal and study related burnout, moderate significant correlation between personal and classmate related, and between personal and instructor related burnout. Very high prevalence of academic burnout in the present study suggest that the school should show some level of relaxation and flexibility towards students.

| Table 5: Different type of burnout among male and female students (n=230) |
|-----------------|-----------------|-------------|
| Burnout          | Median burnout (Inter-quartile range) | P value* |
| Personal         | Male | Female | 0.000   |
| Study            | 18 (7.00) | 18 (7.00) | 0.736   |
| Classmate        | 11 (5.00) | 10 (6.00) | 0.960   |
| Instruction      | 11 (7.50) | 10 (5.00) | 0.009   |
| Total            | 55(18.00) | 56(16.00) | 0.748   |

*Independent samples Mann-Whitney U Test
ADDITIONAL INFORMATION AND DECLARATIONS

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REFERENCES

1. Boada-Grau J, Merino-Tejedor E, Sánchez-Garcia JC, Prizmic-Kuzmic A, Vigil-Colet A. Adaptation and psychometric properties of the SBI-U scale for academic burnout in university students. Ann Psychol. 2015;31:293-7.

2. Maslach C, Schaufeli WB, Leiter MP. Job burnout. Annu Rev Psychol. 2001;52:397-422.

3. Nikodijević A, Labrović JA, Đoković A. Academic burnout among students at faculty of organizational sciences. Educ Manage. 2012;64:47-53.

4. Larson RW, Wilson S, Brown BB, Furstenberg FF, Verma S. Changes in adolescents’ interpersonal experiences: Are they being prepared for adulthood? J Res Adolesc. 2002;12(1):31-68.

5. Walburg V, Zakari S, Chabrol H. Rôle duburnout scolaire dans les idées de suicide des adolescents. Neuropsychiatr. 2015; Enfance Adolesc. 2014;62:28-32.

6. Slivar B. The syndrome of burnout, self-image, and anxiety with grammar school students. Horiz. Psychol. 2001;10:21-32.

7. Figueroa A P, Plaza Gómez MT, Riaño 16. HEH. Validación de instrumentos para la medición de Resiliencia y Síndrome de Burnout en estudiantes del programa de Ingeniería Industrial de la Universidad de Córdoba (Colombia). Espacios 2019, 40, 30.

8. Slivar B. The syndrome of burnout, self-image, and anxiety with grammar school students. Horiz. Psychol. 2001;10:21-32.

9. Meylan N, Doudin PA, Curchod-Ruedi D, Antonetti JP, Gaspoz DG, Pfülg L, et al. Burnout scolaire et consommation de substances: Une étude exploratoire chez des adolescents « tout-venant » Neuropsychiatr. Enfance Adolesc. 2015;63:238-243.

10. Zakari S, Walburg V, Chabrol H. Étude du phénomène d’épuisement scolaire, de la dépression et des idées de suicides chez des lycéens français. J. Thérapie Comport. Cogn. 2008;18:113–118.

11. Fiorilli C, Galimberti V, De Stasio S, Di Chiacchio C, Albanelle O. School Burnout Inventory with Italian students of high school. [accessed on 27 July 2021] ; Psicol. Clin. Dello. Svilupp. 2014; 18:403–424. Available online: https://www.rivisteweb.it/doi/10.1449/78365.

12. Arbabfarbou A, Hashemi SM, Sharif MR, Haji Alizadeh K, Yarmohammadzadeh P, Feyzollahi Z. The relationship between sleep quality and social intimacy, and academic burn-out in students of medical sciences. Glob. J Health Sci. 2015;8:231–8.

13. “Welcome to Bharatpur Metropolitan City i Bharatpur Metropolitan City”. Bharatpurmun.gov.np. Retrieved 2020-12-22.

14. Huan VS, Yeo LS, Ang RP, Chong WH. The influence of dispositional optimism and gender on adolescents’ perception of academic stress. Adolescence. 2006;41:533–46.

15. Campos JADB, Carlotto MS & Marôco J. 24. Copenhagen Burnout Inventory – Student Version: Adaptation and Transcultural Validation for Portugal and Brazil. 2012;26(1):87-97.

16. Campos JADB, Carlotto MS, Marôco J. Copenhagen burnout inventory - student version: adaptation and transcultural validation for Portugal and Brazil. Psicologia Reflexao e Critica. 2013;26(1):87–97.

17. Bolatov AK, Smailova DS, Zhorokpayeva B, Smallova DS, Seisembekov Tz. Adaptation and validation of the Russian version of the Oldenburg burnout inventory among medical students. Nauka i Zdravoookhranie [Science & Healthcare]. 2021;23(2):133–9.

18. Bolatov AK, Seisembekov Tz, Askarova AZh, Igenbayeva B, Smallova DS, Hossein H. Psychometric properties of the copenhagen burnout inventory in a sample of medical students in Kazakhstan. Psych Rus State Art. 2021;14(2):15–24.

19. Borritz M, Ruggulies R, Villadsen E, Mikkelsen OA, Kristensen TS, Bjornar JB. Burnout among employees in human service work: design and baseline findings of the PUMA study. Scand J Pub Health. 2006;34(1):49–58.

20. Taber KS. The use of cronbach’s alpha when developing and reporting research instruments in science education. Res Sci Educ. 2018;48(6):1273–1293.

21. Kristanto T, Chen WS, & Thoo Y Y. Academic burnout and eating disorder among students in Monash University Malaysia. Eating Behaviors, 2016;22, 96-100.

22. Farina E, Ornaghi V, Pepe A, Fiorilli C and Grazzani I. High School Student Burnout: Is Empathy a Protective or Risk Factor? Front. Psychol. 2020;11:897.

23. Fiorilli C, Capitello T G, Barni D, Buonomo I, and Gentile S. Predicting adolescent depression: the interrelated roles of self-esteem and interpersonal stressors. Front. Psychol., 2020; 10.

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Data Availability: Data will be available upon request to corresponding authors after valid reason.