

Research Article

The Influence of Sleep Problems on Burnout and Academic Performance of Students in Community Development Training Institutes in Tanzania

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Abstract

This article examined the influence of sleep problems on academic burnout and academic performance of 640 students in Community Development Training Institutes (CDTIs). Burnout has been increasingly a psychological, health and educational concern. Mixed findings have been reported by past studies on this topic. While on one side negative relationships have been reported, on the other hand, results have been reporting no or positive relationship between sleep problems and both burnout and academic performance. This study was an attempt to contribute to the debate through three specific objectives namely; to identify academic burnout and its perceived sources among college students; identify sleep problems among college students; and explain academic performance from academic burnout and sleep problems among college students. Data were collected using one general questionnaire, composed of The Maslach Burnout Inventory-Student Survey (MBSS) for measuring academic burnout, the Sleep Quality Scale (SQS) for measuring sleep problems, and a section inquiring demographic and personal information, such as sex, age, employment status, marital status and level or year of study. Data were descriptively analyzed using Statistical Package for Social Sciences (SPSS). To explain academic performance from academic burnout and sleep problems, logistic Regression Analysis was performed. Results indicated that Academic Burnout was explained by the year of study, sleep problems; and perceived sources of academic burnout such as review time and examination/tests. Further, while academic burnout did not explain academic performance in terms of semester GPA, sleep problems did. It was concluded that both academic burnout and sleep problems are prevalent among college students in Tanzania. Further the perceived sources of academic burnout by students are not necessarily the real factors explaining academic burnout of the college students. It was further concluded that sleep problems and year of the study determine both academic burnout and academic performance. Practical implications are discussed with recommendations to both students and colleges administrations made.

Keywords

Sleep Problems, College Students, Academic Performance, Sleep Quality, Burnout

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1. Introduction

1.1. The Concept of Burnout

Burnout is a psychological disorder characterized by emotional exhaustion, feelings of helplessness, depersonalization (cynicism), negative attitudes towards work and life, and reduction of personal accomplishment [25]. Specific to academic context, apart from experiencing emotional exhaustion, cynical evaluation toward others and their studies, a person with burnout also experiences feelings of inability to achieve academic goals [35]. Burnout as measured by Maslach's MBI-GS under diverse contexts has been understood as a construct constituted of three domains, namely; Emotional Exhaustion (EE) Cynicism (CY) Personal Accomplishment (PA). According to Maslach [26] a person experiencing Emotional Exhaustion undergoes feelings of being depleted of emotional resources, representing the basic individual stress component of the syndrome. EE can lead a person to mood swing expressed by feelings of anger and irritability, anxiety, apathy, failure, lack of motivation, pessimism and hopelessness. It can also involve thinking difficulties that can be expressed by confusion, difficulty of concentration, forgetfulness, lack of imagination and loss of memory. In addition, emotionally exhausted individual can experience difficulty falling asleep or staying asleep at night and thus, might oversleep in the morning. Depersonalization, also referred to as cynicism, is a representation of interpersonal component of burnout that involves negative, cynical or excessively detached responses to fellow workers or students on a personal or emotional level expressed by social withdrawals from others and increased rates of absence from work. The third component of burnout, Personal Accomplishment (PA) is a representation of self-evaluation component of burnout, that involves feelings of reduced competence and productivity and to a lowered sense of efficacy. It can be manifested by lack of enthusiasm in work and personal life, low self-esteem, missed deadlines and poor work performance [32].

1.2. Plausible Explanations of Burnout

There are several explanations on causes and how burnout occurs and develops. Some of the explanations worth mentioning are found in the social cognitive theory, social exchange theory, organizational theory, structural theory, job demands-resources theory, and emotional contagion theory [11]. According to social cognitive theory, the development and evolution of burnout originate from variation in individual's self-efficacy, self-confidence and self-concept. As one doubts one's ability and potentials to execute one's daily professional tasks and goals as well as those of the organization, one develops professional efficacy crisis. Social cognitive theorists believe that professional efficacy crisis is facilitated by circumstances such as past failures or negative experiences, lack of role models who successfully overcame sim-

ilar negative experiences, lack of external reinforcement for the work done, lack of feedback and the difficulties experienced in work [20, 11]. Social exchange theory holds that burnout results from one's perceptions of imbalance between one's efforts and contributions made and the rewards one receives out of the work (lack of reciprocity), which may occur with service users, clients, fellow students, colleagues, supervisors, and organizations [34]. Social exchange theorists believe that burnout can be precipitated by significant interpersonal demands necessary in dealing with clients leading to the consumption of professionals' emotional resources. Thus, depersonalization or cynicism is a defense mechanism against contact with the source of discomfort, which ultimately leads to low personal fulfillment [11].

To the organizational theorists, burnout results from a combination of one's inadequate coping strategies and organizational as well as work stressors [13, 7]. According to the organizational theory, organizational stressors such as ambiguity of the tasks or work overload triggers a decrease in organizational commitment. Such a decrease in commitment to the organization is equated to cynicism and depersonalization, which leads to a feeling of low self-fulfillment resulting into emotional exhaustion [13]. Another explanation, the Demands-resources theory argues that burnout is a property of variation between demands and available work resources. Physical and mental exhaustion is precipitated by failure to recover from inadequate demand of work resources such as work overload, emotional labor, time pressure or interpersonal conflicts [3]. The view of Structural theory maintains that one develops burnout as a response to unmanaged prolonged chronic job stressors. The theory argues that "When the coping strategies initially employed are not successful, they lead to professional failure and to the development of feelings of low personal fulfillment at work and emotional exhaustion. Faced with these feelings, the subject develops depersonalization attitudes as a new form of coping. In turn, burnout will have adverse consequences both for the health of individuals and for organizations" [11]. Lastly, the theory of emotional contagion views burnout as a result of shared beliefs and emotions developed during social interactions in the work groups. As people share similar work experiences and situations, they also share the same emotions such as sadness, fears, and exhaustion [15].

Sharifi, et al [36] systematically reviewed 12 studies on the epidemiology of burnout and found no study that established a causal relationship in their methodologies. Neither did any of the same examined intervention and prevention strategies to burnout. However, some factors associated with burnout have been put forward. For instance, Liu *et al.* [19] conducted a cross-sectional study of 22,983 students and found out that male students had higher burnout scores than their counterpart females; upper-grade than lower-grade students scored higher in the Maslach Burnout Inventory-Student Survey (MBI-SS); while students who reported smoking scored higher in burnout than their non-smoking counterparts. In China, Song, et al.

[37] conducted a cross-sectional study in a sample of 206 students to investigate the relationship between classroom digital teaching and students' academic burnout and found a positive relationship between the two variables. Informed by the Demands-resources theory, it was assumed here that among college students, academic burnout might be a property of the variation between the demands such as attending lecturers, gaining professional skills, passing tests and examinations reviews time etc and how students perceived these as stressors, year of study, and sleep problems experiences; and available work resources.

1.3. Burnout and Academic Performance

Burnout has been increasingly a psychological, health and educational global concern. Past studies have been reporting indicate mixture results. While on one side negative relationships have been reported, on the other hand, results have been reporting no relationship. For instance, a review and meta-analysis study by Abraham et al [1] report 56.3% global prevalence rate of high emotional exhaustion (EE) and 55.3% for high cynicism (CY) and 41.8% for low personal accomplishment (PA). Research has also established relationship between burnout and human performance in various fields. For instance, Ilic and Illic [17] reports an association between burnout and academic performance among medical students in Serbia. Similarly, in their meta-analysis study of 29 literature (N = 109,396) and 89 effect sizes, Madigan and Curran [22] found a negative relationship between burnout and academic performance ($r = -.24$). In Kenya, Oyoo, et al [28] explored the relationship between academic burnout and academic performance of 714 secondary school students using the Maslach Burnout Inventory Survey and found low but significant inverse relationship ($r = -.24$). Duru and Balkis [10] examined the relationships among burnout, academic performance and self-regulation among 383 undergraduate students in Turkey and found negative relationship between academic performance and burnout. Ghadampour, et al [12] investigated the relationship between burnout academic performance of undergraduate students studying medical sciences in a sample of 335 found a low negative relationship ($P < 0.001$ $r = -.17$, $P < 0.01$). Similarly, Pouratashi [30] investigated the relationship between academic burnout and academic performance of 247 agriculture students in Iran and found negative relationship. On the other hand, March-Amengual et al [24] investigated the relationship between burnout and academic performance in the sample of 506 undergraduate students the Maslach Burnout Inventory-Student Survey (MBI-SS) and found no relationship. Generally, most studies have been reporting negative relationship between burnout and academic performance.

1.4. Sleep Problems and Academic Performance

Grimes [14] found a link between sleep problems with

academic performance. According to Kocak, et al [16] psychological characteristics including sleep problems have significant negative effects on academic performance, calling for special attention without which academic performance in the colleges cannot be improved. It is generally agreed that people experiencing sleep problems have also difficulty paying attention, focusing, as well as slow in responding [41]. While experiences of normal sleep hours of sleep have been reported to strengthen brain synaptic connections, the two are crucial in developing activeness of cognition, memory, and attention span; all of which are central to learning [27]. Previous studies addressing the relationship between sleep problems and academic performance have been reporting either negative [4, 23, 27, 5] or no [39, 29, 18] correlations between sleep problems and academic performance. Some studies have also reported positive relationships. For instance, Zhang, et al [43] reports severe sleep disturbances enhancing academic performance in China. These mixed findings on the topic in different samples implies a call for further studies in different contexts due to the fact that worldwide, there has been a call to delay the time to start studies in schools so as to increase sleep time for students. Implementation for this demand needs empirical justification before policy makers are convinced to reschedule study time. A study by Stormark, et al [38] supports an association between sleep problems in children and academic performance and calls for further studies leading to the establishment of preventive measures of sleep problems. Due to the fact that usually learning outcomes and school performance are measured by tests and examinations, demanding cognitive processes to reach the expected responses, it is imperative to further explore the extent and context into which academic performance can be affected by sleep problems and when it does not.

1.5. The Present Study

While most studies have been reporting bivariate investigation of the variables related to burnout and academic performance or sleep problems and academic performance, this study surveyed academic burnout and its perceived sources and sleep problems in a single study to explore their influence on academic performance. The study was guided by three specific objectives namely; identify academic burnout and its perceived sources among college students; identify sleep problems among college students; and explain academic performance from academic burnout and sleep problems among college students.

2. Methodology

2.1. Respondents

A total sample of 640 Diploma students studying Community Development program (57.8% Females, 42.2% males; age 18 to 47 years (M = 21.92, SD = 3.39) from 4 Community

Development Training Institutes in Tanzania. Respondents were composed of 17.8% year I, 66.1% Year II, and 16.1% Year III.

2.2. Measures

One general questionnaire was employed in this study. The questionnaire included The Maslach Burnout Inventory-Student Survey (MBSS) for measuring academic burnout, the Sleep Quality Scale (SQS) [42] for measuring sleep problems, and a section inquiring demographic and personal

information, such as sex, age, and level or year of study. Internal consistencies (α) were $\alpha = 0.67$ for emotional exhaustions, $\alpha = 0.72$ for academic efficacy, and $\alpha = 0.76$ for cynicism. For the SQS, although the initial evaluation of the psychometric properties of SQS reported a good internal consistency of $\alpha = 0.92$ [43], In this study, the internal consistency reached $\alpha = 0.85$, which was judged adequate since it was above the Kaizer’s recommended value of 0.6. The measure of academic performance was a semester Grade Average Performance (GPA), which was traced in the colleges’ academic records.

3. Findings

3.1. Identify Academic Burnout Among College Students

Table 1. Burnout among College Students.

Domain	Item	Response							
		Never		Seldom		Sometimes		Usually	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
Emotional Exhaustion	I feel emotionally drained by my studies	460	71.9	135	21.1	33	5.2	12	1.9
	I feel used up at the end of a day at school	272	42.5	205	32.0	85	13.3	77	12.0
	I feel burned out from my studies	325	50.8	186	29.1	73	11.4	56	8.8
	I feel tired when I get up in the morning and I have to face another day at the college	154	24.1	261	40.8	137	21.4	87	13.6
	Studying or attending a class is really a strain for me	338	52.8	183	28.6	71	11.1	44	6.9
Cynism	I have become less interested in my studies since my enrollment at the college	268	41.9	151	23.6	125	19.5	96	15.0
	I have become less enthusiastic about my studies	333	52.0	184	28.7	87	13.6	36	5.6
	I have become more cynical about the potential usefulness of my studies	222	34.7	174	27.2	145	22.7	97	15.2
	I doubt the significance of my studies	385	60.2	108	16.9	78	12.2	69	10.8
Academic Efficacy	I can effectively solve the problems that arise in my studies.	79	12.3	161	25.2	136	21.3	264	41.3
	I believe that I make an effective contribution to the classes that I attend	102	15.9	92	14.4	134	20.9	311	48.6
	In my opinion, I am a good student	84	13.1	58	9.1	128	20.0	370	57.8
	I have learned many interesting things during the course of my studies	80	12.5	72	11.3	195	30.5	291	45.5
	I feel stimulated when I achieve my study goals	96	15.0	115	18.0	190	29.7	239	37.3
	During class I feel confident that I am effective in getting things done.	60	9.4	83	13.0	150	23.4	346	54.1

In total, 40.9% of respondents reported high emotional exhaustions, 52.8% low academic efficacy, and 35.8% high cynicism.

3.2. Perceived Source of Burnout Among College Students

Table 2. Perceived Stressors/Sources of burnout (N=640).

Perceived Source of Burnout	Ranking			
	Low		High	
Perceived Source	Freq.	%	Freq.	%
Tests/examinations	315	49.2	325	50.8
Large amount of contents to be learnt	302	47.2	338	52.8
Getting poor marks	271	42.3	369	57.7
Lack of time to review what have been learnt	281	43.9	359	56.1
Need to do well (self-expectation)	291	45.5	349	54.5
Falling behind in reading schedule	276	43.1	364	56.9
No enough skills to practice Community development profession	278	43.4	362	56.6
Heavy workload	309	48.3	331	51.7
Having difficulty understanding the content	319	49.8	321	50.2
Unable to answer the questions from the teachers	305	47.7	335	52.3

As indicated in Table 1, 57.7% ranked ‘getting poor marks’ high meaning that they perceived it as the most source of burnout followed by falling behind their reading schedule (56.9%), while having difficulty to understand the taught content was the least perceived source of burnout (50.2). Analysis using Logistic Regression revealed that year of study ($P<0.003$), sleep problems ($P<0.01$), and review time ($P<0.03$) uniquely explained emotional exhaustion. While year two students were 2 times more likely to report emotional exhaustion than year one students, year three students were 1.9 times more likely to report emotional exhaustion than year two students. Also, students who reported sleep problems were 1.6 times more likely to report emotional exhaustion than their counterparts who reported no sleep problems. Lastly, students who ranked review time as high source of their burnout were 0.7 more likely higher to report emotional exhaustion than their counterparts who ranked it as a low source of burnout.

Regarding academic efficacy, two factors uniquely ex-

plained low academic efficacy, namely; year the study and tests/examinations. While tests/examinations were the strongest predictor ($P<0.005$), recording an odds ratio of 1.11 and 1.59, year of study followed ($P<0.005$) that recorded an odds ratio of 1.999. This interprets that while year II students were 1.11 times more likely to report low academic efficacy than their counterparts in Year I, year III were 1.9 times more likely to report low academic efficacy than their counterparts in year II. In addition, results reveal that students who ranked tests/examination as a high stressor were 1.56 times more likely to report low academic efficacy than their counterparts who reported tests and examinations as a low stressor when all other factors in the equation were controlled for. It was also found that sleep problems uniquely explained cynicism ($p<0.001$), recording an odds ratio of 2.06. This means that students who reported high sleep problems were about 2 times more likely to report high cynicism than their counterparts who reported low or no sleep problems when all other factors in the equation were kept under control.

3.3. Identify Sleep Problems Among Community Development College Students

Table 3. Sleep Quality among College Students.

Items	Responses							
	Few/No		Sometimes		Often		Almost Always	
	<i>Freq.</i>	<i>%</i>	<i>Freq.</i>	<i>%</i>	<i>Freq.</i>	<i>%</i>	<i>Freq.</i>	<i>%</i>
I have difficulty falling asleep	4	.6	341	53.3	116	18.1	179	28.0
I fall into a deep sleep	252	39.4	157	24.5	135	21.1	96	15.0
I wake up while sleeping	216	33.8	137	21.4	168	26.3	119	18.6
I have difficulty getting back to sleep once I wake up in the middle of night	247	38.6	130	20.3	156	24.4	107	16.7
I wake up easily because of noise	226	35.3	141	22.0	142	22.2	130	20.3
I toss and turn	232	36.3	136	21.3	145	22.7	127	19.8
I never go back to sleep after awakening during sleep	255	39.8	136	21.3	150	23.4	99	15.5
I feel refreshed after sleep	196	30.6	104	16.3	164	25.6	175	27.3
I feel unlikely to sleep after sleep	263	41.1	128	20.0	140	21.9	109	17.0
Poor sleep gives me headaches	189	29.5	122	19.1	155	24.2	174	27.2
Poor sleep makes me irritated	159	24.8	141	22.0	173	27.0	166	25.9
I would like to sleep more after waking up	254	39.7	129	20.2	136	21.3	119	18.6
My sleep hours are enough	217	33.9	110	17.2	161	25.2	151	23.6
Poor sleep makes me lose my appetite	281	43.9	119	18.6	131	20.5	108	16.9
Poor sleep makes hard for me to think	169	26.4	147	23.0	164	25.6	159	24.8
I feel vigorous after sleep	137	21.4	145	22.7	161	25.2	195	30.5
Poor sleep makes me lose interest of work and others	190	29.7	154	24.1	156	24.4	137	21.4
My fatigue is relieved after sleep	136	21.3	133	20.8	176	27.5	195	30.5
Poor sleep causes me to make mistakes at work	210	32.8	131	20.5	180	28.1	116	18.1
I am satisfied with my sleep	171	26.7	134	20.9	172	26.9	162	25.3
Poor sleep makes me forget things more easily	216	33.8	149	23.3	148	23.1	125	19.5
Poor sleep makes it hard for me to concentrate at work	193	30.2	152	23.8	162	25.3	133	20.8
Sleepiness interferes with my daily life	231	36.1	145	22.7	155	24.2	107	16.7
Poor sleep makes me lose desire in all things	188	29.4	137	21.4	186	29.1	128	20.0
I have difficulty getting out of bed	207	32.3	139	21.7	155	24.2	138	21.6
Poor sleep makes me easily tired at work	195	30.5	138	21.6	165	25.8	142	22.2
I have a clear head after sleep	140	21.9	133	20.8	143	22.3	224	35.0
Poor sleep makes my life painful	190	29.7	143	22.3	157	24.5	148	23.1

Data in Table 3 indicates diverse distribution of the responses in each item of the SQS. For further analysis and

meaningful conclusion, data were tallied, and entered in the logistic regression analysis. The model as a whole explained

between 24.2% (Cox and Snell R square) and 32.3% (Nagelkerke R squared) of the variance in sleep problems, and correctly classified 74.5% of respondents with sleep problems. Surprisingly, only 13.1% (84) of the respondents reported that they were not waking up until morning after sleep. Out of those who reported waking up in the midst of sleep, 33.1% reported waking up twice per night, while 23% reported

waking up more than thrice per night. Regarding in-bed pre-sleep activities, most respondents reported the use of electronic devices such as watching TV, charting via phone and using laptops, which all together amounts to about 264 (41.25%) followed by 213 (33.3%) who reported reading class notes and books.

3.4. Explaining Academic Performance from Academic Burnout and Sleep Problems

Table 4. Variables in the Equation.

	B	S. E.	Wald	df	Sig.	Exp (B)	95% C. I. for EXP(B)	
							Lower	Upper
Year of Study			19.054	2	.000			
Year of Study	1.026	.255	16.177	1	.000	2.790	1.692	4.600
Year of Study	1.273	.316	16.200	1	.000	3.573	1.922	6.643
Sex (1)	-.031	.171	.033	1	.857	.970	.694	1.355
Sleep problems	.407	.175	5.433	1	.020	1.503	1.067	2.117
Test/Examinations	-.186	.171	1.188	1	.276	.830	.594	1.160
Review Time	.282	.175	2.607	1	.106	1.326	.941	1.867
Need to do well (Self-expectation)	-.080	.174	.213	1	.645	.923	.656	1.298
Emotional Exhaustion	-.273	.179	2.345	1	.126	.761	.536	1.080
Academic Efficacy	.088	.172	.262	1	.609	1.092	.779	1.530
Cynism	.042	.182	.052	1	.820	1.042	.729	1.490
Constant	-1.054	.314	11.251	1	.001	.348		

All six factors (year of study, Sex, sleep quality, test/examinations, review time and need to do well) were assessed using Direct Logistic Regression Analysis on the likelihood that college students would report low academic efficacy. It was found that the tested set of variables were statistically significant, $\chi^2(8, N = 640) = 11.68, p > 0.05$, indicating that the model distinguished between respondents with poor from those with high academic performance by 6.5% (Cox and Snell R square) and 8.7% (Nagelkerke R squared) of the variance in academic efficacy; classifying 58.4% of respondents with poor academic performance. Two factors uniquely explained academic performance, namely; year the study and sleep problems. While year III of study was the strongest predictor ($P < 0.01$), recording an odds ratio of 3.57; interpreted that year III students were 3 times more likely to

score higher in their semester GPA than year II students. Similarly, being in year II followed ($p < 0.01$) recording an Odds Ratio of 2.79; meaning that year II students were two times more likely to score higher in semester GPA than first year students. Sleep problems was the second predictor of academic performance ($P < 0.02$), which recorded an Odds Ratio of 1.067; meaning that students who reported sleep problems experience were 1.67 more likely to score low GPA in semester examinations than their counterparts who did not report experiencing sleep problems. Demographic factors such as age, sex, marital status, and employment status did not uniquely explain both academic burnout and academic performance although sex explained sleep problems. The findings of this study can be summarized in Figure 1.

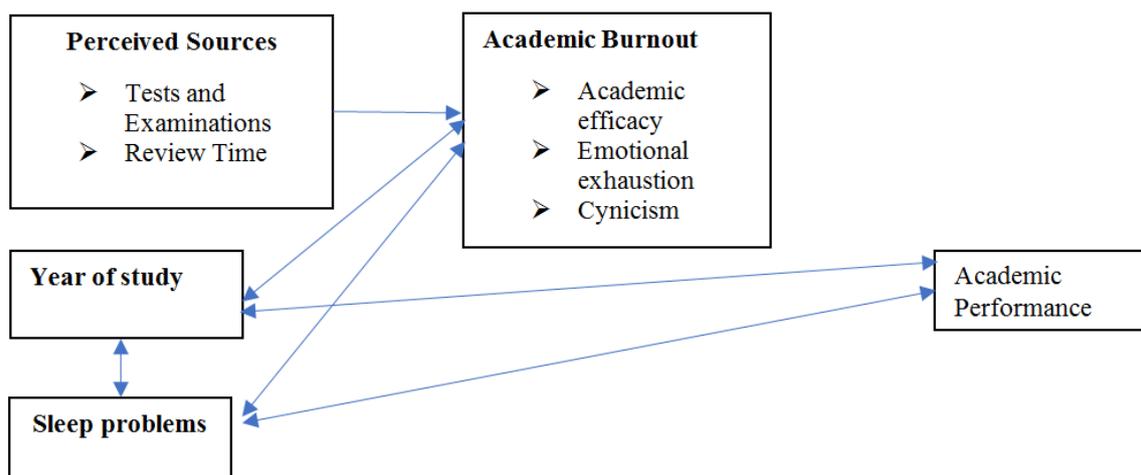


Figure 1. Summary of the Results.

4. Discussion

4.1. Sources of Academic Burnout

Academic burnout has been explained by the year of study, sleep problems; and perceived sources of academic burnout such as review time and examination/tests. On the other hand, while academic burnout did not explain academic performance in terms of semester GPA, sleep problems did. It has been found that the higher the score in sleep problems, the lower the semester GPA. The present results have revealed that level or year of study and sleep problems are associated with academic burnout in a similar manner with previous studies [36, 19]. These results are in line with other past results that have established negative relationships between sleep problems and cognitive functions, learning, memory, reaction time, mood as well as academic performance [4, 31, 23, 27, 5, 21, 40]. These results are also similar to the previous studies [33, 8, 9] reporting no relationship between burnout and demographic variables such as age, sex, marital status, and employment status. Factors that have explained academic burnout such as year of study, sleep problems; as well as perceived sources of academic burnout; namely: review time and examination/tests are critical in the sense that they might be universally relevant beyond professional, age, sex, or cultural boundaries. This observation is similar to the report that burnout seems to appear in all career stages and is related to a stressful work situation [9, 33]. The quest deserving discussion then is whether or not college students experience stressful situations leading to burnout prevalence among them. Of course, they do. This can be evidently inferred from the results of this study indicating high prevalence of sleep problems, which also explained academic burnout. Interestingly, the perceived sources of burnout by students were not necessarily the real sources of academic burnout of the surveyed sample. While factors such as getting poor marks,

falling behind reading schedule, and lack of skills to practice Community development profession were the top most ranked sources of academic burnout by the respondents, none of these uniquely explained academic burnout but rather sleep problems and year of the study. In practice, college students have difficulty achieving daily eight (8) hours of sleep given the engaging nature of daily schedules they have as students. For instance, students in the colleges formerly commence studies at 07: 00 hours and continue the entire day until 18: 00 hours. Apart from the lectures, there are compulsory take home group and individual assignments, seminar presentations, project reports, timed tests and end of semester examinations. All these are necessary for their continuous assessment for the accomplishments of almost 9 modules.

Amidst these tight schedules and demands, most students are constantly in need to prove their abilities and worthy of expected academic performance and position. Such expectations might be linked by students' past history known to the student's parents and siblings at home as well as friends, who might be exerting more pressure to the student to either maintain or change. It might be as well be linked by student's future plans and worries of the future success or failures. In addition to these pressures are the inevitable social interactions and relationships surrounding the student whether physically or via the new technologies such as mobile smart devices leading to the minimized secrecy. Given the established malleability nature of burnout [11], intervention studies and plans need to be directed to the wholistic nature of the student life from systemic to individual factors. For example, colleges need to regularly assess burnout among both students and working staff to ensure their wellbeing for effective institutional academic performance. Thus, policy intervention might be very important with regard to the daily timing in starting and finishing studies in the colleges. It might also include considering the review of the curricula to minimize the working load that might force students to extend their working hours to compromise sleeping hours. This might be well achieved if collaboration is forged 'between public

health and education sectors to have harmonized policies appropriately designed to intervene and thus, improve quality of sleep among both men and women in the colleges' [18].

These results are also in line with the arguments of the organizational theory as well as those of the Demands-resources theory. The findings that sources of academic burnout (year of study, sleep problems, examinations/tests and preparation time) are qualifying as both organizational demands and individuals' resources. This is similar to work overload triggering a decrease in organizational commitment in the organizational theory, work overload equated to cynicism and depersonalization, which in turn leads to a feeling of low self-fulfillment resulting into emotional exhaustion.

4.2. Sleep Problems and Academic Performance

It has been found here that sleep problems explained academic performance in terms of semester GPA. These results are different from other results that have reported no [39, 29, 18] and positive [43] relationships between sleep problems and academic performance. This makes sleep problem as a critical issue to be addressed if improvement of academic performance is to be realized. This implies a need to come up with the best way to develop intervention programs intended to lessen sleep problems in the colleges. This could minimize sleep problems while at the same time improving students' academic performance. However, it is worth noting that there is inconsistency in research regarding the relationship between quantitative sleep in terms of the number of sleeping hours and academic performance since some studies [2] have reported U-shaped and inverted U-shaped relationships between sleep problems and academic performance suggesting that students with sleep problems might perform well in academics and those with good sleeping record can have poor academic performance. While research on prevention and intervention programs are still needed in Tanzania, some studies have argued that sleep problems are not static and can be modified; suggesting development of policies that aim at reducing the number and intensity of the module to be learned and reducing the study time [6, 18].

5. Conclusions and Recommendations

This article examined the influence of sleep problems on academic burnout and academic performance of students in Community Development Training Institutes (CDTIs). The study was guided by three specific objectives namely; to identify academic burnout and its perceived sources among college students; identify sleep problems among college students; and explain academic performance from academic burnout and sleep problems among college students. Based on the results, it is concluded that both academic burnout and sleep problems are prevalent among college students in Tanzania. In addition, the perceived sources of academic burnout by students are not necessarily the real factors explaining

academic burnout of the college students. It is further concluded that sleep problems and year of study determine both academic burnout and academic performance.

Abbreviations

CDTIs	Community Development Training Institutes
MBSS	The Maslach Burnout Inventory-Student Survey
SQS	Sleep Quality Scale
GPA	Grade Performance Average
SPSS	Statistical Package for Social Sciences

Conflicts of Interest

The author declares no conflicts of Interest.

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