

Accounting student burnout and engagement: The role of major satisfaction in mitigating or enforcing functional and dysfunctional behavior

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ABSTRACT

This study begins by establishing the nature of the debatable relationship between student burnout and engagement in an accounting context and investigates the impact of student major satisfaction as an antecedent factor for accounting student burnout and engagement. Hence, a survey of 280 students was conducted using Maslach Burnout inventory-student survey, Utrecht Work Engagement Scale and the Academic Major Satisfaction Scale for Students. The results partially support the argument that student engagement is independent and is a distinct concept from burnout. Furthermore, student major satisfaction was found to significantly impact both concepts. The results can be important for an appropriate university intervention in mitigating or enforcing these behaviors.

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1. Introduction

Since first introduced by Freudenberger (1974), it is estimated about 6,000 studies have been published on the topic of ‘burnout’ (Schaufeli et al., 2009). Ten years later, burnout became a widely researched topic which went beyond psychology to prosper in many other fields such as educational studies, medical studies, neuroscience and human resources. Burnout was conceptualized early on by Maslach and her colleagues (Maslach, 1982; Maslach & Jackson, 1981) as a dysfunctional stress syndrome with three-interrelated factors; emotional exhaustion, cynicism and reduced professional efficacy. According to Taris et al. (2017) “emotional exhaustion referred to feelings of being overextended and depleted of one's emotional resources”, whereas cynicism “involves having an indifferent and negative attitude towards others”. Lastly, professional efficacy is “a decline of one's feeling of competence and achievement in one's work”. These three interrelated factors were formulated by Maslach and Jackson (1986) in what is currently known as the Maslach Burnout Inventory (MBI). Hence, MBI is a unified scale that intends to measure burnout among human resource professions. Later on, the scale was deemed to be an effective tool for examining burnout levels in several areas other than services professions. With a slight adjustment to the terms in the (MBI) scale, researchers were able to create more ad hoc versions of burnout for the general public, students, human resource services, human resources for medical personnel and educators’ surveys. In the last two decades or so, another stream of literature in psychology had begun to increase and draw attention to positive psychology. Myers (2000) argues that the number of publications of negative states exceeds that of positive states by a ratio of 14:1. This led to the development of an antipode state of burnout known as work engagement. Hence, work engagement has been developed as a positive, fulfilling, affective-motivational state of work-related well-being. Despite the heavy debates surrounding the relationship between burnout and engagement, there is an established consensus about the negative psychological outcome of burnout and the positive

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psychological outcome of engagement. Perceived early on as an antipode to burnout, work engagement was also conceptualized by three-interrelated factors; vigor, dedication and absorption. According to Schaufeli et al., (2002a) vigor represents a high energetic level and mental resilience facet of working. Dedication is the sense of self importance, self-esteem, eagerness, inspiration, self-worth, and challenge. Finally, absorption is characterized by being fully concentrated and joyfully absorbed in the work. Consequently, the person gets carried away by the work without feeling the time passing. Nonetheless, it is also imperative to stress that the relationship between burnout and engagement is still a debatable issue in psychology literature.

The major advances in work burnout and work engagement studies have also captured the educational field's attention. Thus, it has also been shown by a number of studies that college students are prone to high levels of stress during their studies (Suldo et al., 2009). Moreover, some studies in burnout have found that it exerts durable impact whose roots can be found in earlier stages of human life (Dyrbye et al., 2008). This led to the continuing investigation by researchers regarding the existence of both phenomena in schools and universities. Thenceforth, both the Maslach Burnout Inventory-Student Survey (MBI-SS) and the Utrecht Work Engagement Scale for Students (UWES-S) were developed to fill this gap. Despite the plethora of studies which have covered student burnout and student engagement in several educational fields, almost no research has been conducted on accounting literature to investigate these two topics. As a matter of fact, there is an absence of basic theoretical grounds for student burnout and engagement in accounting literature. This indicates a conspicuous gap in the following areas. Firstly, the existence or absence of accounting students' burnout and engagement. Secondly, there is a lack of studies which aim to explore the reciprocal effect between accounting students' burnout and engagement in order to determine the nature of the relationship between these phenomena. Thirdly, the antecedent and outcome factors which stem from accounting students' burnout and engagement should be accounted for. Finally, exploring the possible factors which enhance engagement and/or shun the negative effect of accounting students' burnout should be addressed.

To inform this discussion, the current study has two main objectives. The first is to replicate Schaufeli et al.'s (2002) survey in order to envisage the relation between accounting students' burnout and engagement. The results are expected to provide a more robust ground for future accounting studies which explore these two phenomena on one hand, and to enrich this debatable issue from a behavioral accounting perspective on the other. The second objective is to investigate the impact of accounting students' major satisfaction as an antecedent factor to burnout and engagement. The current study adopted Nauta's (2007) Academic Major Satisfaction Scale for Students (AMSS) to investigate whether this factor may contribute to student burnout and engagement. In seeking to achieve these objectives, 280 accounting students were invited from a single Jordanian university to participate in a computerized survey. The measurement scales were adopted from psychology studies to examine student burnout (MBI-SS), student engagement (UWES-S) and student major satisfaction (AMSS). We performed an independent sample test and ANOVA test to examine the impact of gender, academic standings and age on the study's variables, as well as Pearson Correlation and a linear regression which was used to determine the influence of major satisfaction on student burnout and engagement. Finally, we present some implications of our findings, acknowledge several limitations and identify some potential areas for future research.

The rest of the paper unfolds as follows: literature review and hypotheses development, methodology, descriptive and empirical results, discussion, conclusion, limitations and recommendations for future studies.

2. Literature review and hypotheses development

2.1 Student Burnout

Student burnout is susceptible to unique environmental settings that differ from those of the general public. Student burnout is perceived by psychologists to feel "exhausted because of study demands, having a cynical and detached attitude toward study, and feeling incompetent as a student" (Schaufeli et al., 2002a). Therefore, student burnout is a motivational state which students may encounter during their college enrollment and manifests itself through three interrelated symptoms (exhaustion, cynicism and professional efficacy). In their study, Schaufeli et al. (2002a) developed the MBI-SS which was carefully tailored to reflect a more befitting scale for students. The internal validity for the MBI-SS shows promising results in a broad strand of literature worldwide (Roemer, 2016; Tuominen-Soini & Salmela-Aro, 2014; Wang et al., 2011; Dyrbye, 2008; Jacobs & Dodd, 2003). Hitherto, MBI-SS is perceived by researchers as an ingrained apparatus for measuring student burnout.

Prior literature documents an increased risk of burnout in students. These risks come in tandem with many dysfunctional behaviors such as a decrease in student performance (Schaufeli et al., 2002a), student attrition and commitment (Neumann et al. 1990), lower self-esteem and personal accomplishment (Robins et al., 2015; Yang and Farn, 2005), hindering effective coping (Gan et al., 2007), and suicidal thoughts (Robins et al., 2015; Dyrbye et al., 2008). As a matter of fact, studies suggest that burnout can continue from adolescence to young adulthood (Tuominen-Soini & Salmela-Aro, 2014) and may exert durable impact on students' future careers (Dyrbye et al., 2008). It is also worth noting that accounting literature had not contributed yet in this matter. In fact, there is little known about the impact of burnout on accounting students. Moreover, the impact of burnout on the accounting profession is another terra incognita subject. Despite the plethora of studies tackling this issue in other professions, little is known about how the accounting profession responds to burnout. To date, studies suggest that workload stress factors (role ambiguity, role conflict and job-related tension) are antecedents to burnout, causing a higher rate of turnover, dissatisfaction and lower commitments (Forgaty et al., 2000; Guthrie and Jones, 2012; Chong and Monroe, 2015).

In addition, the locus of control of an auditor was found to moderate the effect between stress factors and burnout (Hsieh and Wang, 2012). The impact of the audit busy season on auditor burnout was also scrutinized by prior literature. Findings suggest that burnout levels increase during the busy season due to the extra work-load (Persellin et al., 2014). In fact, Sweeney and Summer (2002) suggest that burnout reached levels that were rarely reported in audit research during the busy season. Abuaddous et al. (2018) examined the effect of burnout during the busy season on auditors' JDM regarding clients' internal control. They found that burned out auditors tend to avoid risky decisions as a coping mechanism in order not to burden themselves with extra stress.

Overall, there is a general consensus about the existence of burnout syndrome within the accounting practice accompanied by its negative effect. To our knowledge, no prior studies have examined this syndrome in the context of accounting students and whether burnout has its roots in academia. Therefore, burnout is considered as a serious syndrome which should be contemplated in an accounting educational setting. In this respect, it is of paramount significance to examine this syndrome in accounting students in order to understand its severity and to investigate factors which can mitigate it.

2.2 Student Engagement

In the other spectrums, engagement is perceived by physiologists as a positive factor impacting human behaviors. Schaufeli et al. (2002a) defined engagement as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption". In college environments, a more ad hoc scale more suitable for student engagement has supplanted the general one (Schaufeli et al., 2002a). The UWES-S has been bolstered with positive psychometric properties in various studies (e.g., Schaufeli et al., 2002a, b; Loscalzo, Y., & Giannini, 2019; Tayama et al., 2019; Cadime et al., 2016). In a nutshell, academic activities were perceived as "work" due to its involvement in a structural, goal-directed activity with a coercive nature (Tayama et al., 2019). Student engagement was found to be positively related to academic performance (Salanova et al., 2010; Salmela-Aro & Upadaya, 2012; Schaufeli et al., 2002; Tuominen-Soini & Salmela-Aro, 2014), student well-being (Cadime et al. 2016), and reduction in substance abuse (Bugbee et al., 2019). Although extensive literature dating from the 2000s has investigated employees' engagement in various professions, very few studies have been conducted on accounting literature exploring this effect and considered its unique settings. Whitten (2016) investigated factors that predict work engagement among female accountants. Notwithstanding the low prediction power found in the study, evidence suggests that mentoring female accountants has an impact on their working engagement.

Despite its intuitive appeal, student engagement is a hazy concept compared to burnout. For example, a broad strand of accounting literature has focused on student engagement as a sine qua non for academic achievement (Buckless & Kathy Krawczyk, 2016; Precourt & Gainor, 2019). Meanwhile, other literature has focused on examining different teaching techniques that are able to boost student engagement (Stone et al., 2014; Gallagher, 2015; Miley & Read, 2019; Taylor et al., 2018; Kokina & Juras, 2017). In both strands, student engagement espouses different connotations which can create diversity in the concept and limit any probing attempted towards the concept. On the other hand, psychology literature has classified student engagement into three categories; emotional, behavioral, and cognitive engagement. These factors predict different relationships on academic performance and educational aspiration (Wang & Eccles, 2011). In this sense, the current study focuses on the (behavioral/motivational) state of student engagement. Burnout is also categorized as an emotional state but with a negative outcome. In fact, the relationship between burnout and engagement is still debatable in psychology. Hitherto, burnout and engagement has been dichotomized by two schools of thoughts. The first suggests that burnout and engagement are the opposites of each other (Maslach and Leiter, 2008; Taris et al. 2017), whereas, the second suggested that engagement is an independent, distinct concept from burnout (Schaufeli et al. 2002 a,b; Schaufeli et al., 2008). Taris et al. (2017) concluded that both concepts overlap with each other and their conceptual and empirical differences should not be overestimated. However, in the accounting context, such a relation was never investigated in the attempt to understand how these two phenomena correlate. This in fact may contribute in narrowing this conspicuous gap for a future attempt in mitigating or enforcing such phenomena.

To inform this debate, this study replicates Schaufeli et al.'s (2002) procedure to examine whether accounting students' burnout (which is measured by the MBI-SS) and accounting students' engagement (which is measured by UWES-S) are independent or opposite concepts. Hence, we speculate the following hypothesis:

H₁: All burnout (exhaustion, cynicism, professional efficacy) and engagement (vigor, dedication, absorption) scales are at least moderately negatively correlated.

2.3 Academic Major Satisfaction

Although many studies have investigated accounting students' satisfaction (Bobe & Cooper, 2018, 2019; Trang et al., 2018), the term major satisfaction is yet another facet of satisfaction that is rarely tackled in the accounting context. In essence, prior studies in that matter have relied on gauging this topic based on students' perceptions of graduate educational experiences. Major satisfaction on the other hand, stems from job satisfaction as they share a similar core (Allen, 1996). Hence, major satisfaction is viewed as an "emotional state" which reflects how much a student likes or dislikes her/his major. A growing

body of research links global job satisfaction with functional and dysfunctional behavior. In this respect, burnout as a dysfunctional stress syndrome is found to negatively correlate with job satisfaction (Fogarty et al., 2000; Fogarty & Kalbers, 2006), whereas, employee engagement positively correlates with job satisfaction (Bakker et al., 2008; Yalabik et al. 2017). From a theoretical perspective, job satisfaction is an antecedent of burnout (Lee & Ashforth, 1996; Yalabik et al., 2017). It is also worth noting that job satisfaction as an antecedent or an outcome for work engagement is still debated. Both schools of thoughts were supported by a broad strand of literature (e.g. Vecina et al., 2012; Yalabik et al., 2013). Yalabik et al. (2017) put forward the following argument to support the antecedent effect of job satisfaction on work engagement. They argued that job satisfaction is an emotional state which is linked to the satiation state, while work engagement is a motivational state which is linked to activation. Hence, job evaluations (i.e. satisfaction) will precede the motivational state (i.e. engagement). Following a similar logic, academic major satisfaction emanates from job satisfaction indicating similar behavioral responses. Hence, our position is that major satisfaction is an antecedent to student engagement and burnout. This analogy has rarely been examined in the academic context, especially in terms of student burnout and engagement. Moreover, almost no research has been conducted on accounting education to investigate the existence of antecedent impact of major satisfaction on student burnout and engagement. To inform this debate, this study relies on Nauta's (2007) academic major satisfaction scale for students (AMSS) in order to measure students' satisfaction of their choice of accounting. Thenceforth, we examine the relationship of major satisfaction as an antecedent to student burnout and student engagement. This study speculates the following two hypotheses:

H₂: There is a significant negative relationship between academic major satisfaction and student burnout.

H₃: There is a significant positive relationship between academic major satisfaction and student engagement.

3. Method

3.1 Participants and procedure

Participants were 280 accounting students from a Jordanian university. Upon receiving ethical approval for the study, students were informed about the survey by their course coordinators and were invited to voluntarily participate. Two computerized laboratories within the faculty of business were reserved for two consecutive sessions. The computerized survey included a brief summary of the study objectives, demographic information, and 35 items on a Likert scale which targeted the study's variables.

3.2 Apparatus/Instruments

As discussed in the previous section, this study focuses on the impact of academic major satisfaction on students' burnout and engagement. Thus, variable measurement tools were adopted from the plethora of psychology studies covering this topic. Burnout manifests itself in a zero to 6 Likert scale. The student burnout form consists of a (15) item scale which examines students' exhaustion, cynicism and professional efficacy. The scale was developed by Maslash and others in lieu of the general Maslash Burnout Inventory Scale (MBI) as it is more related to foreshadowing college students' burnout. Numerous studies have shown that the MBI-Student Survey (MBI-SS) provides a useful and internally consistent tool for measuring student burnout. On the other hand, the student engagement form consists of a 14 item scale which examines the three student engagement factors; vigor, dedication and absorption. Student engagement was examined through the Utrechtwork engagement scale for students (UWES-S) which was also introduced by Schaufeli et al. (2002b). Similar to MBI-SS, the UWES-S has proven to be a suitable tool for predicting student engagement (Roemer, 2016). The combined 29 items in MBI-SS and UWES-S were randomly merged in the survey to avoid response bias (Schaufeli et al., 2002a) and the total score was determined by averaging responses to each factor.

Academic major satisfaction as the dependent variable was measured using the six-item Academic Major Satisfaction Scale (AMSS) which was developed by Nauta (2007). The 6-item scale ranges from 1-5 scores, with the lower score indicating a less satisfied student. The total score was determined by averaging responses to the six items. The *raison d'être* for this concise scale was to establish a global scale for student's major satisfaction. The AMSS shows a robust internal validity in many studies (Sovet et al., 2013; Cox et al., 2016). However, these studies are incomplete insofar as they only covered students in developed countries. In fact, global scales which are established by researchers in developed countries are usually proven to be less valid when tested in developing countries; cultural difference, ethnicity, class, individuality and translation barriers all play their part. Nonetheless, to mitigate some of these factors, this study adopted Brislin's (1970) back-translation technique to overcome language barriers.

3.3 Analysis and Results

Demographic results indicate that one-hundred and seventy (170) participants (60.7%) were females and one-hundred and ten (110) (39.3%) were males. All of the participants share similar (Arab) ethnicity and (29.6%) of them were sophomores, (38.2%) were juniors and (32.1%) were seniors. The students had a mean age of (20.9) years (SD= 1.73).

In addition, we performed an independent sample test and ANOVA test to examine the impact of gender, academic standings and age on the study's variables. In line with our expectations, no significant difference was detected between the demographic factors and student burnout and engagement. Interestingly, sophomore students' responses for major satisfaction showed a significant difference when compared to juniors and seniors' responses (.002, .006) respectively. In this sense, we expect that sophomore students are still in their early enrollment years and their emotional state about their major is not settled yet, unlike junior and senior students who showed consistent responses regarding their satisfaction level.

Table 1
Burnout, engagement and major satisfaction with Gender

Gender	Burnout					Engagement				Major satisfaction			
	N	M	SD	t	Sig	M	SD	t	Sig	M	SD	t	Sig
Male	110	2.80	.883	.420	.675	3.16	1.22	1.76	.078	3.46	.935	.618	.537
Female	170	2.75	1.00			3.42	1.19			3.53	1.01		

Burnout, engagement and major satisfaction with Age													
Age	Burnout				Engagement				Major satisfaction				
	N	M	SD	t	Sig	M	SD	t	Sig	M	SD	t	Sig
>= 21.00	153	2.81	.967	.762	.447	3.33	1.29	.249	.803	3.56	.932	1.03	.304
< 21.00	127	2.72	.948			3.30	1.12			3.44	1.04		

Burnout and academic standings						
LEVEL	N	μ	SD	DF (Between and within groups)	F	Sig
2	83	2.93	1.00			
3	107	2.68	.925	(2,277)	1.635	.197
4	90	2.74	.947			
Total	280	2.77	.958	279		

Engagement and academic standings						
LEVEL	N	μ	SD	DF (Between and within groups)	F	Sig
2	83	3.17	1.24			
3	107	3.30	1.24	(2,277)	1.343	.263
4	90	3.47	1.14			
Total	280	3.32	1.21	279		

Major satisfaction and academic standings						
LEVEL	N	μ	SD	DF (Between and within groups)	F	Sig
2	83	3.20	1.10			
3	107	3.65	.919	(2,277)	5.855	.003
4	90	3.61	.888			
Total	280	3.50	.986	279		

Multiple Comparisons between Major satisfaction and academic standings						
	Mean Difference	Std. Error	Sig	Lower Bound	Upper Bound	
2*3	-.452 [*]	.141	.002	-.731-	-.173-	
2*4	-.408 [*]	.147	.006	-.698-	-.117-	
3*4	.044	.138	.749	-.228-	.317	

*. The mean difference is significant at the 0.05 level.
2= sophomore, 3= juniors, 4= seniors

The Means, Standard Deviation and the P-value for each item were calculated. Burnout is measured by 15 items on the MBI scale and three interrelated factors. All responses significantly varied at (P=.05) across the sample except for the question "I feel worn out at the end of a day at university" which assesses an aspect of exhaustion. The results indicate that students hold a similar opinion regarding this statement. Further, students' engagement was measured by 14 items and three interrelated factors. Students' responses significantly varied at (P=.05) across the sample except for two items. The first was in response to the statement "my studies inspire me" which assesses an aspect of dedication, whereas the second captures their response to the statement "when I am studying, I forget everything else around me" as an aspect of absorption. Finally, major satisfaction was measured by 6 items and the student responses significantly varied at (P=.05) across the sample.

With regards to the reliability coefficient, Cronbach's Alpha test was performed and considered acceptable at (0.7) (Nunnally, 1978). Hence, student burnout's factors; exhaustion, cynicism and professional efficacy show an acceptable level of internal consistency (0.76, 0.805, 0.822) respectively. In a similar fashion, we found the three interrelated factors of student engagement; vigor, dedication and absorption also to fall into an acceptable level (0.86, 0.775, 0.816) respectively. Last of all, major satisfaction also indicates an acceptable level of internal consistency at (0.841). To examine these relationships, Pearson Correlation was performed, while the linear regression was used to determine the influence of major satisfaction on student burnout and engagement. In addition, the analyses were conducted using the Statistical Package for Social Sciences (SPSS). Table 2 depicts the correlations between MBI-SS, UWES-S scales and major satisfaction. Consistent with Schaufeli et al. (2002), the first hypothesis assumed at least a modest negative correlation between all burnout and engagement scales. Moreover, we expect that the three interrelated variables for burnout to negatively correlate with major satisfaction, whereas the other three interrelated factors for student engagement to positively correlate with major satisfaction. In that respect, personal efficacy correlated highly and negatively with vigor, dedication and absorption (-.682, -.761, -.576) respectively. Moreover, cynicism was negatively correlated with vigor and dedication at a low level (-.167 and -.343) respectively whereas absorption

was not confirmed to correlate with cynicism. Our findings also confirm a low and negative correlation between exhaustion and dedication (-.244). Nonetheless, vigor and absorption correlation with exhaustion was not confirmed.

Table 2

Correlations Between Maslach Burnout Inventory–Student Survey (MBI-SS), Utrecht Work Engagement Student (UWES-S) Scales and Major Satisfaction

	EX	CY	PE	VIG	DED	AB
EX	-	-	-	-.100	-.244**	.027
CY	-	-	-	-.167**	-.340**	-.103
PE	-	-	-	-.682**	-.761**	-.576**
VIG	-.100	-.167**	-.682**	-	-	-
DED	-.244**	-.340**	-.761**	-	-	-
AB	.027	-.103	-.576**	-	-	-
SAT	-.336**	-.377**	-.395**	.322**	.501**	.318**

NOTE: VI =Vigor, DE = Dedication, AB = Absorption, EX = Exhaustion, CY = Cynicism, and PE = Professional Efficacy. SAT = Major Satisfaction. ** $p < .05$.

Our findings also detect a significant negative correlation between the three interrelated variables of burnout and the major satisfaction (*exhaustion* = -.336, *cynicism* = -.377, *professional efficacy* = -.395, $p < .001$). On the other hand, students' engagement in relation to the three interrelated factors indicates a significant positive correlation with major satisfaction (*vigor* = .322, *dedication* = .501, *absorption* = .318, $p < .001$). Overall, the Pearson correlation test reveals a diverse range of relations between the studied factors. Student burnout and engagement are mainly related by the strong correlation between professional efficacy and the three factors of engagement, whereas, the correlation of cynicism and exhaustion with the engagement factors are not confirmed. On the other end of the spectrum, both student burnout and engagement show a moderate correlation with major satisfaction indicating that all these factors are responsible for explaining the relationships.

Table (3) furnishes the regression results for the study's second and third hypotheses. As discussed in the previous section, major satisfaction is an antecedent of burnout. Hence, the second hypothesis examines the relationship between student burnout and major satisfaction. The results indicate a significant inverse relationship between student burnout and major satisfaction $F = 98.46$, $p < .001$ and explain 25.9% of the variability in the burnout level.

The third hypothesis examines the relationship between student engagement and major satisfaction. Henceforth, our results indicate a significant positive relationship between student engagement and major satisfaction $F = 62.94$, $p < .001$ and explained 18.2% of the variability in the student engagement level.

Table 3

Regression results for major satisfaction

	F-value	Sig	β		t value		R	R Square	Adjusted-R ²	
			Constant	β	Constant	β				Sig
Burnout	98.46	0.000	4.970	-0.526	31.911	-9.92	0.000	.511	.262	.259
Engagement	62.94	0.000	2.351	0.349	15.126	7.934	0.000	.430	.185	.182

Dependent variable=Major Satisfaction, Independent Variable= Burnout and Engagement

4. Discussion and Conclusion

Consistent with prior literature, our results indicate a superior correlation between professional efficacy and the three interrelated factors of student engagement. As a matter of fact, this is a typical observation espoused from psychology studies as professional efficacy's scale has a positive formulation and conceptual reasons compared to exhaustion and cynicism (Cadime et al., 2016). In simple terms, exhaustion and cynicism both carry negative psychological statements measured in the MBI scale whereas professional efficacy carries positive/motivational statements which are more akin to the factors found in the engagement scale. On the other hand, the cynicism correlation with engagement factors was inconclusive; both vigor and dedication were negatively but weakly correlated with cynicism, whereas, absorption did not show a significant correlation with cynicism. Our findings also indicate an absence of meaningful correlation between exhaustion with the engagement factors especially with vigor and absorption. This result is consistent with prior findings which argue that exhaustion and vigor are not bipolar to one another (Schaufeli et al., 2002; Romer, 2016; Cadime et al., 2016).

To sum up, our findings bolster the claim that student burnout and engagement does not indicate a reciprocal effect. However, the correlation between some burnout and engagement's interrelated factors are inextricably linked in a way that could hinder the conclusion that both concepts are uniquely identified. Moreover, we tend to support Romer (2016) argument about the relationship between student burnout and engagement. First, both measures have different antecedents and consequences.

Second, there is no direct relation between engagement and psychosomatic complaints. Hence, it is worth noting that although our findings are inclined to partially support that student engagement is independent and is a distinct concept from burnout. We share a similar view to Taris et al. (2017) who concluded that both concepts are overlapping and their differences should not be overestimated.

We also document that gender and age are irrelevant when measuring accounting students' burnout, student engagement and academic major satisfaction which consisted with prior findings in various educational contexts (Cadime et al., 2016). The only exception we found is related to academic standing as it was found that sophomore students' responses for major satisfaction showed a significant difference when compared to junior and seniors' responses. One possible explanation we put forward is that the emotional state of sophomore students is still premature at this stage regarding their major. This was evidently clear when junior and senior students showed consistent responses regarding their satisfaction level about their major.

Turning to the results, our second hypothesis speculates that major academic satisfaction for accounting students has a significant negative impact on burnout. Our findings confirm this relation with a prediction power of (25.9%). In addition, all three interrelated factors of burnout were found to moderately correlate with major satisfaction (exhaustion =.293, cynicism=.362, professional efficacy =.431). In this sense, burnout as dysfunctional stress syndrome is found to negatively correlate with academic major satisfaction for accounting students. This finding mirrors a similar behavioral response from employees as their level of burnout was found to correlate with their job satisfaction (Fogarty et al., 2000; Fogarty & Kalbers, 2006). In line with our expectations, the third hypothesis foreshadowed a positive relationship between academic major satisfaction for accounting students and their engagement. Our data supports this assumption with a prediction power of (18.2%). Additionally, all three interrelated factors of engagement are found to moderately correlate with major satisfaction (vigor=.358, dedication =.495, absorption =.356). In general, our results show that major satisfaction for accounting students is deemed to be an effective tool in increasing student engagement. Moreover, the results also support that student engagement resembles employee engagement when suitable measures are utilized for both populations. Overall, our finding suggests that accounting students' burnout and engagement relationship with major satisfaction does not contradict those results found in the working environment. This provides further support for the adopted instruments in the current study.

As in all research, we acknowledge several limitations of this study. The current study's sample consisted of students from the same university who share a similar ethnicity and live in Jordan. Hence, our results should be carefully interpreted for any generalization attempts. Moreover, it is of paramount significance to indicate that MBI-SS and UWS both showed some items with poor psychometric properties when tested in different countries, which resulted in a modified version of these tools (eg. Wickramasinghe et al., 2018; Schaufeli et al., 2002). The current study adopted a self-report survey of students and followed some techniques for controlling common method biases suggested in Podsakoff et al. (2003). However, self-reported data may have been influenced by common methods variance.

Despite these limitations, this study has several strengths. To the best of the authors' knowledge, this is one of the earliest studies in accounting to examine the reliability, validity of the MBI-SS, UWES-S and AMSS in an accounting student context. In addition, we established our unique view from a behavioral accounting perspective regarding the relationship between accounting students' burnout and engagement. Moreover, student satisfaction is a fuzzy and multifaceted concept in accounting literature. This study distinguished and validated a new adopted scale that is able to measure accounting students' major satisfaction in order to observe its effect in other variables. Hence, we detected that major satisfaction exerts a durable impact on accounting students' well-being. Further, this study provides statistical evidence that accounting students' major satisfaction is correlated with their burnout and engagement which opens the door for further investigation regarding other factors that could foster student engagement and reduce the risk of burnout.

The implications of our findings are manifold. The instruments provided in the current study are deemed to be effective for capturing accounting students' burnout, engagement and major satisfaction. These factors can be useful for enhancing the well-being of accounting students and their instruments can be used for early warnings of dysfunctional behavior with a negative outcome. Our results also suggest that sophomore students are not settled enough to determine their emotional state about their major. This imperative finding suggests a lack of sufficient psychological counseling and guidance services for accounting students enrolled in Jordan. Thus, appropriate university intervention during the early years of enrolment in conjunction with the instruments provided in the current study can be effective for mitigating or enforcing certain behaviours.

We also identify some potential areas for future research. First, the consistency of students' results with those in practice can be useful for longitudinal studies to investigate if accounting students' burnout or engagement continue to their future career. Second, the role of personality traits of accounting students in mitigating or enforcing functional and dysfunctional behavior is still premature in accounting literature. Third, a replica of the current study in developed countries or in a more diverse student sample could also strengthen any generalization attempts. Finally, the antecedent and outcome factors for student burnout and engagement are still fuzzy compared to those determined in working environments. Thus, a structural equation model testing these relations will extend our knowledge in this field.

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