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EDITED BY

Baojuan Ye,
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REVIEWED BY

Carlos Freire,
University of A Coruña, Spain
Agus Rianto,
Borneo Tarakan University, Indonesia

*CORRESPONDENCE

Zeev Kaim
✉ zeev.kaim@gmail.com
Shlomo Romi
✉ Shlomo.Romi@biu.ac.il

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Academic-adjustment and gender: personal-resources and cognitive-resources, satisfaction and burnout among men and women

Zeev Kaim^{1,2*} and Shlomo Romi^{3,4*}

¹School of Education, Orot Israel College, Rosh Haayin, Israel, ²Hemdat HaDarom Academic College of Education, Netivot, Israel, ³School of Education, Bar-Ilan University, Ramat Gan, Israel, ⁴Herzog College, Jerusalem, Israel

Introduction: According to the Identity Capital Model and the Salutogenic Model students' academic-adjustment is affected by their emotions during their studies and by personal-resources and cognitive-resources. Two academic-adjustment measures examined here: Intention to complete a BA and intention to pursue an advanced degree – to explain the variance in academic-adjustment measures. As gender is a significant affecting variable on academic-adjustment, gender differences were related to academic-adjustment measures.

Methods: Participants were undergraduate university and college students of education, 189 men and 209 women. Participants answered questionnaires regarding demographic characteristics, personal-resources and cognitive-resources, motivation, satisfaction, burnout, and academic-adjustment.

Results: The findings revealed that students' sense-of-threat and sense-of-challenge were major contributors to academic-adjustment level and perceived academic efficacy. Similarities between men and women for academic-adjustment were found for demographic characteristics, personal-resources, burnout, and intention to complete BA. However, cognitive measures and motivation differed by gender, with sense-of-threat and sense-of-challenge contributing to explaining women's variance only; motivation contributed directly to women's academic-adjustment and only indirectly to men's due to their sense-of-challenge.

Discussion: The differences indicate variance in the academic-adjustment factors among men and women, pointing to the need for further research and constructing unique adjustment interventions for each group.

KEYWORDS

students, gender, personal-resources, cognitive-resources, academic-adjustment

Introduction

Academic-adjustment is the outcome of students' dealing with the pressures and difficulties of the academic world, and is affected by demographics, feelings associated with the studies and by cognitive, emotional, and social-resources that help deal with the academic demands (Casanova et al., 2018; Estrada et al., 2006; O'Donnell et al., 2018). Research has shown that academic-adjustment is significantly affected by gender (Casanova et al., 2018; Dwyer et al., 2013; Wells et al., 2013). The present study will take this finding one step further, and pinpoint the contribution of various resources to explain this gender-based difference in academic-adjustment.

In the present study, which pinpointed gender differences, students' academic-adjustment was evaluated using their subjective reports on their intention to complete their BA and pursue higher degrees. The variables examined—personal-resources, cognitive-resources and feelings during their studies—had been shown to be good predictors of students' academic-adjustment (Diniz et al., 2016; Hayat et al., 2020; Mana et al., 2019; O'Donnell et al., 2018). Personal variables, which are good predictors of students' academic-adjustment (Crede and Niehorster, 2012; Hayat et al., 2020; López-Angulo et al., 2021), included personal-characteristics (gender, marital status), personal-resources (coherence, social-support), cognitive-resources (sense of self-efficacy, sense-of-threat, sense-of-challenge), and motivation. The multiple indicators used to measure students' academic-adjustment will produce a more comprehensive picture, possibly serving as a basis for constructing a gender-based intervention to facilitate students' adjustment.

Personal-resources

Coherence is one's confidence that external and internal stimuli are expectable and explicable, and that one has the resources face the demands encountered as being meaningful, challenging, and worthy of investment (Antonovsky, 1993). Strong students' coherence predicts academic, emotional, and social adjustment, and contributes to health and mental wellbeing, whereas weak coherence leads to anxiety, depression, and an avoidant attachment style. Coherence levels were also found to be predictors of students' perception of their academic-achievements (Bacon-Kaufman, 2015; Dezutter et al., 2013; Lackaye and Margalit, 2006; Mana et al., 2019).

Social-support is the degree to which significant others provide a person with affection, appreciation, belonging, and security, and includes satisfaction, as well as information, and psychological and material resources, all of which contribute to psychological-wellbeing (Crede and Niehorster, 2012). Social-support is related to expanding one's emotional-resources, low levels of burnout and distress, developing coping strategies, and adjusting to pressure. It's an important measure of enhancing success, a positive self-image, and adjustment (Magro et al., 2019), and predicts academic functioning, good achievements, and low stress levels (Bacon-Kaufman, 2015; Crede and Niehorster, 2012; Li et al., 2018; Tahmasbipour and Taheri, 2012).

Cognitive-resources

Self-efficacy is individuals' belief in their ability to recruit motivation, cognitive-resources, and whatever actions needed to successfully carry out a task or behave in a situation-appropriate way. *Academic self-efficacy* is individuals' belief in their ability to succeed academically. Those with high academic self-efficacy perceive threat as challenge, set high personal goals, and consistently work to cope with failure and adversity (Bandura, 1997, 2015). Academic self-efficacy affects motivation, performance, achievements, as well as desire for academic success (Doménech-Betoret et al., 2017; Hayat et al., 2020).

Threat or challenge? Perception of academic-studies

Assessing a stressful situation is a subjective cognitive process, affected by the situation's characteristics and the individual's social and personal norms. When resources are assessed as being equal to the task, the sense-of-threat diminishes, and the situation is perceived as a challenge, a perception that is strengthened if the person has successfully faced adversity in the past (Del-Prato et al., 2011). Students face pressure and report cognitive and emotional responses to academic demands, exams, competition, and difficult subject matter (Fram and Bonvillian, 2001) and to the social pressure of campus life, financial strains, and lack of leisure time (Kariv and Heiman, 2004). Research has revealed that stress and other studies-related emotions are related to motivation, learning self-directedness and academic-achievements (Chin et al., 2017; Hayat et al., 2020; Pekrun et al., 2011).

Motivation

Motivation alerts and directs individuals' behavior toward desired situations and goals (Martin, 2008). Motivation is a crucial resource for learning (Lee et al., 2019), with motivated students accelerate their efforts when facing difficulties, and create their own cognitive scheme of learning abilities (Linnenbrink-Garcia and Pintrich, 2003). Most motivation constructs, such as objectives and achievement motives, ability self-concepts, and task values predicted academic-achievements beyond that predicted by IQ (Steinmayr et al., 2019).

Academic-adjustment is an outcome of students' dealing with the difficulties and pressures of academic life (Martin, 2013), often entailing satisfaction and burnout. The first, *satisfaction*, is related to students' perceptions of their academic abilities. Pleasant feelings, such as enjoyment and pride, were related to positive academic self-perception, perseverance, and completing the degree. Negative relationships were found between unpleasant feelings such as anxiety and anger, and positive academic self-perception (Chin et al., 2017; Pekrun et al., 2011). *Burnout* is when long-term, tiring interaction with people leads to physical and emotional fatigue (Salmela-Aro et al., 2009). Burnout can negatively impact students achievements, cause absenteeism, and damage their relationships with peers and teachers (Lee et al., 2019).

Academic-adjustment

Academic-adjustment is an outcome of students' dealing with a variety of stressors related to academic life. It's affected by cognitive, emotional, and social-resources that support successful dealing with academic demands and the feelings that accompany studies (López-Angulo et al., 2021; O'Donnell et al., 2018). Academic-adjustment can be assessed by a students' grade average, by the perseverance or dropout rates, and by subjective reports of one's sense of wellbeing and quality of life (Casanova et al., 2018; Estrada et al., 2006). In the present study, two measures were used to assess academic-adjustment – participants' intention to complete their BA and their intention to pursue advanced degrees (hereafter: MA/PhD).

Gender and academic-adjustment

Gender strongly impacts academic-adjustment, with women reporting better academic and social adjustment than men, and men showing higher emotional adjustment (Bacon-Kaufman, 2015). Women devote more time to studies and are more committed to obtaining a degree, while men are more occupied with their post-studies professional career and employment (Dwyer et al., 2013; Wells et al., 2013). Socially, women show higher levels of social commitment and volunteering, while men invest more in tasks related to leadership and competition and plans for international mobility program (Romi, 1999; Lopez, 2014; Sax and Harper, 2007). Additionally, women experience more stress, anxiety, depression, and distress than men, although their learning abilities are higher, as is their view of higher education (Abu-Kaf and Braun-Lewensohn, 2015; Casanova et al., 2018). Thus, women's dropout rates are higher (Altannir et al., 2020; Casanova et al., 2018; Fares et al., 2016), perhaps because they must balance family needs and studies, or because their emotional adjustment to stress is more difficult and they are more vulnerable. According to Fares et al. (2016), women are more likely to perceive threatening and challenging situations as stressful.

Summary

In the research review we demonstrated that demographic characteristics, personal and cognitive-resources, as well as motivation, satisfaction, and burnout contribute to explaining students' academic-adjustment. The review also showed that men and women's resources are different, as are their attitudes towards academic-studies. Thus, the study's aim was to examine whether there are differences between men and women in the relationships between the study variables and the academic-adjustment measures.

Materials and methods

Sample

The study population included 398 undergraduate students of education in three universities and in five teacher education colleges. There were 189 men (47.5%) and 209 women (52.5%); mean age = 26.9 ($SD = 6.13$). Participants were recruited by the Snowball Method. Questionnaires were distributed on campus, outside the classrooms. About two-thirds (62.1%) were college students, and about a third (37.9%) – university students. More students were single (56.5%) than married (43.5%).

Tools

Participants filled in nine questionnaires:

- *Demographic questionnaire*: Gender, age, type of school, year of studies, marital status.

- *Coherence questionnaire* (Antonovsky, 1993). Using 13 out of 29 items in the original questionnaire, participants rated their thoughts, emotions, and actions regarding various stimuli vis-à-vis three factors: Coherence, control, and discipline. Answers were rated on a 7-point Likert scale (1—*always*, 7—*never*). Internal consistency was high: $\alpha = 0.81$.
- *Social-support questionnaire* (Zimet et al., 2010). The 12 self-report items described the perceived support from family (4 items), friends (4 items), and other significant individuals (4 items). Participants rated the degree to which they agreed with a statement (1—*very appropriate to me*, 7—*not at all appropriate to me*). Higher scores were related to higher perceived support. Internal consistency was high: $\alpha = 0.94$.
- *Study self-efficacy questionnaire* (Pintrich et al., 1993). Eight items examined students' perception of their level of self-efficacy and performance. Participants rated the degree to which they agreed with a statement (1—*not correct for me at all*, 7—*very correct for me*). Higher scores were related to higher learning self-efficacy. Internal consistency was high: $\alpha = 0.94$.
- *The Academic Motivation Scale – AMS* (Vallerand et al., 1992). Nineteen of the 28 items in the original questionnaire were used for this study, selected by education experts. On a 7-point Likert scale, participants rated their reasons for choosing academic-studies (1—*not at all*, 7—*exactly*). Internal consistency was high: $\alpha = 0.93$.
- *Threat and challenge questionnaire* (Lazarus and Folkman, 1984). The 14-item questionnaire examined the degree to which academic-studies can raise a sense-of-threat or sense-of-challenge. Nine items referred to sense-of-threat and 5 to sense-of-challenge, describing various responses to each. On a 6-point Likert scale, participants rated the similarity of their responses to those listed (1—*not at all*, 7—*to a great degree*). Two measures were derived based on the mean assessment of the items. Higher scores were related to a stronger sense-of-threat or sense-of-challenge. Internal consistency was high for both measures— $\alpha = 0.87$ for sense-of-threat and $\alpha = 0.82$ for sense-of-challenge.
- *Burnout questionnaire* (Malach-Pines, 2005). Ten items in the questionnaire describe one's emotional state (e.g., worried, disappointed, worn out). Participants were asked to rate their responses on a 7-point Likert scale (1—*weak burnout*, 7—*severe burnout*). Internal consistency was high: $\alpha = 0.85$.
- *Satisfaction with studies questionnaire* was developed specifically for this study based on a life-satisfaction questionnaire (Diener et al., 1985). Participants were asked to rate their agreement with each of the 5 items (e.g., "My life is usually close to my ideal.") on a 5-point Likert scale (1—*strongly disagree*, 5—*strongly agree*). A satisfaction scale was constructed based on the mean assessment, with higher scores related to higher levels of satisfaction. Internal consistency was high: $\alpha = 0.86$.
- *Academic-adjustment questionnaire*. Two items, one referring to participants' perception of the degree to which they intend to complete their BA, the second – the degree to which they want to pursue MA/PhD. Responses were rated on a 7-point Likert scale (1—*strongly disagree*, 7—*strongly agree*). A higher score indicates the intention to complete the degree or pursue MA/PhD.

Procedure

After receiving CHE approval, the researchers approached heads of academic institutions, and received positive answers from heads of three universities and of five colleges. The participating classes were selected randomly in each institution, and questionnaires were filled in between classes. Students were assured that the questionnaires are anonymous, would be used for research only, and that participation is optional. Of the 533 sets of questionnaires distributed, 389 (73%) were returned fully completed. Participants spent about 30 min filling in the nine questionnaires.

Data analysis section

The main objective of the study was to examine the contribution of various characteristics to explaining the variance in academic adjustment measures among students. The characteristics examined included demographic factors, personal resources (coherence and support), cognitive resources (sense of threat, sense of challenge, and academic self-efficacy), as well as feelings of motivation for learning, satisfaction, and burnout. Academic adjustment was assessed using two measures: intention to complete a BA and intention to pursue advanced degrees.

An additional aim of the study was to investigate whether there are gender differences in the relationships between the research variables and the academic adjustment measures. First, the correlations between the resources and the academic adjustment measures will be presented, including Fisher's *Z* analyses to compare the correlations among both men and women. Subsequently, regression analyses will be presented to explain the academic adjustment measures. The hierarchical regression analyses included separate six-steps which were conducted for each group separately. Step 1: personal-characteristics (Institution, and family status) Step 2: personal-resources (coherence and social-support). Step 3: Cognitive-resources (self-efficacy, sense-of-challenge, and sense-of-threat). Step 4: motivation. Step 5: emotional adjustment variables (burnout and satisfaction). Step 6: The contribution of interactions among the demographic variables personal-resources, cognitive-resources and emotional adjustment variables.

Results

The findings indicated that cognitive-resources were major contributors to academic-adjustment levels. We will now discuss the gender similarities and differences found for the various variables.

Relationships between research variables

To examine relationships between the research variables, Pearson's correlations were calculated for the total sample and separately for men and women. Fisher's *Z* analyses were conducted to compare the correlations for men and for women. These analyses reveal significant differences between the correlations of gender groups (Table 1).

As seen in Table 1, there is a significant positive correlation between coherence and the intention to complete their BA, but not with an intention to pursue MA/PhD, with higher coherence related to a greater intention to complete their BA. No significant correlations were found between social-support and the two academic-adjustment measures.

Regarding cognitive-resources—Sense-of-threat was found significantly correlated to two academic-adjustment measures, with stronger sense-of-threat related to lower academic-adjustment, and higher correlations among women than among men. Fisher's *Z* analyses, conducted to compare these correlations by gender, revealed significant differences in the correlation between sense-of-threat and the intention to complete BA ($Z = 2.05, p < 0.05$) and between sense-of-threat and intention to pursue MA/PhD ($Z = 3.32, p < 0.001$).

Additionally, significant positive correlations were found between a sense of self-efficacy and the two academic-adjustment measures in men and women alike, with higher self-efficacy related to higher academic-adjustment. A significant correlation was also found between motivation and intention to pursue MA/PhD, with higher motivation associated with greater intention. This correlation was higher among women, and Fisher's *Z* analyses by gender revealed significant differences in the correlation between education and motivation and completing their BA ($Z = 3.75, p < 0.001$).

As for the relationship between burnout and satisfaction and academic-adjustment measures in both genders—negative correlations were found between burnout and intention to complete their BA, and positive correlation between satisfaction and this intention. Thus, the higher the sense of burnout among men, the lower

TABLE 1 Pearson correlations for measures of personal-resources, cognitive measures, motivation, and sense of burnout and sense of satisfaction, intention to complete their BA and intention to pursue MA/PhD ($N = 398$).

Measures	BA		MA/PhD	
	Men	Women	Men	Women
Coherence	0.25***	0.27***	0.13	-0.01
Social-support	0.12	0.08	0.01	0.02
Sense-of-threat	-0.19*	-0.38***	-0.18*	-0.28***
Sense-of-challenge	0.06	0.05	0.05	0.37***
Self-efficacy	0.29***	0.36***	0.24**	0.30***
Motivation	0.08	0.13	0.26***	0.43***
Burnout	0.20**	0.33***	0.00	0.10
Satisfaction	0.20**	0.22**	0.09	0.20**

** $p < 0.01$. *** $p < 0.001$.

TABLE 2 Regression analyses for intention to complete their BA (both genders).

Step	Predictors	Men			Women		
		B	β	ΔR^2	B	β	ΔR^2
1	Institution	-0.12	-0.10		-0.09	-0.07	0.02
	Family status	0.05	0.05		-0.02	-0.02	
2	Coherence	0.21	0.24**	0.04*	0.23	0.27***	0.04*
	Social-support	0.03	0.07		0.02	0.04	
3	Sense-of-threat	-0.08	-0.13	-0.08**	-0.22	-0.29***	-0.20***
	Sense-of-challenge	0.00	0.00		-0.04	-0.07	
	Self-efficacy	0.23	0.27**		0.30	0.34***	
4	Motivation	-0.01	-0.04	0.00	0.01	0.02	0.00
5	Burnout	-0.13	-0.19*	0.04*	-0.20	-0.24***	0.06**
	Satisfaction	0.08	0.16		0.08	0.12	
R^2			0.18***			0.32***	

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

their intention to complete their BA, and their higher satisfaction with studies is related to higher intention. Additionally, among women, a significant positive correlation was found between satisfaction and intention to pursue higher education. Fisher's Z analyses were performed to compare between genders, and a significant difference was found in the correlation between satisfaction and desire and intention to pursue higher education ($Z = 2.28, p < 0.05$).

Regression analyses

Following the differences in the correlations between men and women, hierarchical regression analyses were conducted by gender to examine the variables that contribute to explaining academic-adjustment variance. Regression analyses were conducted for each gender for the two academic-adjustment variables: Intention to complete their BA and intention to pursue MA/PhD. Coefficients for hierarchical regression to explain the variance are presented (Table 2).

As seen in Table 2, Step 1—personal-characteristics (gender, college/university, and family status) did not contribute significantly to explaining variance between men and women. For Step 1—personal-resources (coherence and social-support)—a significant contribution of 4% was found for both genders. Of these two, only coherence made a significant contribution to all participants, with positive β coefficients, so that, in both genders, higher coherence was related to higher intention to complete their BA.

Cognitive-resources (self-efficacy, sense-of-challenge, and sense-of-threat) were entered in Step 3, and showed a significant contribution for women (20%) and men (8%). For both genders sense of self-efficacy contributed significantly to explaining the variance, with higher self-efficacy related to higher intention to complete their BA. Among women, sense-of-threat was also a significant contributor. The β coefficient for this variable was negative, so that the higher the sense-of-threat, the less women intended to complete their studies. Motivation, the variable entered in Step 4, did not contribute significantly to explain the gender variance.

Burnout and satisfaction contributed 4% among men and 6% among women to explain the variance. Of the two, only burnout

contributed significantly in both groups. The β coefficient for burnout was negative, so that higher levels of burnout were related to lower intention to complete studies. In Step 6, where interactions among the demographic variables personal-resources and cognitive-resources were entered with the research measures, no significant interactions were found. Regression analyses for overall comparison between genders in this measure revealed a 18% contribution to explaining the variance of completing the degree, and a higher one—32%—among women. Next, a regression analysis for explaining intention to continue to advance degrees among men and women was conducted, and the hierarchical regression analyses are presented (Table 3).

As seen in Table 3, the personal-characteristics entered in Step 1 made a significant contribution (4%) to explaining the variance in intention to pursue MA/PhD, but only among women. The type of academic institution was also a significant contributor, with women who were university students having a higher intention to pursue MA/PhD than their college-attending peers. The personal-resources coherence and social-support, entered in Step 2, did not contribute significantly to intention to continue to MA/PhD in both genders.

Cognitive measures (self-efficacy, sense-of-threat, and sense-of-challenge) were entered in Step 3, and made a significant contribution of 29% among women and 4% among men. Among men, self-efficacy makes up the entire contribution, with a higher sense of self-efficacy leading to higher intention to pursue MA/PhD. Conversely, among women, all three cognitive measures contributed; β coefficients for self-efficacy and sense-of-challenge were positive, and β for sense-of-threat—negative. Among women, higher levels of self-efficacy and sense-of-challenge and lower levels of sense-of-threat were related to higher intention to pursue advance degrees. Motivation, added in Step 4, made a significant contribution of 6% to explain variance among women; β coefficient for motivation was positive, so that higher levels of motivation were related to higher intention to pursue MA/PhD. Motivation did not contribute directly or significantly to explain the variance.

Burnout and satisfaction, added in Step 5, did not contribute significantly to explain the variance in both genders. Intention to complete graduate studies was added in Step 6, making a significant contribution to explain variance—5% among women, and 4% among men. For both genders, β coefficients were positive, so that a higher

TABLE 3 Regression analyses for explaining variance in intention to pursue MA/PhD (both genders).

Step	Predictor	Men			Women		
		B	β	ΔR^2	B	β	ΔR^2
1	Institution	-0.27	-0.15		-0.33	-0.17*	0.04*
	Family status	0.17	0.06		-0.22	-0.07	
2	Coherence	0.24	0.16	0.02	-0.07	-0.07	0.02
	Social-support	-0.06	-0.06		0.04	0.03	
3	Sense-of-threat	-0.07	-0.04	0.04*	-0.46	-0.25***	0.29***
	Sense-of-challenge	0.03	0.03		0.47	0.34***	
	Self-efficacy	0.26	0.22***		0.50	0.33***	
4	Motivation	0.11	0.16	0.02	0.36	0.35***	0.06**
5	Burnout	0.13	0.07	0.00	-0.15	-0.10	0.01
	Satisfaction	0.03	0.03		-0.09	-0.05	
6	BA	0.33	0.24***	0.04*	0.39	0.29***	0.05*
7	Sense-of-challenge \times Motivation	0.26	0.29***	0.08***			
	Social-support \times Satisfaction				0.43	0.32***	0.05**
R^2			0.22***			0.52***	

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

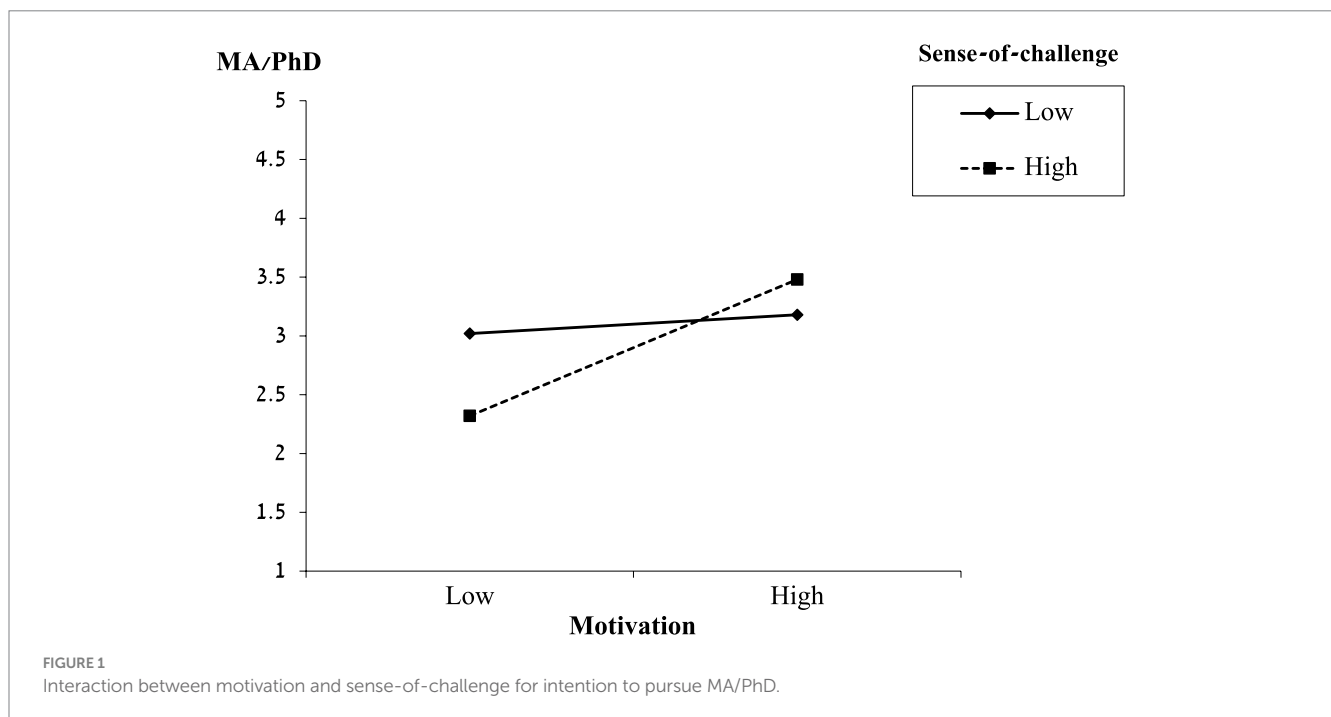


FIGURE 1 Interaction between motivation and sense-of-challenge for intention to pursue MA/PhD.

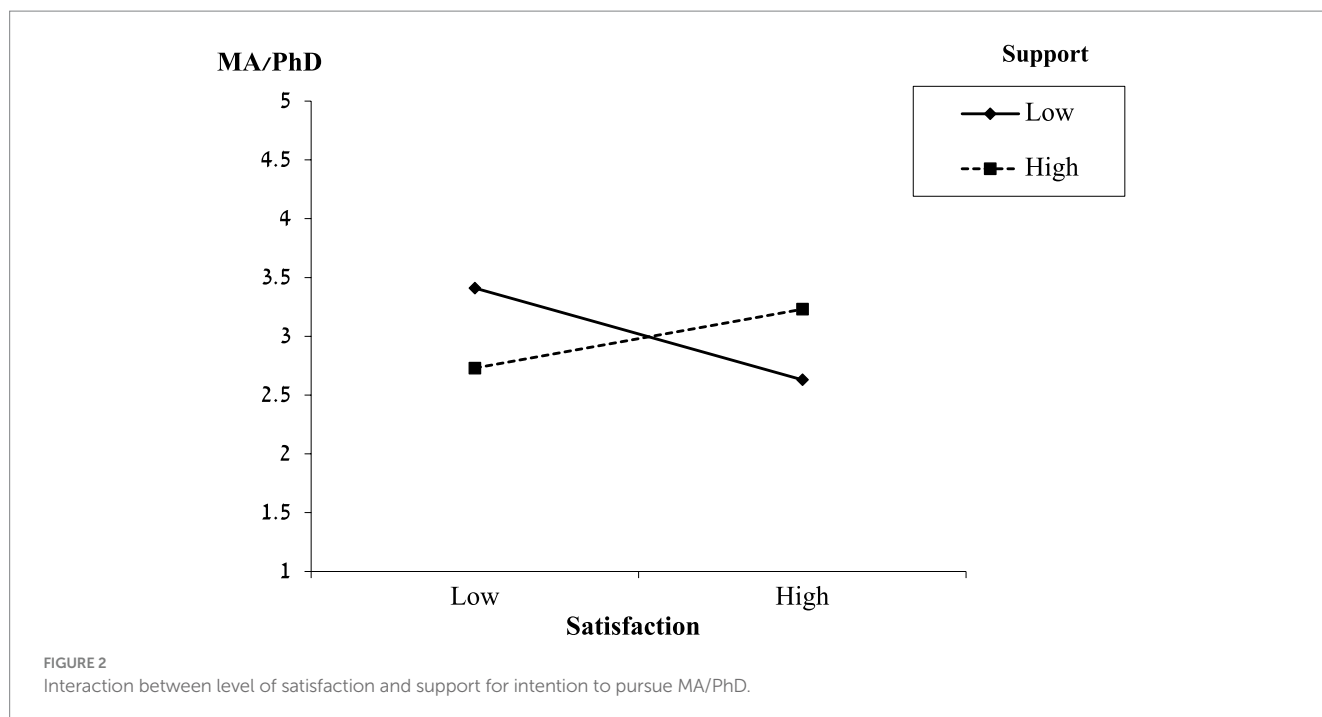
intention to complete their BA was related to higher intention to pursue advance degrees.

In Step 7, the contributions of interaction between the demographic variables, the personal-resources, cognitive-resources, sense-of-challenge, motivation and the research measures were examined. Among men the interaction made a significant contribution: Motivation \times sense-of-challenge at 8% to explain the variance in intention to pursue advanced studies (Figure 1).

As seen in Figure 1, motivation contributed to explaining men’s intention to pursue MA/PhD, for those who had high levels of

sense-of-challenge for academic-studies, $\beta = 0.40, p < 0.001$, but not among men whose level was low – $\beta = 0.07, p > 0.05$. However, among women the interaction support \times satisfaction made a 5% contribution to explaining variance in intention to pursue advanced degree (Figure 2).

As seen in Figure 2, for women with high social-support, higher satisfaction was related to a higher intention to pursue MA/PhD, $\beta = 0.21, p < 0.05$. Conversely, among women with low social-support, higher satisfaction levels were related to lower intention to pursue MA/PhD, $\beta = -0.31, p < 0.001$.



Regression analysis for overall comparison in this measure showed that the contribution to variance in intention to pursue MA/PhD was 22% among men, and much higher—52%—among women.

To sum, the regression analyses revealed that the contribution of personal-characteristics to explain variance in the two measures examined was relatively low. The type of institution contributed to intention to pursue MA/PhD among women. As for personal-resources, coherence contributed to explaining measure variance. Cognitive-resources—self-efficacy and sense-of-threat—were the greatest contributors to completing their BA and intention to pursue MA/PhD, while sense-of-challenge contributed only to explain variance in intention to pursue MA/PhD. Motivation and intention to complete their BA contributed to explaining variance of intention to pursue advanced studies. Additionally, burnout was found to contribute to explain variance in intention to complete their BA, and there was a contribution of the interaction between demographic variables and certain resources to the research measures.

Discussion

The cognitive measures groups seemed to have made the greatest contribution to explaining the variance in academic-adjustment measures in both genders, indicating that students' intentions to complete their BA and pursue MA/PhD are highly affected by their cognitive sense-of-threat of academic-studies and their sense of self-efficacy. Namely, they are affected by their belief in their ability to deal with the challenges of academic-studies.

Men and women showed similar—and low—levels of contribution of demographic characteristics, personal-resources, and levels of satisfaction and burnout to explain the variance in both academic-adjustment variables. Similarities were also found in the contribution of intention to complete their BA to explain variance regarding intention to pursue MA/PhD.

Conversely, cognitive measures and motivation had a different contribution in each gender to explain the academic-adjustment variance. It was also found that the contribution of variables to academic-adjustment measures was notably higher among women than among men. Regression analyses revealed that among men, 18% of variance in intention to complete their BA and 22% of intention to pursue MA/PhD; among women this is 32 and 52%, respectively. The difference may be in men and women's reasons to choose academic-studies. Men tend to have career-oriented instrumental motives for such studies, and their motives are individualistic. Women's motives are social and collectivist, as well as expanding their horizons (Dwyer et al., 2013; Sax and Harper, 2007; Wells et al., 2013). It's possible that the predictive variables chosen for this study were better suited to women's motives than to men's, thus making them more successful in explaining the variance in academic-adjustment among women. This finding differs somewhat from earlier research (Romi, 1999) where differences were age related, requiring further thinking to discern the attitudes of men versus women throughout life.

Examining the personal-resources—coherence and social-support—in both genders showed a positive correlation between coherence and intention to complete their BA, a correlation also expressed in the regression analyses. These findings are consistent with those of previous studies where coherence was found to predict adjustment under pressure, be a contributor to health and mental wellbeing (Bacon-Kaufman, 2015; Dezutter et al., 2013), and related to students' achievements (Bacon-Kaufman, 2015; Mana et al., 2019). Furthermore, studies revealed that individuals with strong coherence use a variety of coping strategies and success in choosing the most useful one for dealing with stressful situations (Lackaye and Margalit, 2006). As the present study did not reveal that coherence contributed to explaining variance in students' intention to pursue MA/PhD, it's possible that those who are willing to pursue these degrees are endowed with relatively other social and cognitive-resources, making them less reliant on coherence.

No positive correlations were found between social-support and academic-adjustment measures. This finding contradicts those of previous studies where a positive relationship was found between social-support and positive academic functions, low levels of stress and depression, using active coping strategies (Magro et al., 2019; Tahmasbipour and Taheri, 2012), and high levels of academic perseverance and achievements (Bacon-Kaufman, 2015; Crede and Niehorster, 2012; Li et al., 2018; Mana et al., 2019). A possible reason for the discrepancy between the present findings and those of previous studies may be that the present questionnaire referred to social-support in general, not to support related to academic-studies. Future studies should use questionnaires focusing specifically on social-support of academic-studies.

An examination of the three cognitive measures in all students revealed positive correlations between academic-adjustment measures and self-efficacy, sense-of-challenge, and sense-of-threat. The notable contribution of self-efficacy to academic-adjustment in both genders is consistent with findings that it's among the main variables contributing to academic success, and is crucial for learning, motivation, and academic-achievements (Doménech-Betoret et al., 2017; Hayat et al., 2020).

An essential difference between men and women was found for sense-of-threat and sense-of-challenge and their correlation with academic-adjustment measures, which were higher among women. Accordingly, regression analyses yielded that only among women did these variables contribute to studying, perhaps because women expect more of their studies, and are more committed to getting their degree (Wells et al., 2013). Our finding is consistent with those of Abu-Kaf and Braun-Lewensohn (2015) and Casanova et al. (2018), who demonstrated that anxiety and distress are more severe among women than among men. This tendency toward more severe symptoms may stem from the conflict between women's aspirations and stereotypical gender roles, a conflict that undermines their sense-of-control over their aspirations and their behavioral patterns (Bryant and Harvey, 2003).

Our research also yielded positive correlations between men and women's levels of motivation and their intention to pursue MA/PhD, a relationship expressed in the regression analyses. Previous studies have also shown that motivation promotes and directs behavior toward preferred situations and goals (Martin, 2008). It intensifies individual's efforts when confronting learning difficulties, and helps learners create a cognitive scheme for learning ability (Linnenbrink-Garcia and Pintrich, 2003), all of which can help students persevere with the studies and succeed in them (Steinmayr et al., 2019), and strengthen their desire to pursue MA/PhD.

At the same time, in analyzing the interaction between the variables, the interaction Motivation \times sense-of-challenge was found to be a significant contributor, indicating that motivation helps only men with a high sense-of-challenge of studies, whereas men with weak sense-of-challenge show no association between level of motivation and their intention to pursue MA/PhD. Thus, men with motivation and high levels of sense-of-challenge, expressed a high intention to continue to more advanced degree. Among women, high motivation meant high intention to pursue MA/PhD, whether their sense-of-challenge was high or low. This finding could indicate that for men, the contribution of motivation to academic-adjustment is dependent upon their cognitive

perception of the degree to which they can succeed in their studies or the degree of interest they have in these studies. Only when sense-of-challenge for studies is congruent with the male student's level of motivation, will he want to pursue an advanced degree. This finding is consistent with that of previous studies which revealed that women's expectations of studies are higher than those of men, and that overall, they devote more time to studies and are more committed to getting their degree, which men are more preoccupied with their post-graduation professional career and employment, and less with the studies themselves (Dwyer et al., 2013; Wells et al., 2013).

As for the emotional adjustment variables – satisfaction and burnout – negative correlations were found for both genders between burnout and intention to complete their BA, and positive correlation between satisfaction and such intention. These findings are consistent with those of previous studies where a positive correlation was found between students' satisfaction with their studies and their academic-achievements (Dhaqane and Afrah, 2016), and a negative correlation between their level of academic-burnout and their academic-achievements (Lee et al., 2019). Previous studies – where a positive relationship was found between positive academic self-perception and pleasant feelings such as enjoyment and pride – can explain these findings; negative relationships were found between unpleasant feelings, such as anxiety and anger, and a positive academic self-perception (Chin et al., 2017; Pekrun et al., 2011). It seems that students' negative emotions, such as fatigue, anxiety, and anger, generate their negative academic self-perception. The regression analyses conducted in the present study revealed that only burnout contributed to explain the variance in intention to complete their BA, due to the relationship between burnout and satisfaction.

No correlations were found between burnout and satisfaction and the second academic-adjustment measure – intention to pursue MA/PhD. However, among women only satisfaction explained the variance in such intention, but this contribution was dependent upon their level of social-support. This finding was expressed in the significant contribution of the support \times satisfaction interaction, indicating that only among women with high social-support did satisfaction with the studies lead to an intention to pursue advanced degrees, whereas among women with low social-support, higher satisfaction was related to lower intention to do so. Perhaps it's the support of close people that causes women to feel that they can persevere with studies and perform academic tasks even when they face difficulties. Women with low social-support felt that there would be no one to support them throughout their advanced studies, even if they were satisfied with their current studies.

Research limitations and recommendations

The limitations found here could be addressed in future studies. The variables examined here: Personal-resources, cognitive-resources, motivation, satisfaction, and burnout – contributed more to explaining women's academic-adjustment, and other variable should be sought that may contribute more to explaining men's academic-adjustment. If so, different academic support systems should be considered for men and women. Future

studies should examine the degree to which other variables contribute to academic-adjustment among all students. It's especially recommended that instrumental factors (e.g., as acquiring a profession, receiving a degree, and wages commensurate with the education) and individualistic factors (e.g., self-fulfillment and developing independence) be examined, as previous studies found them to affect men's academic choices, and they may contribute to academic-adjustment as well.

social-support wasn't found to have a direct contribution to explaining students' variance in intention to complete their BA and continue to MA/PhD, despite previous studies that showed that social-support is a main predictor of academic-adjustment. It's recommended to further examine the contribution of this variable to explaining variance in academic-adjustment, and examine the relationships between social-support and different measures of students' adjustment—learning, social, and emotional adjustment – and refer to the support source (parents, friends, other significant adults) and to the support type (emotional, instrumental, seeking advice, etc.).

Additionally, future studies should compare such aspects as differences among students in the contribution of the various resources between men and women by their year of study to determine whether acquaintance with the system affects academic-adjustment. The students in the study were all in teacher-education programs, and it's recommended that students of other disciplines be examined, including a longitudinal study to determine whether the contribution of different resources changes over time for men and women's academic-adjustment.

Additionally, in the current study, we considered the predictive variables of academic adjustment as overall measures. In future research, it is recommended to conduct a Confirmatory Factor Analysis (CFA) for these predictive variables and, based on the analysis results, consider conducting statistical analyses according to the identified factors.

Summary, conclusion, and suggestions

The importance of higher education has led many researchers to examine the factors contributing to academic-adjustment, which is affected by cognitive, emotional, and social-resources that support students' successful coping with academic demands. The connection between gender and emotional measures, cognitive-resources, and academic-adjustment is important. Two measures of academic-adjustment were examined in the present study – intention to complete their BA and intention to pursue MA/PhD.

The findings showed that cognitive-resources were the main contributors to explaining academic-adjustment levels among all students—men and women alike. This confirms the argument that, for both gender, positive cognitive perception of their academic abilities contributes to their success in meeting their academic tasks and their intention to persevere with studies.

Additionally, differences were found in the contribution to the two academic-adjustment measures: The intention to complete their BA is affected by coherence and burnout, while pursuing MA/PhD is affected by motivation and sense-of-challenge. These

differences may indicate different resources required to adjusting to BA studies as opposed to adjusting to studies toward MA/PhD, which require resilience resources such as motivation and sense-of-challenge that can be developed in the education system even in students with a complex personal and personality background. However, further studies are required to gain better understanding.

The study points to several gender differences in academic-adjustment. The research variables were better at predicting women's adjustment, and the sense-of-threat and sense-of-challenge contributed to explaining variance only among women. It was further found that the level of learning motivation contributed directly to explaining women's academic-adjustment, but only indirectly to men's academic-adjustment – through sense-of-challenge of studies. These differences highlight the need to construct interventions to strengthen the resources of men and women in institutes of higher education, and for continued research to gain better understanding of the variables that predict academic-adjustment.

Another conclusion is the importance of social-support as a resource among women in the academic world as a key to mobility toward advanced degrees. The findings indicated that satisfaction with studies wasn't sufficient to move women to pursue advanced degrees, but that this move is dependent upon the level of social-support they receive from their networks. Hence, interventions for women could be constructed based on enhancing social-support in the academic world and outside it, to increase the number of women pursuing advanced degrees.

Identifying factors that explain academic-adjustment by gender may provide relevant information for academic institutions directing them to construct questionnaires that identify the student's academic-adjustment level and create appropriate intervention programs aimed to increase it and reduce their dropout rates ([American College Health Association, 2016](#)).

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

Ethics statement

The studies involving humans were approved by Ethical committee of Orot Israel College of Education, Israel. The studies were conducted in accordance with the local legislation and institutional requirements. By completing the questionnaire, the participants confirmed their informed consent to participate in the study.

Author contributions

ZK: Conceptualization, Data curation, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – review & editing, Formal analysis, Funding acquisition, Writing – original draft. SR: Conceptualization, Data curation, Investigation, Methodology, Project

administration, Resources, Software, Supervision, Validation, Visualization, Writing – review & editing.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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