

The Impact of Perceived Social Support on Academic Self-Efficacy among Students Preparing for the Baccalaureate Examination

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Chafik Saad¹

¹ University of Biskra, Algeria, **Email:** chafik.saad@univ-biskra.dz,
<https://orcid.org/0009-0005-8954-4542>

Abstract:

This study examined the relationship between perceived social support (family, friends, and significant others) and academic self-efficacy among 194 secondary school students preparing for the Baccalaureate examination in Biskra, Algeria (mean age = 18 years). The Academic Self-Efficacy Scale and the Arabic version of the MSPSS were used. Multiple regression analysis showed that perceived social support explained 62.5% of the variance in academic self-efficacy ($R^2 = 0.625$). Family support and support from significant others significantly predicted academic self-efficacy, whereas friends' support was not a significant predictor. The findings emphasize the importance of social support, particularly family and significant others, in enhancing academic self-efficacy during this critical educational stage.

Keywords: academic self-efficacy, perceived social support, family support, secondary school students, baccalaureate

Corresponding Author: Chafik Saad, Email: chafik.saad@univ-biskra.dz

1. INTRODUCTION

The preparation stage for the Baccalaureate examination in Algeria, as in many Arab countries, represents a decisive turning point in students' academic and life trajectories. This examination not only determines access to higher education, but also constitutes a social criterion of success and a defining milestone in the personal identity of Algerian youth. Within this demanding context, and given the substantial responsibilities associated with the educational system, mastering academic content, coping with an intensive study schedule, and maintaining continuous preparation and revision for the examination (Ben Abbad & Aissaoui, 2021), academic self-efficacy emerges as a crucial psychological factor that influences not only examination performance, but also students' mental health and their ability to cope with academic challenges.

Students who possess a high level of academic self-efficacy **ASE** tend to be more confident in their abilities, more capable of dealing with academic difficulties, and more inclined to use effective learning strategies, which positively affects their academic achievement and school adjustment. Accordingly, the development of academic self-efficacy cannot be separated from the social context in which students live, as perceived school social support represents one of the key psychological and social factors that contribute to enhancing mental well-being and academic performance.

Perceived social support **PSS** refers to students' subjective perception of the availability of supportive individuals in their lives, whether family members, friends, or significant others, who provide emotional support, encouragement, and guidance when needed.

Contemporary psychological and educational literature emphasizes the central role of academic self-efficacy in explaining students' performance and resilience, especially during critical educational stages. This importance is grounded in two main theoretical frameworks. The first is Social Learning Theory (Bandura, 1986) which suggests that self-efficacy beliefs are formed through interaction with sources of social support. The second is Self-Determination Theory (Ryan & Deci, 2017), which considers the satisfaction of the need for relatedness as a basic condition for the development of intrinsic motivation and a sense of effectiveness.

Despite this strong theoretical foundation, reviews of empirical studies, including recent research from different contexts, reveal a complex picture and clear variation in the nature and strength of the relationship between perceived social support and academic self-efficacy. This variation does not only reflect methodological differences, but also strongly points to the influence of cultural context, developmental stage, and specific environmental conditions.

In the Arab context, findings are mixed. A study conducted among secondary school students in Jordan found a positive relationship

between the three sources of social support (family, friends, and significant others) and self-efficacy (Al-Khatib, 2021). Another study in Algeria reported a high level of self-efficacy among middle school students and a positive association with academic achievement (Ben Youssef & Tabchi, 2024). In contrast, a different Algerian study highlighted the intense psychological pressure experienced by baccalaureate students due to the high-stakes nature of the exam (Ben Abad & Aïssou, 2021), raising questions about how effective social support can be under such stressful conditions.

The picture becomes even more complex when considering international research, which often suggests that the relationship between social support and self-efficacy is indirect. A recent study showed that social support plays a mediating role in the relationship between teacher–student relationships and academic engagement, with self-efficacy acting as a moderating factor (Wang, Wang, Yang, & Wang, 2024). In the university context, another study found that academic self-efficacy fully mediates the relationship between perceived social support and academic anxiety (Laksmiwati & Tondok, 2023). Other research has shown that social support influences self-efficacy through the mediation of a sense of security (Chen, Zhu, & Xiao, 2024).

Within the specific Algerian context of the present study, and despite the importance of this topic, a clear research gap remains. There is a lack of studies examining the predictive relationship between different

sources of social support (family, peers, and teachers) and academic self-efficacy among secondary school students, a stage that is both critical and highly stressful.

Accordingly, the research problem of the present study is defined as the need for a careful and integrated examination of the relationship between perceived social support (as a total construct and as separate dimensions) and academic self-efficacy among secondary school students in Algeria. This aims to better understand the nature of this relationship and the relative predictive power of each source of support within this specific context.

Main research question:

What is the nature of the relationship between **PSS** with its dimensions and **ASE** among secondary school students in Algeria? To what extent does each dimension predict variation in academic self-efficacy?

Sub-questions:

What is the level of **ASE** and the level of **PSS** among secondary school students in the study sample?

Is there a statistically significant correlation between the total score and the different dimensions of **PSS** and **ASE**?

Do the predictive effects of social support dimensions differ in relation to **ASE** ?

Which predictive model, including all three dimensions together, best explains the variance in **ASE** among the study sample?

Understanding the relationship between academic self-efficacy and perceived social support requires a solid theoretical foundation. The present study is guided by **Bandura's social cognitive theory** (1986), which emphasizes the dynamic interaction among personal beliefs, behaviors, and environmental influences. This framework is particularly relevant in educational research, as it highlights how students' perceptions of their own abilities (self-efficacy) and the support they receive from their social environment jointly influence academic performance and adjustment.

The theoretical approach also integrates the concept of **perceived social support**, grounded in the stress-buffering model, which posits that support from family, peers, and significant others mitigates the negative effects of stress on performance and well-being (Cohen & Wills, 1985). Within this framework, students' academic motivation, emotional regulation, and achievement are seen as outcomes of the interplay between their self-efficacy beliefs and the social support available to them.

This approach allows the current study to examine not only the individual effects of each variable but also their potential interactions, providing a comprehensive understanding of how cognitive and social factors shape academic outcomes in high-stakes educational contexts, such as the baccalaureate exam in Algeria.

Academic Self-Efficacy: The concept of self-efficacy originates from Albert Bandura's social cognitive theory, which emphasizes the triadic

interaction among personal, behavioral, and environmental factors (Bandura, 1986). In the academic context, self-efficacy refers to a student's belief in their ability to organize and execute the necessary actions to achieve academic goals (Zimmerman, 2000, p. 82).

Academic self-efficacy develops through four primary sources, according to (Bandura, 1997):

- **Mastery Experiences:** Previous successes in academic tasks that strengthen self-belief.
- **Social Modeling:** Observing peers or role models who succeed in similar tasks.
- **Verbal Persuasion:** Encouragement and constructive feedback from teachers, parents, or peers.
- **Physiological and Emotional States:** Interpreting one's own stress or anxiety in academic situations.

During the baccalaureate stage, these sources face specific pressures. Mastery experiences accumulate from prior academic challenges, social modeling is influenced by peers' performance in previous exams, verbal persuasion from teachers and family becomes exceptionally important, and physiological and emotional states often peak due to exam-related stress (Chemers, Hu, & Garcia, 2001). Studies indicate that students with higher academic self-efficacy demonstrate better stress management and higher academic performance during high-stakes exams (Pajares, 1996); (Usher & Pajares, 2008).

Perceived Social Support: Perceived social support is defined as an individual's self-assessment of the availability of people who can provide assistance when needed (Zimet, Dahlem, Zimet , & Farley, 1988, p. 31). **The Multidimensional Scale of Perceived Social Support (MSPSS)** measures three dimensions:

- Family Support: Emotional and practical assistance from family members.
- Friend Support: Support received from peers.
- Significant Other Support: Support from important individuals outside the immediate family, such as teachers or close community members.

In the Algerian context, these dimensions exhibit specific cultural characteristics. Family support, in the collectivist Algerian society, extends beyond parents to include the extended family (grandparents, uncles, aunts), giving it unique significance. Support from significant others may include not only teachers but also neighbors and close family friends who provide guidance and mentorship. In support of this view, Tiliouine and Achoui (2018) emphasize that the Algerian family is fundamentally collectivist in structure and values, where solidarity, mutual assistance, and shared responsibility constitute core organizing principles of family life. The authors explain that extended family members and close social networks play an active role in children's upbringing, guidance, and emotional support, particularly during sensitive developmental and educational stages. This dense social fabric

reinforces adolescents' sense of security and belonging, which contributes to emotional regulation and coping with academic pressures, especially in high-stakes examination periods such as the baccalaureate. Consequently, perceived social support in the Algerian context is not limited to immediate caregivers but is embedded in a broader familial and community system that shapes students' psychological adjustment and academic engagement (Tiliouine & Achoui, 2018). Research in the region highlights that students perceiving higher social support report lower stress levels and higher academic achievement (Ben Abad & Aïssou, 2021).

2. Methodology

2.1. Participants

The study included 194 secondary school students from three public high schools in Biskra, Algeria. The sample consisted of 105 females (54%) and 89 males (46%), with ages ranging from 17 to 19 years ($M=17.8$, $SD = 0.6$). Regarding academic track, 38% were in Experimental Sciences, 32% in Mathematics, and 30% in Literature and Philosophy.

2.2. Measures

Academic self-efficacy: was assessed using the **Academic Self-Efficacy (ASE) Scale** developed by **Chemers et al. (2001)**. The scale consists of **9 items** designed to measure students' beliefs about their ability to successfully manage academic demands, particularly in relation to Baccalaureate preparation. The scale was translated and

culturally adapted for the Algerian context using a forward-backward translation procedure, and the items were reviewed by a panel of experts to ensure face and content validity.

Responses were provided on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Results from exploratory and confirmatory factor analyses supported the original theoretical structure of the scale in the Algerian context. The instrument also demonstrated good reliability, with a high internal consistency coefficient (Cronbach's $\alpha = 0.87$), indicating that the scale is a reliable measure of academic self-efficacy among students in this setting

Multidimensional Scale of Perceived Social Support (MSPSS): Perceived social support was assessed using the **Multidimensional Scale of Perceived Social Support (MSPSS)** developed by Zimet et al. (1988). The Arabic version translated and validated for the Arab context by (Tamoni, 2022) was employed. The scale consists of **12 items** measuring three dimensions:

Friend Support (Items 3, 6, 9, 12), e.g., "I can talk about my problems with my friends."

Significant Other Support (Items 1, 2, 5, 10), e.g., "There is a special person in my life who cares about my feelings."

Family Support (Items 4, 7, 8, 11), e.g., "My family really tries to help me."

Responses ranged from **1 (Strongly disagree)** to **7 (Strongly agree)**.

In the current study, the reliability coefficients for the three subscales were satisfactory: **Friend Support ($\alpha = 0.88$)**, **Significant Other Support ($\alpha = 0.79$)**, and **Family Support ($\alpha = 0.81$)**.

Demographic Data: A demographic questionnaire was used to collect information on gender, age, academic track, parents' educational level, and family socioeconomic status.

2.3. Procedure

Data collection took place between February and March 2025, approximately three months prior to the Baccalaureate examination. Authorization was obtained from the Biskra Directorate of Education, and informed verbal consent was secured from all participants. Students were assured of the confidentiality and anonymity of their responses, informed of their right to withdraw at any time, and reminded that there were no correct or incorrect answers.

The questionnaires were administered collectively during regular class periods under the supervision of the researcher. The complete administration required approximately 25 minutes, yielding a response rate of 92%.

2.4. Statistical Analysis

Analyses were conducted using SPSS v.27:

- Descriptive statistics (means, standard deviations)
- Pearson correlations to examine bivariate relationships

- Multiple regression to assess predictive power of social support dimensions
- Assumptions checked: normality, independence, linearity, homoscedasticity, multicollinearity (VIF and Tolerance)

3. Results

3.1 Descriptive Statistics

Descriptive statistics for the study variables are presented in Table 1. Academic self-efficacy among students was at a **moderate level** (M = 26.18, SD = 6.88). Regarding social support, **family support** received the highest mean score (M = 15.91, SD = 4.41), followed by support from **significant others** (M = 15.47, SD = 4.22) and **friends support** (M = 14.49, SD = 3.63). Skewness values ranged between -0.32 and 0.21, indicating **approximately normal distributions** for all variables.

Table 1. Descriptive statistics for study variables

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Academic Self-Efficacy	194	11	43	26.18	6.88
Family Support	194	4	28	15.91	4.41
Significant Others Support	194	4	28	15.47	4.22
Friends Support	194	5	27	14.49	3.63

Source: Authors’ own data

3.2 Correlations Among Variables

Pearson correlation analysis (Table 2) indicated **significant positive associations** between all dimensions of social support and academic self-efficacy ($p < 0.01$). Correlation coefficients ranged from 0.728 to 0.782, reflecting **strong relationships**. Correlations among the social support dimensions were particularly high (0.906–0.945), suggesting potential **multicollinearity** in regression analyses.

Table 2. Correlation matrix among study variables

Variable	1	2	3	4
1. Academic Self-Efficacy	1			
2. Friends Support	0.728**	1		
3. Significant Others Support	0.906**	0.777**	1	
4. Family Support	0.945**	0.914**	0.782**	1

** $p < 0.01$

Source: Authors’ own data

3.3 Predictive Role of Social Support Dimensions

A multiple regression analysis was conducted to examine the predictive effect of social support dimensions on academic self-efficacy. The model was statistically significant ($F(3,190) = 105.497, p < 0.001$) and explained **62.5% of the variance in academic self-efficacy** ($R^2 = 0.625$, Adjusted $R^2 = 0.619$). The Durbin-Watson statistic (1.923) indicated **independence of residuals**.

Table 3. Multiple regression analysis predicting academic self-efficacy (N = 194)

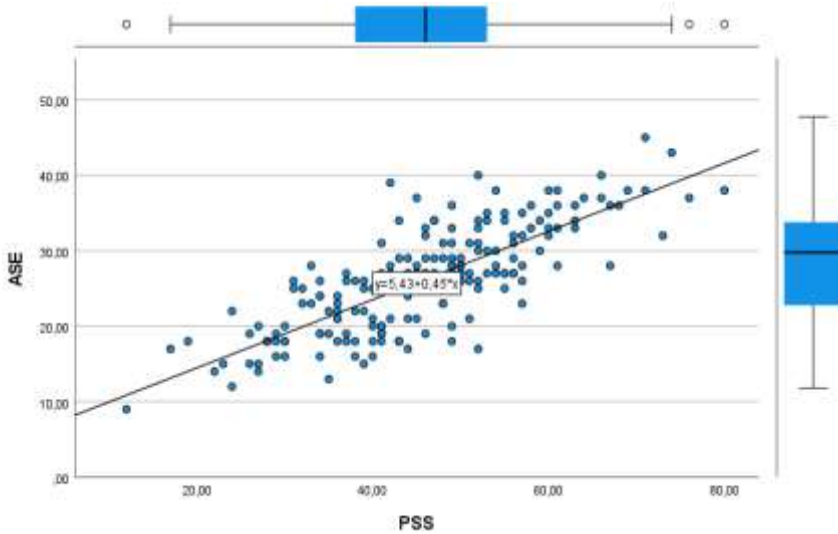
Predictor	B	Std. Error	Beta	t	p	Tolerance	VIF
(Constant)	6.189	1.263		4.900	0.000		
Friends Support	-0.028	0.219	-0.015	-0.126	0.900	0.139	7.214
Significant Others Support	0.585	0.233	0.359	2.515	0.013	0.101	9.876
Family Support	0.712	0.233	0.456	3.050	0.003	0.087	11.532

- R = 0.790
- R² = 0.625
- Adjusted R² = 0.619
- F(3,190) = 105.497, p < 0.001
- Durbin-Watson = 1.923

Source: Authors' own data

Among the predictors, **family support** ($\beta = 0.456$, $p = 0.003$) and **significant others support** ($\beta = 0.359$, $p = 0.013$) contributed significantly to the model. **Friends support** did not have a significant effect ($\beta = -0.015$, $p = 0.900$). However, high VIF values, particularly for family support (>10), and low tolerance values (<0.2) suggest moderate to severe multicollinearity, which should be considered when interpreting the results.

Fig.1. Linear relationships between perceived social support dimensions (Family, Friends, Others) and Academic Self-Efficacy (ASE).



Source: Authors' own data

4. Discussion

4.1. Overview of Findings

The current study investigated the relationship between perceived social support (PSS) and academic self-efficacy (ASE) among Algerian secondary school students, considering both the total PSS score and its three dimensions: family, friends, and significant others. The findings revealed that students' ASE was at a moderate level (M = 26.18, SD = 6.88), while PSS was highest for family support (M = 15.91), followed by significant others (M = 15.47), and friends (M = 14.49). These results reflect the collectivist nature of Algerian society, where family plays a central role in providing emotional, academic, and practical

support, reinforcing students' self-efficacy and coping mechanisms (Tiliouine & Achoui, 2018). The prominence of family support over peer support is consistent with findings in other collectivist contexts, where adolescents tend to value and depend on family guidance more than on peer encouragement, especially in academically stressful periods (Al-Khatib, 2021; Ben Abad & Aïssou, 2021). The slightly lower levels of friends support do not imply that peers are unimportant but rather suggest that, under high-stress circumstances, their support may be less salient or perceived as less effective in fostering academic self-confidence.

Relationship Between ASE and Social Support Dimensions

Pearson correlation analysis indicated significant positive associations between ASE and all PSS dimensions ($r = 0.728\text{--}0.782$, $p < 0.01$). These strong correlations confirm that students who perceive higher social support exhibit greater confidence in their academic abilities. The particularly high inter-correlations among social support dimensions ($r = 0.906\text{--}0.945$) suggest that in the Algerian context, support from family, peers, and significant others operates as an integrated system rather than in isolation. This aligns with previous research in Arab contexts, which highlights the overlapping and reinforcing nature of social support networks during adolescence (Al-Khatib, 2021; Ben Youssef & Tabchi, 2024).

Predictive Power of Social Support Dimensions

Multiple regression analysis revealed that family support ($\beta = 0.456$,

$p = 0.003$) and significant others support ($\beta = 0.359$, $p = 0.013$) were significant predictors of ASE, while friends support was not ($\beta = -0.015$, $p = 0.900$). The model explained 62.5% of the variance in ASE ($R^2 = 0.625$), demonstrating that adult-provided support plays a crucial role in students' academic confidence, particularly during high-stakes exams. This finding is consistent with Bandura's social cognitive theory, which emphasizes that self-efficacy beliefs are shaped through interactions with supportive adults, and with the stress-buffering hypothesis (Cohen & Wills, 1985), which posits that social support mitigates negative stress effects.

The non-significant effect of friends support suggests that peer influence may be limited in the context of high-stakes examinations like the Baccalaureate. This observation resonates with Algerian studies showing that adolescents rely primarily on parents and teachers during stressful academic periods (Ben Abad & Aïssou, 2021). Cultural norms emphasizing adult authority and guidance may further explain the stronger predictive power of family and significant others over peers.

Integration with Previous Research

The present findings support and extend prior research. For example, (Al-Khatib, 2021) found that all social support dimensions were positively correlated with ASE among Jordanian students; however, in the Algerian context, family and significant others are more influential than friends, highlighting the role of cultural and contextual differences. Moreover, the results align with studies showing that social support influences ASE indirectly by enhancing security, motivation, and

emotional regulation (Chen, Zhu, & Xiao, 2024); (Laksmiwati & Tondok, 2023). This underscores the importance of examining support as a multidimensional construct rather than a single global measure.

Cultural and Practical Implications

The results have significant educational and policy implications. Interventions aimed at enhancing ASE should focus on strengthening family engagement and providing mentoring from significant adults, such as teachers or community members. Peer support alone may not be sufficient to enhance ASE during high-stress periods, but could complement adult guidance to promote resilience. In practical terms, schools could implement family–school collaboration programs and mentorship initiatives to reinforce students’ self-efficacy. This is particularly relevant in the Algerian educational context, where the Baccalaureate exam represents a highly stressful milestone, and students’ psychological well-being is closely linked to familial and social networks.

Limitations and Future Directions

Despite the robustness of the findings, several limitations should be noted. First, the cross-sectional design prevents causal inferences. Second, reliance on self-report questionnaires may introduce social desirability bias. Third, the high multicollinearity among social support predictors ($VIF > 10$ for family support) indicates that the effects of individual dimensions should be interpreted cautiously. Future studies should employ longitudinal designs, include objective academic

performance measures, and examine potential mediators or moderators such as stress, motivation, or coping strategies. Additionally, exploring interventions that strengthen family and significant other support could provide practical guidance for improving ASE in high-stakes educational contexts.

Conclusion

In conclusion, the study demonstrates that perceived social support, particularly from family and significant others, is a strong predictor of academic self-efficacy among Algerian secondary school students. Friends support, while positively correlated with ASE, does not significantly predict it during high-stakes examinations. These findings highlight the critical role of culturally embedded support networks in promoting academic confidence, coping, and resilience, emphasizing the need for educational policies and interventions that leverage family and community resources to optimize student outcomes.

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