

The Academic Failure Model of the Senior Students of Mazandaran Province based on the Socio-Economic Position and Family Social Capital with the Mediation of Family Chaos

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Purpose: Today, the issue of academic failure is one of the most important and scrutinized factors in educational systems and examining the effective factors on it can help in better understanding this phenomenon and providing solutions to its reduce. Therefore, the current research was conducted with the aim of modeling the academic failure of senior students based on the socio-economic position and family social capital with the mediation of family chaos.

Methodology: This study in terms of purpose was applied and in terms of implementation method was quantitative from type of correlational. The population of the present research was the senior students of Mazandaran province, which 170 people of them were selected as a sample by cluster sampling method. The research tool was a researcher-made questionnaire of effective social factors on academic failure, which had four components of academic failure, socio-economic position, family social capital and family chaos. The face validity of the questionnaire was confirmed by education specialists and experts and its reliability was obtained with Cronbach's alpha method above 0.70. The data were analyzed with tests of regression and structural equation modeling from type of path analysis in SPSS and LISREL software.

Findings: The findings showed that all three variables of socio-economic position, family social capital and family chaos separately had a significant correlation with the academic failure of senior students and were able to predict the 31.0%, 20.2% and 22.9% of the changes of their academic failure, respectively. Also, all the three mentioned variables together could predict 51.6% of the changes of academic failure of senior students. In addition, the academic failure model of senior students based on the socio-economic position and family social capital with the mediation of family chaos had a good fit, and in this model, the variables of socio-economic position and family social capital on family chaos and academic failure and the variable of family chaos on academic failure had a direct and significant effect and the variables of socio-economic position and family social capital with the mediation of family chaos had an indirect and significant effect on academic failure ($P < 0.001$).

Conclusion: According to the results of this study, in order to reduce the academic failure of senior students can provide the basis for improving the socio-economic position, increasing the family social capital and reducing the family chaos.

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1. Introduction

One of the issues in educational systems is academic decline, and an efficient and effective educational system has the least academic decline and the highest educational yield or satisfactory academic performance, which prevents time wastage and country expenses and causes psychological and social problems (Costa, Fonseca, Santana, De Araujo & Rego, 2017). The topic or issue of academic decline is one of the oldest and most well-known issues and problems in education, which can be referred to as an educational harm (Mingo, 2023). For students to succeed and achieve their educational goals, they must complete their academic courses. However, they may encounter obstacles that slow down or halt their progress, resulting in what is known as academic decline (Lee, 2017). Academic decline is one of the major concerns of families and educational system stakeholders, and each year, many learners face this phenomenon, which, in addition to significant economic losses, also has adverse psychological effects on students (Afshari, 2019). In terminology, decline means deficiency and shortcoming, and academic decline indicates a decrease in the educational and academic performance of learners from a satisfactory and desirable level (Titova, Hogenkamp, Jacobsson, Feldman, Schioth & Benedict, 2015). Manifestations of academic decline include different aspects of academic failure such as absolute absence from school, dropping out before the scheduled time, repeating a grade, poor quality of students' studies, and other related matters (Fwu, Chen, Wei & Wang, 2018). Therefore, one can talk about academic decline when there is a significant and notable gap between students' abilities and talents and their performance, and the student is unable to demonstrate their ability and talent in the field of education (Van Vemde, Donker & Mainhard, 2022).

One of the factors affecting academic decline is socio-economic status, which combines a person's work experience in terms of economic and sociological status and the economic and social status of a person or family in relation to others based on income, education, and occupation (Khalaj Amiri & Abolmaali Alhoseini, 2020). This status, according to Bronfenbrenner's ecological systems theory or Bandura's social cognitive theory, can affect people's behaviors (McCrory, Fiorito, Vheallaigh, Polidoro, Karisola, Alenius & et al, 2019). The mentioned status is the position a person holds within a group, i.e., it represents the socio-economic rank of a person or group compared to other individuals and groups (Mawson & Gaysina, 2021). People with higher socio-economic status, unlike those with lower status, are more likely to participate in various activities, including social, cultural, economic, and even educational activities (Aartsen, Veenstra & Hansen, 2017). This status, like other individual and environmental factors associated with undesirable and deviant behaviors, can increase the desired behaviors, including academic decline (Hvidberg, Wulff, Pedersen & Vedsted, 2015). Students with lower socio-economic status face more problems and difficulties in socialization and having desirable behaviors and are more inclined to belong to groups with destructive or undesirable behaviors (like having academic decline) (Barone, Hertel & Smallenbroek, 2022). The most important components of this status include a combination of education and training, income, employment, wealth, etc., which greatly impact the health and quality of life of individuals (Costa, Hatzidimitriadou, Ioannidi-Kapolou, Lindert, Soares, Sundin & et al, 2016). Changing and improving the socio-economic status leads to changes in the cognitive-cultural structure and improves and reforms social, cultural, and cognitive behaviors (Bertogg & Koos, 2021).

Another factor affecting academic decline is family social capital. Social capital is a concept in actions and reactions, behaviors, and social relations that individuals gain through connecting with others (Westphaln, Fry-Bowers, Birchfield, Lee & Ronis, 2022). This capital is a social resource for support that society members provide for each other through social networks and trustworthy and reciprocal behaviors (Somefun & Fotso, 2020). Unlike human and economic capital, social capital is not physical and material tools but is embedded in the structure of actors' relationships and their relations, resulting from mutual trust, social interaction, social groups, and a sense of social identity (Haghparast Limoudehi, Kazempour, Abbasi & Yar Mohammad Touski, 2018). Such capital enables situations and relations in groups and social networks to increase access to opportunities, information, material resources, and social status for

individuals (Azizi, Salmani Bidgoli, Maley & Dabic, 2022). One of the producers of social capital is the family, and the family and the level of communication among its members can create social capital for all members (Li & Hua, 2023). The presence of family social capital enables the family to better utilize its resources and capabilities in playing roles and demonstrating desirable behaviors in society (Sorenson & Milbrandt, 2022). This capital includes the relationships among family members, the habit of problem-solving and talking to each other, and each family member's awareness of the strengths, weaknesses, and achievements of other family members (Carrillo-Alvarez, Villalonga-Olives, Riera-Romani & Kawachi, 2019). Family social capital represents the social network of relationships among all family members, including adults and children, which is used for child-rearing in three aspects of the social structure: parent-child relationships, relationships among parents or adults, and the continuity of family relationships (Furukawa & Greiner, 2020).

One of the factors that can mediate between academic decline, socio-economic status, and family social capital is family dysfunction. The family is the first environment that has the most significant impact on children's behaviors and can even somewhat moderate children's susceptibility to other factors and environments (Fronberg, Bai & Teti, 2022). Furthermore, as the smallest social unit, the family is the most vulnerable group to social harms; most problems and harms first appear in the family and, if not prevented, lead to family dysfunction (Rochmawati, Huda, Kuncoro & Setyowati, 2021). A dysfunctional family is one that has lost its positive function for various reasons and cannot meet the emotional, social, economic, etc., needs of its members. Moreover, such families cannot protect their members from social and cultural harms and deviations (Fiese, Gundersen, Koester & Jones, 2016). In dysfunctional families, behaviors such as family turmoil (such as significant age difference between parents, improper parenting behaviors, lack of a stable family, misunderstandings and violence between parents, parental indifference and negligence, conflicts with stepparents, and physical violence against a person), neglect and lack of support (such as feeling superfluous and not having a place in the family, lack of affection, indifference and inattention, neglect of individual financial needs, distrustful parents, educational and emotional deprivation, shouldering family responsibilities, emotional distance from parents and closeness to others, and suicidal thoughts and behaviors in response to lack of support), and anti-social family actions (such as theft, deception, betrayal, and bullying) are observed (Habibi Asgarabad, Falahatpishe, Shamshiri & Sadeghi, 2016). Family dysfunction and the breakdown of its foundations are issues that not only threaten the security and mental health of family members and expose them to vulnerability but also pave the way for social problems and a decline in security and mental health in society (Weinstein, Pugach, Rosales & Martin, 2018).

Few studies have been conducted on the relationships between socio-economic status, family social capital, family dysfunction, and academic decline, and the most relevant ones are reported here. Sciffer, Perry, and McConney (2022), in a study on the socio-economic status of schools and academic growth and progress, concluded that improving socio-economic status plays an effective role in students' academic growth and progress. Akrami, Barzegar Bafrooie, and Shakeri (2021) found a significant relationship between socio-economic status, parents' religious attitudes, and domestic violence. Booysen, Botha, and Wouters (2021), in a study on socio-economic status, family structure, family performance, and general health, found a significant relationship between socio-economic status and family structure and performance. Also, Salehi, Pahlavan, and Shojaii (2019) concluded that socio-economic status, social capital, educational performance control, and educational facilities had a significant relationship with academic decline in high school students. Dehghan and Mahdiserajiyani (2017) found that family social capital had a direct and significant effect on the academic success of male and female high school students. Kordi and Ghazanfari (2015), in a study on family social capital and children's academic success, concluded that internal and external family social capital had a positive and significant correlation with high school students' academic success. Babazadeh and Rasoulzadeh (2015), in a study on family social capital and the academic success of female students, found a significant relationship between internal and external family social structures and cognitive structures and academic success. Additionally, Javadian and Zeydabadi Nezhad (2019), in a study

on family social capital and desirable social behaviors of students, found a positive and significant correlation between family social capital and students' desirable social behaviors. Mahdi Moghaddam and Kadkhodaei (2023) concluded that family conflicts and family structure lead to increased academic decline and decreased academic progress in students. Dadfar, Bazdar, Nasrollahi, Abdolhosaini, and Ahmadi (2013) found that family dysfunction and problems had a positive and significant correlation with academic decline. One of the concerns of the educational system and families is the academic decline of learners, which has been reported to be as high as 33%. Efforts have been made to prevent academic decline using measures such as experienced teachers, educational aids, incentives and punishment, and improving learning skills (Mahmoudi and Mahdizadeh Ashrafi, 2019). One reason for the importance of examining academic decline is the dependence of students' futures on their success in education, and students' satisfactory academic performance is a hopeful and pleasing phenomenon for students, families, and communities. Another important point is that dysfunctional families, as an influential factor in shaping various behaviors and performances, including academic decline, have been less examined or not examined at all. Moreover, academic decline is a significant and investigable factor in educational systems today, and examining its influential factors can help better understand this phenomenon and offer solutions for its reduction. Therefore, the present study was conducted to model the academic decline of high school students based on socio-economic status and family social capital, with family dysfunction as a mediator.

2. Methodology

This study was practical in purpose and correlational in execution. The research population was high school students in Mazandaran Province, with 170 selected using cluster sampling. For sampling, a list of schools and their classes was determined, and then some were randomly selected, with all students in these classes selected as samples if they met the study's entry criteria. Entry criteria included willingness to participate in the research and complete the tools, living with parents, no stressful events like death or divorce in the last three months, no psychological services in the last three months, and no psychiatric medications. Exit criteria included withdrawal from completing the research tools and failure to answer more than ten percent of the items and questions.

The research instrument was a researcher-made questionnaire on social factors affecting academic decline, with four components: academic decline, socio-economic status, family social capital, and family dysfunction. A five-option scale was used for the questionnaire (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree), scored respectively with 5, 4, 3, 2, and 1. Students were asked to indicate their agreement by marking one of the options for each item. Valid instruments must have reliability and validity, and in this study, the face validity of the researcher-made questionnaire on social factors affecting academic decline was confirmed by educational experts and specialists, and its reliability was determined using Cronbach's alpha for the four components: academic decline, socio-economic status, family social capital, and family dysfunction, respectively, as 0.82, 0.76, 0.87, and 0.78.

The research process involved designing and constructing the tools, sampling, and explaining the importance and necessity of the research and ethical considerations to the samples, i.e., high school students and school executives. After explaining the importance and necessity of the research and ethical considerations, the samples were asked to express their consent to participate in the research. After the high school students consented, they were asked to carefully read the questions and items of the research tools and answer them honestly. After completing the tools, they were thanked and appreciated. Finally, the data from the researcher-made questionnaire on social factors affecting academic decline were entered into SPSS and LISREL software and analyzed using regression tests and structural equation modeling, specifically path analysis.

3. Findings

In this study, regression analysis was used to determine the relationship and predictability. The results of the relationship and prediction of academic decline in high school students based on socio-economic status were reported in Table 1.

Table 1. The results of the relationship and prediction of academic decline in high school students based on socio-economic status

Model	R	R ²	F Change	Sig	B	SE	Beta	T	Sig
1	-0.557	0.310	75.418	0.001	-2.703	0.107	-0.557	-25.265	0.001

Table 1 findings showed that the socio-economic status variable had a negative and significant correlation with the academic decline of high school students and could predict 31% of their academic decline changes. The results of the relationship and prediction of academic decline in high school students based on family social capital were reported in Table 2.

Table 2. The results of the relationship and prediction of academic decline in high school students based on family social capital

Model	R	R ²	F Change	Sig	B	SE	Beta	T	Sig
1	-0.449	0.202	42.417	0.001	-2.546	0.116	-0.449	-21.955	0.001

Table 2 findings showed that the family social capital variable had a negative and significant correlation with the academic decline of high school students and could predict 20.2% of their academic decline changes. The results of the relationship and prediction of academic decline in high school students based on family dysfunction were reported in Table 3.

Table 3. The results of the relationship and prediction of academic decline in high school students based on family dysfunction

Model	R	R ²	F Change	Sig	B	SE	Beta	T	Sig
1	0.479	0.229	49.767	0.001	0.954	0.137	0.478	6.963	0.001

Table 3 findings showed that the family dysfunction variable had a positive and significant correlation with the academic decline of high school students and could predict 22.9% of their academic decline changes. The results of the relationship and prediction of academic decline in high school students based on socio-economic status, family social capital, and family dysfunction were reported in Table 4.

Table 4. The results of the relationship and prediction of academic decline in high school students based on socio-economic status, family social capital, and family dysfunction

Model	Variable	R	R ²	F Change	Sig	B	SE	Beta	T	Sig
1	Socio-economic status	0.718	0.516	24.501	0.001	-0.178	0.050	-0.232	-3.539	0.001
	Family social capital					-0.218	0.065	-0.222	-3.371	0.001
	Family dysfunction					0.354	0.057	0.358	6.206	0.001

Table 4 findings showed that the variables of socio-economic status, family social capital, and family dysfunction had a significant correlation with the academic decline of high school students and could predict 51.6% of their academic decline changes.

In this study, path analysis was used to determine the model fit and design. The results of examining the fit indices of the model of academic decline in high school students based on socio-economic status and family social capital, with family dysfunction as a mediator, indicated an appropriate fit for the model due to the

RMSEA index being less than 0.10 and the GFI, AGFI, NFI, NNFI, CFI, and IFI indices being more than 0.90. The effects in the model of academic decline in high school students based on socio-economic status and family social capital, with family dysfunction as a mediator, were reported in Table 5 and Figure 1.

Table 5. The results of the the effects in the model of academic decline in high school students based on socio-economic status and family social capital, with family dysfunction as a mediator

Effect	Path coefficient	t	Sig
The direct effect of socio-economic status on family dysfunction	-0.183	0.964	0.002
The direct effect of socio-economic status on academic decline	-0.232	-3.539	0.001
The direct effect of family social capital on family dysfunction	-0.169	2-.855	0.005
The direct effect of family social capital on academic decline	-0.222	-3.371	0.001
The direct effect of family dysfunction on academic decline	0.358	6.206	0.001
The indirect effect of socio-economic status on academic decline mediated by family dysfunction	-0.065	2.281	0.031
The indirect effect of family social capital on academic decline mediated by family dysfunction	0.060	2.143	0.035

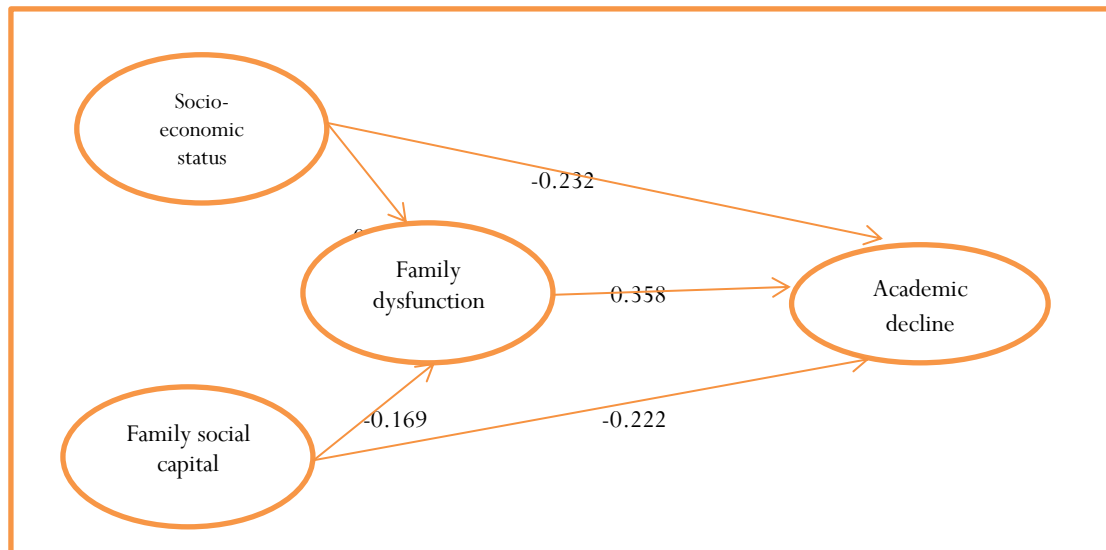


Figure 1. The model of academic decline in high school students based on socio-economic status and family social capital, with family dysfunction as a mediator

Table 5 and Figure 1 findings showed that the variables of socio-economic status and family social capital had direct and significant effects on family dysfunction and academic decline, and the family dysfunction variable had a direct and significant effect on academic decline. The variables of socio-economic status and family social capital, with family dysfunction as a mediator, had indirect and significant effects on academic decline ($P < 0.001$).

4. Discussion

The ultimate goal of dynamic educational planning and the focus of all activities in education is students and the improvement of their educational and academic performance. Consequently, examining the factors affecting their academic decline to understand the current situation and design programs to reduce academic decline and improve academic performance is of great importance. Therefore, the present study

aimed to model the academic decline of high school students based on socio-economic status and family social capital with family dysfunction as a mediator.

The findings of this study showed that socio-economic status had a negative and significant correlation with the academic decline of high school students and significantly predicted their academic decline. Additionally, the direct effect of socio-economic status on family dysfunction and the academic decline of high school students was negative and significant. These findings align with research by Sciffer et al. (2022), Akrami et al. (2021), Booysen et al. (2021), and Salehi et al. (2019). It can be interpreted that social class determines socio-economic status, with individuals in a social class generally sharing a similar background in terms of wealth, power, and social prestige. People and groups in a social class often share many similarities in values, attitudes, and behaviors, and their lifestyle differs from other social classes. People from various social classes may not have equal opportunities to access educational facilities, leading to challenges in education for some classes. Higher socio-economic status, such as higher education level, enhances the quality of recreational activities and health standards. Higher income can provide conditions for children's activities in groups and educational academies, fostering academic growth and preventing academic decline. Another important point is that being in a weak socio-economic position, due to economic, cultural, and social weaknesses, increases family problems and difficulties in interacting with other family members. Therefore, it is logical that socio-economic status is related to the academic decline of high school students, can predict it, and significantly impact family dysfunction and their academic decline.

Other findings of this study showed that family social capital had a negative and significant correlation with the academic decline of high school students and significantly predicted their academic decline. Additionally, the direct effect of family social capital on family dysfunction and the academic decline of high school students was negative and significant. These findings are consistent with research by Salehi et al. (2019), Dehghan and Mahdiserajiyani (2017), Kordi and Ghazanfari (2015), Babazadeh and Rasoulzadeh (2015), and Javadian and Zeydabadi Nezhad (2019). It can be said that family social capital can be studied as a sociological phenomenon because it is a social matter both at the level of marital relationship, participation, communication, and expectations from each other, and based on a socially accepted pattern with norms and values. Family social capital is important, and family collapse affects trust-based social relationships and severely reduces social capital. This construct represents a group, social network, and relationships between adults and children, which is very important and crucial throughout life and for all family members, especially children, during childhood and adolescence. Family social capital ensures that children and adolescents see their parents as supporters, and in times of educational problems and challenges, they seek help from their family. Moreover, families with high perceived social capital face fewer tensions and challenges, and all family members interact within a suitable and desirable behavioral framework, helping and responding to each other. Therefore, it is logical that family social capital is related to the academic decline of high school students, can predict it, and significantly impact family dysfunction and their academic decline.

Other findings of this study showed that family dysfunction had a negative and significant correlation with the academic decline of high school students and significantly predicted their academic decline. Moreover, the direct effect of family dysfunction on the academic decline of high school students was positive and significant. These findings align with research by Mahdi Moghaddam and Kadkhodaei (2023) and Dadfar et al. (2013). It can be said that a warm family atmosphere is the most suitable place for nurturing children's talents and abilities. Children in an environment filled with parental love and affection learn many educational and nurturing contents. If a family becomes dysfunctional and lacks any warmth and affection, children's problems usually start with mischief and noise and lead to various delinquencies, including academic decline and dropout. In dysfunctional families, the family situation is confused and fraught with conflict and strife between family members, especially parents, and the emergence of aggressive and violent behaviors. Such conditions make children anxious and insecure, leading them to withdraw from family members, especially parents, and creating conditions for the emergence of undesirable behaviors, including

academic decline. Therefore, it is logical that family dysfunction is related to the academic decline of high school students, can predict it, and significantly impact it.

Additionally, the findings of this study showed that the indirect effect of socio-economic status and family social capital, mediated by family dysfunction, on the academic decline of high school students was significant. Although no research was found in this regard, it can be said that socio-economic status and family social capital can affect students' academic decline through cognitive and motivational mechanisms. The most important cognitive mechanisms include individual and family beliefs and perceptions of abilities, the use of study and learning strategies, and family assistance in this regard. The most important motivational mechanisms include having a positive attitude towards education and the presence of such an attitude in the family, the desire to continue education, and valuing education. Family dysfunction has both cognitive and motivational aspects, as it leads to increased beliefs in the inability to continue education, improper use of study and learning strategies, lack of desire to continue education, and a low sense of value for education due to cultural poverty. Since family dysfunction has cognitive and motivational aspects, it can be an appropriate mediator between socio-economic status and family social capital with academic decline in students. Therefore, it is logical that socio-economic status and family social capital, mediated by family dysfunction, significantly impact the academic decline of high school students.

Limitations of this study include low awareness of some respondents and limitations arising from respondents' behavior and reactions, and uncontrolled variables such as low motivation of some respondents and their weak participation in implementing and completing the questionnaire. The results of this study will be useful in better understanding the factors affecting academic decline and assisting researchers in conducting extensive and challenging research activities, as well as improving research methods in the field of academic decline factors. Considering the findings and researchers' experience and theoretical discussions, it appears that the difference in talents and sudden changes in multiple real needs is a reality that will find a more tangible manifestation during the high school years. Therefore, to reduce the academic decline of students, it is suggested:

Constructive interaction with students experiencing family dysfunction is essential, as such problems negatively affect the mental peace and psychological balance of family members, students' academic decline, and even their social relationships. Therefore, by creating a positive emotional environment and participating in decision-making, it is possible to influence parental acceptance and role modeling. Consequently, it is necessary to identify these students with the help of counselors and provide them with material and non-material support, including social support.

Educational and awareness-raising meetings should be held for school principals with families to enhance mutual relations, understand and solve students' problems, and improve their academic decline conditions. Appointing expert counselors can increase positive interactions between students and their families and vice versa, benefiting both the educational functioning of schools and the reduction of students' academic decline.

Additionally, understanding the role of socio-economic status and family social capital and enhancing family members' awareness and changing the socio-economic status towards economic-social mobility can create favorable conditions for students' progress.

Ethical Considerations

In this study, the authors endeavored to adhere to all ethical standards.

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Authors' Contributions

In this study, the student was responsible for collecting and analyzing data, and the professors were responsible for verifying the accuracy of the analyses and writing the article.

Conflict of Interest

There were no conflicts of interest among the authors of this study.

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