Original Research

A Model for Predicting Social Competence from Resilience by Interpreting the Mediating Role of Academic Adjustment of Medical Students of Mazandaran

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Abstract

Introduction: Developing social competence is considered as one of the best predictors of academic and social success as well as conducting behavior in the present and future. The aim of this research was to present a structural model with regards to relationship between resilience and social competence by interpreting the mediating role of academic adjustment.

Methods: In terms of objective, this research is applied, and regarding the method, it is descriptive correlational. The statistical population consisted of all students studying at Mazandaran University of medical sciences in the second half of 2018-2019 academic year and first half of 2019-2020. Using proportionate stratified sampling method, a sample of 320 students was chosen. For data collection, Felner social competence, Conner and Davidson resilience (2003), and Baker and Seriak academic adjustment (1986) questionnaires were used. To determine the validity of the questionnaires, content validity and confirmatory factor analysis were used. Also, internal consistency of the questionnaires was obtained based on Cronbach alpha coefficients as 0.89, 0.83, and 0.94, respectively. In the descriptive statistics, mean and standard deviation were used. To examine the correlation, Pearson correlation coefficient, and for testing hypotheses, path analysis modeling method was used.

Results: The results of Pearson correlation coefficient indicated that there is a significant relationship between resilience and academic adjustment (r=0.57), resilience and social competence (r=0.596), as well as academic adjustment and social competence (r=0.599). Also, the results obtained from path analysis indicated that the past coefficient between resilience and academic adjustment (t=0.33, ß =4.19), resilience and social competence (t=0.15, ß =2.12), and academic adjustment and social competence (t=4.38, ß =0.28) were confirmed to be significant.

Conclusion: According to the results of research on resilience training interventions such as cognitive behavioral programming (CBT), mindfulness-based interventions are recommended to increase resilience.

Keywords: resilience, social competence, academic adjustment.

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Introduction

A review on youth psychology history in the past indicates that factors such as school, university, society, and peers were considered as unidimensional, and they sought the cause of problem in one factor; however various psychological and sociological views of the

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new era are based on the fact that one factor alone cannot determine the behavior of individuals. Rather, various factors are involved in the development and formation of a behavior, and they try to determine the share of each factor in forming the behavior (1).

Studentship is a new stage of life, and in order for students to have better efficiency they should reach social competence. Durlak, Weissberg & Pachan (2) stated that social competence is an essential component for mental health and psychological adaptation. Social competence refers to the ability of individuals to act in an adaptive way in line with their age and cognitive abilities (3). In other words, social competence involves information and skills enabling the person to perform their occupational duties and daily exchanges of life (4). Social competence covers factors such as self-awareness, social awareness, self-management, communication skills, and decision-making responsibility (5). The central core of social competence is communication skills, as all other components are aquired through these skills (6). There are three important aspects in social competence: the ability of establishing healthy and positive interpersonal relationships and resolving conflicts, clear development of self-identity in a group or collective identity (including national identity), and tendency to a responsible and sympathetic citizen (7). Felner et al. (1990) believed that social competence has four components: a) cognitive skills including reserve of information and processing skills as well as information acquisition, decision-making ability, efficient and inefficient beliefs, and attributional styles; b) behavioral skills: when the person chooses a behavior to achieve the desired outcome, that behavior should be available. Negotiation, role-playing, self-expression, and colloquial skills for initiating and sustaining social interactions, skills for learning friendly behavior towards others are the main components of behavioral skills; c) emotional skills: they are essential to establish positive relations with others, create and develop trust as well as mutual support relations, identification and proper response to emotional signals in social interactions or stress management; d) motivational skills: personal valuables structure, the level of moral development, sense of effectiveness, personal control, and eventually sense of self-efficacy (8). Reitz (9) emphasized differentiation between social competence and proper social behavior. For example, when a person's behavior does not lead to desired outcomes under certain conditions, they may be socially competent; nevertheless, it is undeniable that a person who has well developed regarding social competence is more likely to show and conduct a proper social behavior when compared to others. Overall, Reitz (2012) states that proper social behavior is a behavior which under certain conditions leads to progress of objectives and concurrently guarantees the social approval of that behavior. However, social competence is a set of skills

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and knowledge of the person determining the quality of the proper social behavior (quoted by 10). Lack of a common understanding about social competence leads to research with incomplete and effective results in that how individuals successfully achieve social competence. Indeed, the outcome of this issue is the necessity of a common viewpoint about variables associated with social competence. For example, how these variables interact with each other.

On the other hand, presence at university confronts students with experiences and opportunities for psychosocial transformation, such that in some cases it is considered an acute source of pressure for them. Without successful adaptation to the university, students may withdraw from the university or find various problems regarding educational adjustment. Deficiencies in this regard can have detrimental consequences including abnormalities, sense of insecurity, as well as personality, emotional, and behavioral problems along with delinquency. Adjustment is a general concept and refers to all strategies a person applies to manage the stressful situations of life including both real and unreal threats (11). The adjustment concept has been introduced from biology to psychology. Indeed, this concept has been adapted from their biological concept of adaptation. Adaptation refers to the attempts made by a special type of living creature to adapt to or create changes in their environment (12). However, adjustment is a dynamic process through which the organism tries to establish a balance between what they do or want to do, as well as with what the environment or society demands (13). Adjustment has various dimensions; for example, Sinha and Singh (1993) have categorized it into three major types: academic, social, and emotional adjustment (14). Academic adjustment reversed the ability of learners to adjust to the conditions and essentials of education and the roles the academic environment puts ahead of them as a social Institute (15). Abdullah considers academic adjustment as satisfaction with academic environment and conducting activities that enhance effective academic performance. The period of education is a period of life in which rapid cognitive and social changes occur. Accordingly, educational adjustment has been of interest to educational researchers as one of the general dimensions of psychosocial adjustment. Many attempts have been made to determine the factors affecting it by researchers (16). Baker & Siryk (1986) have introduced some components of academic adjustment including motivation for learning, doing actions for fulfilling the academic necessities and demands, having a clear understanding of academic goals and general satisfaction with the academic environment(17). Roeser, Eccles & Sameroff (2000) believe that the students who face problems with academic adjustment will probably also challenge in other dimensions of life. In psychology, adjustment is assumed as a relatively conscious process, based on which

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the person adjusts themselves to the social, natural, or cultural environment. This adjustment necessitates the person to change themselves or create active changes in their environment, thereby creating a coordination between the person and environment(18). Sedighi, Yazdkhasti, and Nadi (2014) also stated the positive effect of academic adjustment on social competence. Since any educational system in all societies try to achieve social competence among graduates, thus such research seems to be missing(19).

The researcher thought that what factors can influence social competence and academic adjustment. Resilience is one of the variables of interest to positive psychologists which is defined as a dynamic process, and a pervasive and positive adjustment under overwhelming conditions (20). Resilience refers to the ability of persistence and resistance against shattering challenges of life, and involves dynamic processes creating positive adaptation to important and negative events (21). Those with a better psychological resilience can also better tolerate problems to achieve their goals (22). Resilience in learners is fostered through creating and enhancing self-belief as well as providing success opportunities in the learner. Here, the learners come to the belief that the key to progress is endeavor and use of strategies under their own control. In other words, learners will have greater sense of control on their academic situation (23). This sense of control over conditions and believing in oneself in achieving success yield greater endeavor, such that the learners do not quit attempting easily and will have greater commitment and persistence to master the learning content, and are less affected by fear of failure (24). In this way, academic resilience consists of self-belief, self-confidence, sense of control, and persistence (commitment). In academic life, some events may occur requiring students to have some characteristics and skills such as resilience (25). Beyrami et al. (26) emphasized the relationship between resilience and social competence; knowledge about resilience may help develop interventions for improving positive outcomes or reducing negative outcomes. Resilience can be considered as a defense mechanism, empowering individuals to have persistence when confronting difficulties and improving psychological health, while also enhancing social competence (27). Also, resilient students can well overcome the problems that arise and take steps towards their academic goals and success. Hence, it is expected that resilience would help academic adjustment followed by more desired academic performance in students with various challenges during their academic program. Also, based on the results of Anasuri & Anthony (2018), regarding scientific value, the information obtained from the present study can be used by the educational system, professors, and parents to enhance resilience(28). Based on the results of Haktanir et al. (29), resilience, as a psychological insight, introduce academic adjustment as promising in individual mind,

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and thus facilitates sense of academic adjustment. Since any educational system in all societies tries to achieve social competence among their graduates, thus such research to examine its relationship with social competence seems to be missing. Regarding resilience various studies have been performed, but their relationship with the variable of social competence and academic adjustment of the students has remained understudied.

The aim of this research is to investigate the relationship between resilience and social competence with the mediating role of academic adjustment among students. The researcher tries to fit the following model.

Method

The present research is of applied type regarding objective, as the research outcomes can be practical at universities and counseling centers. Regarding methodology, it is descriptive correlational, since it deals with interpreting the relationship between resilience and academic adjustment, without any manipulation in the relevant variable. Correlation research is one of the descriptive methods (nonexperimental) which examines the relationship between variables based on the research objective. The statistical population of this research consisted of all students studying at Mazandaran University of medical sciences in the second semester of academic year 2018-2019 and first semester of 2019-2020. To estimate the sample size, since this research has been correlational and we want to interpret the variable of social competence based on three variables of health promoting lifestyle, resilience, and academic adjustment, many references have stated 40 individuals per every questionnaire (30). Nevertheless, since the researcher wants to perform a confirmatory factor analysis, many references have stated to choose around 10 subjects for every questionnaire item, and typically the maximum sample size is 300 individuals (31). In order to ensure adequate completion of questionnaires, the researcher has chosen 320 samples. Regarding the gender diversity of the statistical population, proportionate stratified sampling method was performed from different faculties (six faculties), whereby 320 students were chosen as the sample. To acquire permission for questionnaire distribution, after receiving ethics code, the required coordination was established with the research deputy of Mazandaran University of medical sciences, who permitted the distribution and completion of the questionnaire by the medical students in a paper form. Based on the type of the proposal implemented and observing ethical considerations, before starting the procedure, oral consent was taken from the participants. Before the distribution of questionnaires, the research topic and initial information about that were given to the participants and they were asked to answer the questions honestly. The questionnaires were provided to the respondents. Then, the guideline of questionnaire response was read, and if required, some explanations were given about

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the method of completion. To protect the private and personal information and ensure confidentiality of information, emphasis was made not to write any name or precise personal data on the questionnaires. The subjects were also told that the information would be interpreted collectively, and in case they wished, the research results would be reported to them subsequently. In order to prevent the actor-observer effect and to ease the fatigue of subjects, the questionnaires were provided to the participants randomly, and they were assured that participation in the research would have absolutely no financial burden for them. Further, during participation, the participants we are free to quit, and at the end the cooperation of the subjects was appreciated. After completion of questionnaires, those with incomplete answers or with no answers were excluded from the entire set of questionnaires. In the present research, descriptive and inferential statistics were used. In the descriptive statistics, using SPSS 24, indices such as mean and standard deviation were used to represent the status of data alongside Pearson correlation coefficient. In the inferential statistics part of this study, using Lisrel software, confirmatory factor analysis was applied to evaluate the fit of the measurement models of latent variables. In other words, this step dealt with the fact that whether the observed sizes well and properly measured the latent constructs or not. The model assessed in this research included two latent variables of social competence and academic adjustment. In the second part of inferential statistics, modeling and path analysis were used to evaluate the mothers based on chi-square, chi-square to degree of freedom ratio, goodness of fit index (GFI), NNFI, comparative fit index (CFI), incremental fit index (IFI), and root mean square error of approximation (RMSEA) were used. To measure the research variables, three instruments were applied:

Social competence questionnaire: this questionnaire was designed and developed by Felner, Laase & Philip in 1990 (8) with 47 items and four factors including behavioral skills (34 items), motivation and expectation (7 items), cognitive skills (3 items), and social competence (3 items). The scoring method is based on Likert, ranging from absolute to disagree (=1) TO absolutely agree (=7). Also, items 3, 6, 8, 9, 11, 12, 15, 16, 21, 25, 26, 28, 32, 36, 37, 38, 43, 44, and 45 are scored as reverse, i.e. score 1 is assigned to absolutely agree and 7 is assigned to absolutely disagree. The extent of social competence is appraised based on the scores as follows: 47-109 undesirable, 110-220 relatively desirable, and 220+ desirable. To determine the reliability coefficient of the scale, Cronbach alpha and test-retest correlation coefficient have been used. Cronbach alpha method has been applied to examine the internal consistency of the scale and subscales. The Cronbach alpha coefficient obtained from removing the items with a low correlation with the total score was obtained as 0.84, suggesting that the questionnaire enjoys

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acceptable undesirable internal consistency (32). In this study, to determine the reliability of the questionnaires, it was implemented on 13 students, where the Cronbach alpha coefficient was calculated for each individual area and for the total questionnaires to assess the internal consistency of the items. The results obtained from reliability for the social competence items were calculated as 0.89, suggesting its acceptable reliability. In the analysis section, the researcher has dealt with examining the validity of this questionnaire through factor analysis.

Resilience questionnaire: the resilience questionnaire used in this research was developed by Conner & Davidson in 2003. This questionnaire includes 25 items measuring resilience construct in different individuals(33). The responses are given based on a Likert scale, ranging from absolutely disagree (=0) to absolutely agree (=4). In order to obtain the total score of the questionnaire, the scores of all items are summed up together, thus giving a range of 0-100. The higher the score, the greater the resilience of the respondent will be and vice versa. The cutoff point in this questionnaire is the score of 50. In other words, scores larger than 50 indicate individuals with high resilience, while scores lower than 50 signal lists resilience in the person. Compell-Sills & Stein (2007) normalized the initial resilience scale by choosing 10 items from its 25 items on a 511-subject sample. Construct validity of the new resilience scale based on confirmatory factor analysis for all 10 items loaded a factor load of 44-93%, suggesting desired and acceptable construct validity for this scale(34). The reliability and validity of the Persian version of the resilience scale have also been examined and confirmed in preliminary studies of both normal and patient samples (35). Bigdeli, Najafi and Rostami reported the internal consistency of this scale based on Cronbach alpha of 0.9. In this research, the reliability of the questionnaire items based on measuring Cronbach alpha coefficient has been obtained as 0.83. Since this value is larger than 0.70, it implies desired reliability based on the internal consistency of the resilience scale (36).

Academic adjustment questionnaire: this instrument was designed by Baker & Siryk in 1986, which is indeed a subscale of the Student Adaptation to College Questionnaire (SACQ) which has 24 items(17). The questionnaire is interpreted and scored based on 7-point Likert scale ranging from absolutely applies to me (=7) and never applies to me (=1). The reverse items of this questionnaire include 3, 4, 6, 8, 10, 12, 13, 15, 16, 20, and 22 (i.e. score 1 is assigned to "absolutely applies to me" while score 7 is assigned to "never applies to me"). To calculate the total score of the questionnaire, the score of all questionnaire items is summed up together, with the final score ranging between 24 and 168. Higher scores indicate greater academic adjustment. In the study by Baker & Siryk, in addition to measuring the phase and continuity of the questionnaire, the Cronbach alpha coefficient

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for the academic adjustment subscale was larger than 0.8. In the research by Mikaeili (37) performed on Urmia University students, while measuring the face and content validity of this questionnaire, the Cronbach alpha coefficient was obtained as 0.84. In the research by Zarei, Mirhashemi, and Sharifi (12), it was reported as 0.83. In this research, the Cronbach alpha coefficient for academic adjustment was obtained as 0.94, which signals acceptable validity. Study model is shown in fig 1.

Results

The demographic information of the respondents indicates that 178 were female and 142 were male. Also, 148, 18, 152, and 2 of respondents started at bachelors, Masters, PhD, and specialty degrees. Table 1 reports the academic major of the participants.

Based on the results of Table 1, the largest statistics belong to medicine (30.6%), and the minimum is claimed by biostatistics (1.6%). Table 2 lists the descriptive indices of social competence, resilience, and academic adjustment.

As can be seen in Table 2, the minimum score of social competence is 127, maximum is 305, mean is 218.94, and SD is 34.19. Examining the descriptive statistics of the resilience, the minimum and maximum scores were 19 and 100 respectively with the mean ± SD of 56.81 ± 18.4. Finally, exploring the descriptive statistics of academic adjustment, the minimum and maximum scores were 67 and 143, with the mean and SD of 105.21±13.93. The simplest method for investigating the normality is kurtosis and skewness, to test the deviation of data from normal distribution. In case these two parameters do not lie within -2 and +2, the data are not normal. As can be seen in Table 2, the maximum kurtosis and skewness for social competence, resilience, and academic adjustment lie within the range of -2 and +2; thus it can be expected that the distribution of scores is normal. Before assessing the structural model, in order to develop a fit and acceptable measurement model and to determine whether the indicators well measure the underlying theoretical construct, confirmatory factor analysis was run for all latent factors. The model assessed in this research consists of two latent variables including 1- social competence and 2- academic adjustment. As can be seen in Figs. 2 and 3 based on the Lisrel outputs for confirmatory factor analysis of latent variables, each of the latent variables of social competence (with four principal indices) and academic adjustment (with 16 indices) with the maximum factorial load were used. Factorial loads (standard estimates) all of the measurement variables for the latent factor of social competence and academic adjustment were obtained as 0.57-0.86 and 0.49-0.7, respectively, where the factorial load of all indicators of latent variables are significant at 0.01 level. This suggests convergent validity of indicators.

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The results of Table 3 indicated the Pearson correlation coefficient between variables. The correlation coefficient between resilience and social competence as well as academic adjustment is positive and significant. The magnitude of this correlation is 0.596 and 0.57 add that significance level of $p<0.01$. Based on the correlation analysis between exogenous and endogenous variables, it can be concluded that any increase in the resilience will be associated with enhanced social competence and academic adjustment.

In order to better understand the causal relations and the way resilience affects social competence with the mediating role of academic adjustment and its other possible consequences, path analysis model was developed. Lisrel offers several tests for goodness of fit; according to experts, investigation of at least three tests is essential (38). In the present research, chi-square to degree of freedom ratio, goodness of fit index (GFI), NNFI, comparative fit index (CFI), incremental fit index (IFI), and root mean Square error of approximation (RMSEA) have been used to assess the path analysis model.

The results obtained from the path analysis model (Table 4) indicated that the final model enjoys good fitness. In the path analysis model, the significance of the path coefficient is represented by t-value. If t-value is between 1.96 and 2.57, the relationship between two constructs is significant at $p<0.05$ level. If t-value is larger than 2.57, that significance of the relationship is significant at $p<0.01$ level. Based on that significance healthy path coefficient between resilience and academic adjustment with t=0.33 (ß, 4.19) at $p<0.01$, it can be concluded that the first hypothesis (there is a causal relation between resilience and academic adjustment) is confirmed. Given the significance of the path coefficient between resilience and social competence with t=0.15 (ß, 2.12) at $p<0.05$, it can be concluded that the second hypothesis (there is a causal relation between resilience and social competence) is also confirmed. Finally, given the significance of the path coefficient between academic adjustment and social competence with t=0.28 (ß, 4.38) at $p<0.01$, it is deduced that the third hypothesis (there is a causal relation between academic adjustment and social competence) is also confirmed. software outputs are shown in Fig 4. and 5**.**

Discussion and Conclusion

The aim of the present research was to investigate the relationship between resilience and social competence with the mediating role of academic adjustment. Regarding inferential findings, the results obtained from the path analysis model showed that there is a positive and significant relationship between resilience and academic adjustment. The findings of this research are in line with the results of Sadoughi (39), Hosseingholi et al. (40), Beyrami et al. (26), and Souri et al. (41) regarding Iranian research. Among the foreign studies, the results of this research matched the findings of

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Anasouri and Anthony (28). Also, Liran & Miller (42) concluded that resilience had a positive significant relationship with academic adjustment of students. Also, Ebrahimi (43) found that with increasing the resilience, the extent of emotional, social, and academic adjustment of students increased. No finding discordant with this hypothesis was found. With regards to interpreting this outcome, it can be stated that since when human sciences directed its attention to humans and their mental processes, it was clear to these researchers that the role of human thought is pivotal in his life. The type of human thought changes the quality of his view in exploring their surrounding world. This view involves two areas: 1) the view humans have toward their surrounding environment and the events that occur in it and 2) the view humans have toward themselves and their inner world. Resilience as one of the major constructs of personality has been conceptualized to understand motivation, emotion, and behavior. Resilience refers to meta-dimensions of intrinsic and dynamic competence of people in modifying the level of control and responding to the demands and necessities of undesired situations and negative events. On the other hand, according to Bahadori Khosroshahi and Hashemi Nosratabad (44), it can be stated that resilience causes enhanced self-esteem and effective coping against negative experiences through boosting the levels of positive emotions. Accordingly, resilience through amplifying self-esteem, as an intermediate mechanism, culminates in a positive adaptation and well-being; those with greater well-being have also better ability in adapting to problems over others with less of this characteristic. In other words, resilient individuals are those who have a wide range of interests, enjoy high levels of enthusiasm, are assertive, are socially skillful and joyful, either lack or enjoy self-actualizing behaviors, are emotionally calm, have a kind of personal meaning in life, and are able to modify stressful conditions.

Resilience is neither merely stability against damages or threatening conditions nor is it a passive state when confronting dangerous conditions. Rather, it is active and constructive participation in the surrounding world. It can be stated that resilience is the personal competence in establishing biopsychological balance under dangerous conditions. In addition, researchers believe that resilience is a kind of self-healing with positive emotional and cognitive consequences. Kampfer believed that resilience is returning to initial balance or achieving a higher level balance (under threatening conditions), thus providing successful adjustment in life. Essentially, psychological adjustment has complex dimensions, and one of the important areas of adaptation in the human life is academic adjustment, such that academic progress and success necessitate stable level of adjustment by students both at university and school.

Examining the concept of resilience, it is not only enhancing the tolerability and adjustment

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of the person against problems, but also more importantly it is maintaining psychological health and promoting it. Resilience enables teenagers and youngsters to confront their problems as well as living or occupational challenges, without getting hurt. They even consider these situations as an opportunity for enhancing and developing their personality. World Health Organization intends to direct all attention to the problems the youth confront today, and note some points about what the prerequisites are for development, health, happiness and joy, as well as resilience.

In addition, a significant positive relationship was observed between resilience and social competence. The findings of this research concurred with the results of Beyrami et al. (26), Rahmani rasa et al. (45), Mortazavi and Yarollahi (27) in Iranian research, as well as Haktanir et al. (29) along with Paula et al. (46) among foreign research. Sepah Mansour & Modaresi (47) indicated that education based on enhancing their level of resilience is important to boost the social competence among women.

As an interpretation, it can be stated that resilience factors cause the person harness all of their capacities for achieving development and success in life when confronting difficult conditions and with all risky factors. Indeed, the benefit from these challenges and tests as an opportunity to empower themselves and flourish (48). Resilience is conceived considering stressful conditions and the intrinsic ability of individuals concurrently for response, persistence, and normal development in the face of stressful conditions. The research by Sterenson & Flaten (49) indicated that social competence refers to the ability of individuals to act adaptively in line with their age and cognitive ability. Social competence covers various factors such as self-awareness, social awareness, self-management, communication skills, and decision-making responsibility. The central core of social competence is communication skills, because other components are aquired through these skills (50). According to Masten (51), in response to resilience, the adverse effects of problems and stresses are modified or even eliminated, whereby the psychological health is maintained. Indeed, it seems that the extent of resilience plays a significant role in developing social competence; thus, through greater resilience and adaptive flexibility, individuals enjoy higher self-confidence, and better psychological adaptation compared to others with lower resilience (52). In this research, based on the results of path analysis, the resilience and social competence arm was 0.15, which if powered by 2, is around 2%; in spite of significance, it does not seem to be an acceptable level. Interpreting the poor relationship between social competence and resilience, it can be stated that social competence is affected by other factors, which are bolder than resilience among students especially medical sciences students. The major factors involved in social competence

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include self-confidence, social welfare, quality of friendships, sexual responsibility, approval by peers, and occupational qualifications.

Eventually, the results obtained from path coefficient indicated that there is a significant relationship between social competence and academic adjustment. The findings of this research matched the results of Hosseingholi et al. (40), Mohammad Gholizadeh and Amouyi (53), Rouhaniun and Amirimajd (54) among Iranian studies, as well as Lidström et al. (55) along with Sarkar & Banik (56) across foreign research. Note that based on the research principles, no discordant study was found. Abtahi and Nadri (57) showed that in the dimensions of social competence, the social form, social skills, familial relations, school relations, and social relations, there was a positive and significant relationship with academic adjustment and academic performance. However, only the dimension of antisocial interests had a negative and significant relationship with academic performance. As an interpretation, it can be stated that academic adjustment refers to possessing a positive attitude to determining academic goals, completing scientific requirements, and effective endeavor to achieve academic goals and acquiring academic success. Today, academic adjustment not only emphasizes the academic progress of students but also covers learning motivation, the ability of planning for scientific activities, sense of commitment, perseverance in educational affairs and learning, satisfaction with the atmosphere and educational environment, as well as communication skills. Although most students adapt to their new environment quickly, for some this transitional period brings about personal stress as well as emotional and academic maladaptation. In addition, social competence is indeed the power of establishing social interactions, i.e. acquiring skills, abilities, and capacities including cognitive skills, social skills, emotional competence, and motivational sets (58). In other words, social competence includes information and skills enabling the person to perform their occupational duties and routine daily exchanges. Thus, social competence can be tightly interrelated with academic adjustment. In other words, medical sciences students in the academic context learn how they should well treat patients in the future and foster sympathetic relations; in this way, they find tendency toward social competence.

As with other studies, the study had some limitations. The limitation related to the instrument was the first shortcoming as any questionnaire or other data collection methods have their own limitations. In spite of announcing the fact that this research is only an academic project and no other benefits are conceived for that, yet the respondents do not usually disclose their real attitude today items; lack of reliability about the accuracy and reality of responses compromises the results. The present research was performed on students at Mazandaran University of medical sciences, and it may have some limitations in

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generalizing to other students in other majors and in other cities. In the present research, cross-sectional study was done instead of longitudinal or multi-sectional. Conducting longitudinal studies results in a more profound understanding of the relations between research variables as it examines the variables at multiple time sections. Accordingly, the present research cannot accurately offer any interpretation about the relationship between resilience and academic adjustment as well as social competence. Based on the results of the research, implementing educational interventions for resilience are recommended such as plans based on cognitive behavioral therapy (CBT) as well as interventions based on mindfulness in order to enhance the resilience of people. Identifying those with less academic adjustment and promoting it through holding educational interventions such as SKUs for learning self-regulation and self-control is also suggested**.**

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Tables and Charts:

Table 1: Academic major of participants.

Major	Frequency	Frequency percentage	Major	Frequency	Frequency percentage
Professional health	11	4/3	Operation room	23	2/7
Biostatistics	5	6/1	Midwifery	15	7/4
Public health	21	6/6	Laboratory sciences	19	9/5
Health information technology	19	9/5	Pharmacy	33	3/10
Nursing	38	9/11	Dentistry	20	3/6
Anesthetics	18	6/5	Medicine	98	6/30

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Table 2: Descriptive statistics of the research variables.

Variable	Min.	Max.	Mean	Standard deviation	skewness	kurtosis
Social competence	127	305	218/94	34/19	-0/184	-0/635
Resilience	19	100	56/81	18/4	0/314	0/008
Academic adjustment	67	143	105/21	13/93	0/12	0/058

Table 3: Correlation of variables.

	Variable	1	2	3
1	Resilience	1		
2	Academic adjustment	*0/572	1	
3	Social competence	*0/673	*0/599	1

Table 4: The fitness oindices of the general path analysis model.

Fit index	Reliable value	Value of research model	outcome
χ^2/df	Less than 3	2/40	Model confirmation
RMSEA	Less than 0/1	0/05	Model confirmation
NFI	Greater than 0/9	0/98	Model confirmation
NNFI	Greater than 0/9	0/91	Model confirmation
CFI	Greater than 0/9	0/99	Model confirmation
GFI	Greater than 0/9	0/98	Model confirmation
AGFI	Greater than 0/9	0/96	Model confirmation

Fig. 1: Conceptual model of the research.

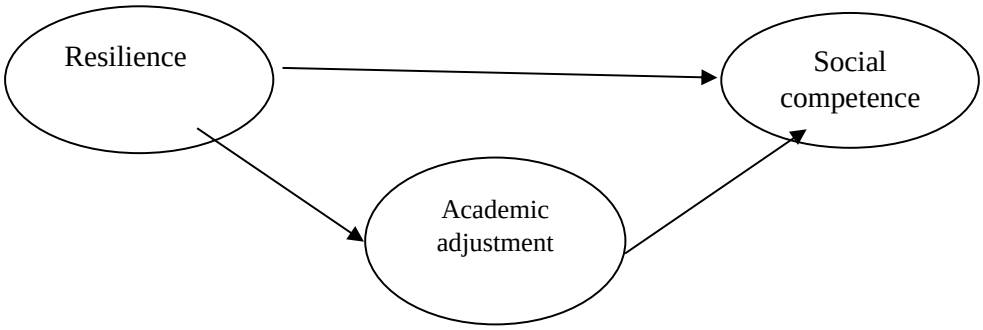

Fig. 2: Lisrel output for confirmatory factor analysis of social competence as latent factor.

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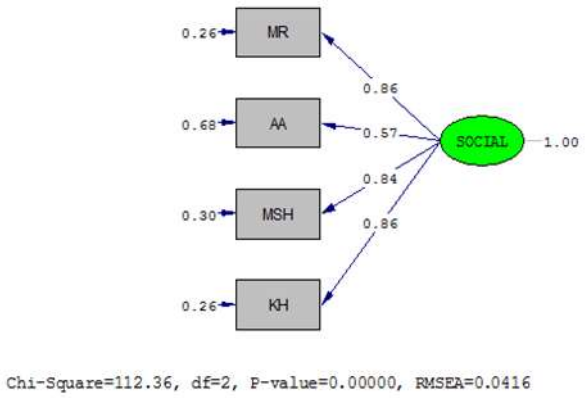

Fig. 3: Lisrel output for confirmatory factor analysis of academic adjustment as latent factor.

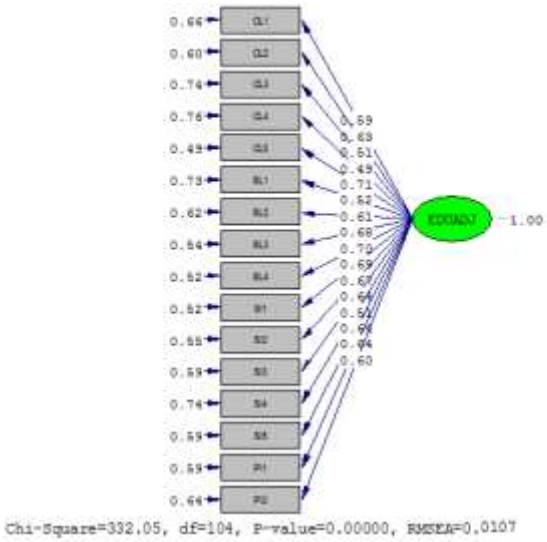

Fig. 4: The software output based on standard coefficients.

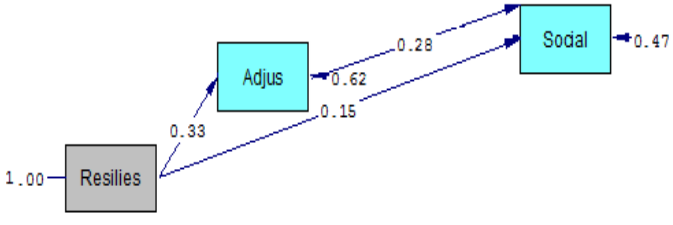

Fig. 5: The software output based on t values.

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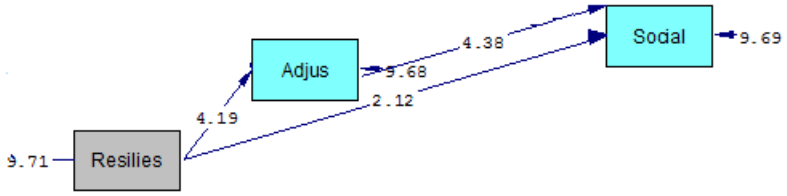

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