



Article

Effect of Family Size upon Educational Performance among Nursing's Undergraduate Students

Ahmed Burhan Abdulameer¹

1. M.Sc., Psychiatric and Mental Health Nursing Branch, Faculty of Nursing, University of Kufa, Iraq
- * Correspondence: ahmedb.alabbas@uokufa.edu.iq

Abstract: Family is the frame in which the future adult child's personality is formed and built. It is one of the most important socio-economic institutions in our society, but the nature of the links between family members varies dramatically across nationalities. Education refers to the purpose of improving the knowledge and skills affecting the personal unique normal and moral characters, which enhance human health activities. Academic performance in primary education plays a crucial role in obtaining further educational opportunities. The objective of the study is to assess the educational performance among undergraduate nursing students and find out the relationship between educational performance among undergraduate nursing student and their socio-demographic characteristics. A descriptive (cross-sectional) design study was carried out throughout the present study to identify the Effect of Family size on Education Performance among Nursing Undergraduate Students at the University of Kufa, during the period from 5th January 2024 to 22nd May 2024. A non-probability purposive sample of (832) students was selected from the First stage 176 samples, Second stage 202, Third stage 262, and Fourth stage 195 sample. Students between the ages of 21-24 (49.2 %), male students (54 %) and females (46 %), third-stage students (31.3 %), single students (81.6%), and unemployed students (53.7%). Family members (5-7) (52.3%), residency area (51.6%). Students who live with both parents recorded 87.4%, especially with literate fathers and mothers (34.9 % and 36.8% respectively). It was higher for students with sufficient income (50.6 %) and those who live in urban areas (82 %) and freehold houses (80.4%), finally it was much higher in no failing year students with a percentage of 71.5. Gender, age, job, father's level of education, monthly income, residency area, housing ownership, and failing years were statistically significant while other parameters regarding socio-demographic characteristics of students were not significant. Conducting more research on educational performance and family characteristics and via sessions and a brochure, parents must gain adequate information about student-related factors in accounting for academic achievement.

Keywords: Family size, Educational Performance, Nursing students

Citation: Abdulameer, A. B. Effect of Family Size upon Educational Performance among Nursing's Undergraduate Students. Central Asian Journal of Medical and Natural Science 2024, 5(4), 645-654.

Received: 8th Aug 2024
Revised: 15th Aug 2024
Accepted: 22nd Aug 2024
Published: 29th Aug 2024



Copyright: © 2024 by the authors. Submitted for open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>)

1. Introduction

Family is the frame in which the future adult child's personality is formed, built [1]. The family is one of the most important socio economic institutions in our society, but the nature of the links between family members varies dramatically across nationalities [2]. It is widely recognized that if learners are to maximize their potential from schooling, they will need the full support of their families. Attempts to enhance familial involvement in education occupy governments, administrators, educators and families' organizations across all over the world, It is anticipated that families should play a role not only in the promotion of their own children's Achievements but also more broadly in school improvement and the democratization of school governance [3].

Education which refers to the purpose of improving the knowledge and skills affecting the personal unique normal and moral characters which enhance the human health activities [4]. Education is a lasting process, academic performance in primary education plays a crucial role in obtaining further educational opportunities, education is the basic mechanism for enhancing the population quality of a nation, and education during childhood is the foundation for the formation of human labor-force quality [5]. Educational (in) equality may be rooted in institutional arrangement, i.e., its role of smoothing or even hampering the effect of family with different social economic status on educational opportunities. On the other hand, educational (in) equality is shaped by the different opportunities and capacities that families have in participation in education. Therefore, the relationship between family background and educational achievement has become a critical indicator in evaluating educational (in) equality.

Past studies showed that since the Open and Reform of China, family social economic status has become increasingly important in determining personal education achievement, which has not been dampened with the expansion of schools [4]. Existing research has mostly focused on the impact of family background on the eventual education attainment, especially the attainment of higher education, but it is worth noticing that education attainment is a continuous process in which the education achievement of the prior stage affects the later-stage achievement both cumulatively and probabilistically.

In East Asian countries, the evidence for the first time reveals the impact of family background and schooling policies in the different school systems and by examining how the East Asian countries achieved their high educational performance, other countries can learn for their own educational production. Although the fact that all East Asian countries performed extraordinarily well in international comparisons of student performance seems to suggest that they are very homogenous, the evidence presented in this paper reveals that their schooling systems actually feature a lot of heterogeneity. For example, family background is a much stronger predictor of children's educational performance in Korea and Singapore than in Hong Kong and Thailand, both in terms of estimated effect sizes and explanatory power [6].

Learning should not be hindered or restricted in any way even if a student comes from a poor family, has an immigrant background, is raised by a single parent or has limited resources at home. This is something that most of today's successful educational systems have understood, and the different systems have found various ways to allocate resources so as to level the playing field [7]. Empirical evidence clearly shows that education plays a significant role in influencing an individual's economic and social circumstances, with formal schooling playing an important role in the enhancement of economic growth, Education is considered as a basic need that supports the fulfillment of other basic needs such as shelter, food, clothing and security and helps steady improvement of quality of life.

Through its positive effects on earnings and on housing, water, sanitation, utilization of health facilities and women's behavior in terms of decisions related to fertility, family welfare and health, education has been regarded as an instrument for poverty reduction [8]. Important factors affecting children's educational outcomes across the world include family's socio-economic and cultural status and how parents are involved in their child's education, but also what type of expectations the families have towards their child [9].

2. Materials and Methods

Design of the Study:

A descriptive (cross-sectional) design study was carried out on nursing undergraduate students at the University of Kufa, during the period from 5th January 2024 to 22 May 2024.

The Setting of the Study:

The study has been carried out on students were collected from the University of Kufa, College of Nursing. The College of Nursing, University of Kufa is located in the Al-Najaf Governorate.

Sample of the Study:

A non-probability purposive sample of (832) students was selected from the First stage 176 samples, the Second stage 202, the Third stage 262, and the Fourth stage 195 samples.

Instrument of the study:

The researchers constructed a Self-administrative questionnaire for the purpose of present study. The researchers used educational performance scale. The final research instrument is made up of two components.

Part 1: Student's Socio-demographic Characteristics:

A socio-demographic characteristics sheet of (15) items, including gender, age, stage, type of study, marital status, do you have work in addition to being a student, number of family members, family crowding, living with parents, father's educational level, mother's educational level, and monthly income, Residence, type of housing, previous failure years, if any.

Part 2: Educational Performance Scale:

To define the concept of educational performance, it might be useful to begin with the competencies will need to face the complex challenges in today's society. In accordance with previous studies, we have categorized the key competencies into three domains: cognitive, affective, and sociocultural. Among various factors in these domains, problem-solving skills, information technology usage skills, communication skills, and collaboration skills are common factors that researchers recommend. The measurement scale of educational performance consisted of (33) questions and divided into 13 cognitive items, 10 affective items, and 10 sociocultural items [10].

Data Collection:

The researcher has gathered the data by using the developed questionnaire with the aid of arranged interview. The researcher used (semi-structured interview) technique with the caregivers as they were individually interviewed in and each subject of study sample was interviewed in the same way by using the similar questionnaire and using Arabic version of questions.

Statistical Analysis:

The data were analyzing through application of the descriptive and inferential data analysis methods, included: descriptive data analysis and inferential data analysis.

3. Results

Table 1. Statistical distribution of study sample by their demographic data

Demographic Data	Rating and intervals	Frequency	Percent
Gender	Male	449	54.0
	Female	383	46.0
Age	<= 20	263	31.6
	21 – 24	409	49.2
	25 – 27	116	13.9
	28+	44	5.3
Stage	First	175	21.0
	Second	202	24.3
	Third	260	31.3
	Fourth	195	23.4
Type of Study	Morning	392	47.1
	Night	440	52.9
Marital Status	Single	679	81.6
	Married	142	17.1
	Divorced	8	1.0
	Widowed	3	.4
Job	Yes	385	46.3
	No	447	53.7
Family No	<= 4	114	13.7
	5 – 7	435	52.3
	8 – 11	231	27.8
	12+	52	6.3
Family Crowding	<= 4	152	18.3
	5 – 7	429	51.6
	8 – 11	207	24.9
	12+	44	5.3
Room N	1	39	4.7
	2	148	17.8
	3	260	31.3
	4	239	28.7
	5 & above	146	17.5
Lived with Parents	Both	727	87.4
	One of them	57	6.9
	None	48	5.8
Father Level Education	Illiterate	35	4.2
	Literate	290	34.9
	Primary S.	79	9.5
	Secondary S.	185	22.2
	Institute	87	10.5
	college / high education	156	18.8
Mother Level Education	Illiterate	56	6.7
	Literate	306	36.8
	Primary S.	120	14.4
	Secondary S.	187	22.5
	Institute	65	7.8

	college / high education	98	11.8
Monthly Income	Sufficient	421	50.6
	Barely sufficient	336	40.4
	Insufficient	75	9.0
Residency Area	Urban	682	82.0
	Rural	150	18.0
Housing Ownership	Freehold	669	80.4
	Rental	151	18.1
	Mortgage	12	1.4
Failing Years	Yes	237	28.5
	No	595	71.5

Table 1 displays the statistical distribution of the study sample based on socio-demographic data. It describes that the sample group has the highest percentage of: students between the ages of 21-24 (49.2 %), also higher in male students (54 %) than females (46 %), third stage students (31.3 %), night study students (52.9%) more than morning study (47.1 %), also higher in single students and those with no additional job with percentage of 81,6% and 53.7% respectively. Regarding the family, it was higher in families with 5-7 members (52.3%) and higher in family crowding with 5-7 other residents (51.6%). It was also higher for students living in houses with 4 rooms (28.7 %). Students living with both parents recorded 87.4%, especially with literate fathers and mothers (34.9 % and 36.8% respectively). It was higher for students with sufficient income (50.6 %) and those who live in urban areas (82 %) and freehold houses (80.4%), finally it was much higher in no failing year's students with a percentage of 71.5.

Table 2. Overall Assessment of the educational performance among undergraduate nursing student

Items	Frequency	Percent	Ms.	Asses.
Never	20	2.4		
Sometimes	383	46.0	2.29	Moderate
Always	429	51.6		

MS: Mean of Scores; Poor: MS = 1-1.66; Moderate: MS = 1.67-2.33; Good: MS \geq 3.

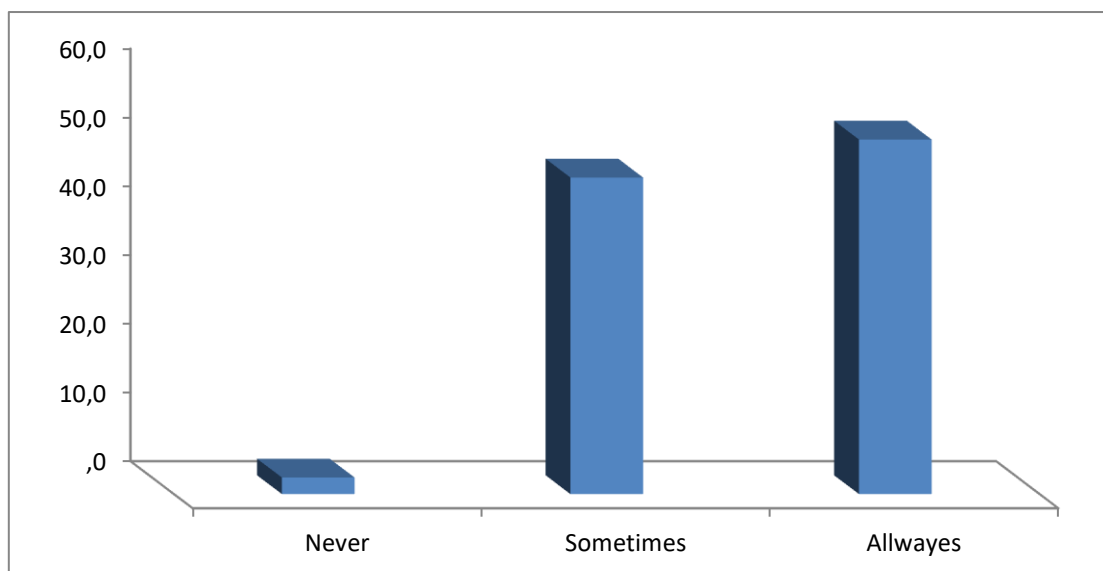


Figure 1. Overall Assessment of the educational performance among undergraduate nursing student

Table 2 and Figure 1 provides the overall assessment (mean and ratio of scores) of educational performance Scale for the study subjects. They show that the overall assessment of educational performance scale is (moderate) with mean of scores = 1.67-2.33.

Table 3. Mean Rank Comparison Table for the Relationship between Overall Scores of educational performance and undergraduate students' demographic data

Demographic Data	Rating and intervals	Mean Rank	Chi-Square	df	Sig.
Gender	Male	389.2	12.61	1	0.00*
	Female	448.5			
Age	<= 20	406.3	8.13	3	0.04*
	21 – 24	421.7			
	25 – 27	388.0			
	28+	504.0			
Stage	First	405.6	1.97	3	0.58
	Second	404.2			
	Third	420.4			
	Fourth	433.8			
Type of study	Morning	426.0	1.15	1	0.28
	Night	408.1			
Marital Status	Single	410.6	4.60	3	0.20
	Married	442.5			
	Divorced	512.8			
	Widowed	262.3			
Job	Yes	398.1	4.20	1	0.04*
	No	432.3			
Family Crowding	<= 4	443.1	2.48	3	0.48
	5 – 7	409.3			
	8 – 11	409.8			
	12+	426.3			
Room N.	<= 1	405.7	5.08	4	0.28

	2 – 2	420.4			
	3 – 3	395.3			
	4 – 4	442.7			
	5+	410.4			
Lived with Parents	Both	417.6	0.89	2	0.64
	One of them	390.0			
	None	431.4			
Father Level Education	Illiterate	324.6	14.62	5	0.01*
	Literate	404.1			
	Primary S.	366.7			
	Secondary S.	451.6			
	Institute	439.9			
	college / high education	430.6			
Mother Level Education	Illiterate	374.8	4.81	5	0.44
	Literate	409.7			
	Primary S.	430.2			
	Secondary S.	407.0			
	Institute	444.0			
	college / high education	444.7			
Monthly Income	sufficient	438.2	10.66	2	0.00*
	Barely sufficient	405.1			
	insufficient	345.9			
Residency Area	Urban	425.7	5.55	1	0.02*
	Rural	374.7			
Housing Ownership	Freehold	435.9	22.60	2	0.00*
	Rental	340.2			
	Mortgage	296.3			
Failing Years	Yes	373.2	10.76	1	0.00*
	No	433.7			

* Significant at $P < 0.05$.

Table 3 illustrates the relationship between the overall assessment of educational performance and undergraduate students' demographic data. It reveals that there is significant relationship between overall assessment of educational performance of students and their gender (Sig. 0.00), age (Sig. 0.04), job (Sig. 0.04), father level of education (Sig. 0.01), monthly income (Sig. 0.00), residency area (Sig. 0.02), and housing ownership (Sig. 0.00) and failing years (Sig. 0.00), while other parameters were not significant.

4. Discussion

The analysis of findings revealed that majority of sample were single students, [11] investigated the effect of marriage, pregnancy and child bearing on the academic performance of Nigerian female medical students. The result revealed that, the married female students who had more re-sit examinations than their male and single female counterparts. [12] investigated the effect of marital status of College students on their academic performance. Data based on a sample of 374 students indicated that married students had higher

grades than unmarried students. However, married students with children did not achieve higher than those without children. In the point of view that most of student in twenties, and not married because they are not ready to live alone and form family. In addition, financial aspect has a role, most of students don't have job so most of them think in marriage after graduation.

Table 1 show that males outperformed females in educational performance by (54%) compared with female (46%). In our opinion, because of the nature of the body mass of a man is greater than that of a woman, which leads to the ability to withstand greater working hours, lasting from 14-16 hours a day. Therefore, the percentage of males is higher than females. As for age, the study showed the superiority of the group (21-24), it was 49.2% compared with other groups. This result is agree with [13], who found that majority of the students aged 22–25 at baseline-plus-20. While this result disagree with [14] they found that in general, female students attained significantly higher grades than their male counterparts.

Table 1 revealed that the third stage was superior to the rest of the others, it was (31.3%) compared with other stages. This result may be due to that the third stage is higher in number and they were more cooperative in compare with the other stages. Table 1 showed that students who study at night are slightly higher than their peers who study in the morning by (52.9%). In addition, the high percent of the subjects' job (53.7%) has no job. This may be attributed to the fact that employed students have job obligations that affect their educational performance.

Concerning the living with parents, the results of the study showed that the students living with both parents was the majority by (87.4%) compared to students living with or without one of the parents. It is clear that most of them are without work and are not financially independent, economic state, cultural customs and traditions play an important role; Parents take the responsibility and want their children to live with them.

In terms of socioeconomic status, half of the study participants have a sufficient monthly income (50.6%) compared to others. These findings accord with [15] who found that the majority of the subjects were moderate income.

Discussion the overall assessment of educational performance scale was moderate for the study subjects. Table 3 shows that there is a significant relationship between total score assessment of educational performance scale and students' gender. This result comes along with a study conducted by [16] who found that there is a significant relationship between educational performance of students and their gender. Discussion Table 3 displays that there is a significant relationship between total score assessment of educational performance scale and students' age. This is perhaps due to the increase in the sample number in this category (21 – 24 years) compared to other categories, the result was of significance.

In additional to monthly income, there is a significant relationship between total score assessment of educational performance scale and students' family income if the best result for students who have sufficient monthly income was (50.6%) compared to others. This result almost agree with a study by [8] who found that the family income have an influence on school achievement.

As for the effect of the students' residence area on educational performance, the results of the current study showed that students residing in urban areas outperformed (82%) compared to rural areas. Also, there is a significant relationship between total score assessment of educational performance scale and students' father level of education, this result is in line with a study by [8] who presented that the parental level of education has been found to be the most significant source of disparities in student performance.

5. Conclusion

The researcher has reached the following conclusions based on the discussion and analysis of the study findings:

1. The study concluded that most of the students were to have moderate level of educational performance.
2. Gender, age, job, father level of education, monthly income, residency area, housing ownership and failing years were statistically significant while other parameters regarding socio-demographic characteristics of students were not significant.
3. The study concluded that students who study at night outperform their peers who study in the morning.
4. The students were under the age of thirty, and more than half of them were males. The majority of the subjects was single, had no job, and had a sufficient income.
5. The researchers concluded that the non-employee students had better educational performance than the employed students.

6. Recommendation

According to the findings of the present study, the researcher recommends the following:

1. Conducting more research on educational performance and family characteristics.
2. Via sessions and a brochure, parents must gain adequate information about student-related factors in accounting academic achievement of them.

REFERENCES

- [1] H. Catalano and C. Cristina, "The Importance of the School-Family Relationship in the Child's Intellectual and Social Development," *Procedia - Social and Behavioral Sciences*, vol. 128, pp. 406–414, 2014.
- [2] A. F. Alesina and P. Giuliano, "The Power of the Family," *SSRN Electronic Journal*, June 2010.
- [3] J. Long, "Analysis of Family Education/School Education and Personal Development," *European Journal of Research in Social Sciences*, vol. 3, no. 1, pp. 1–11, 2015. Available: www.idpublications.org.
- [4] Z. Li and Z. Qiu, "How Does Family Background Affect Children's Educational Achievement? Evidence From Contemporary China," *Journal of Chinese Sociology*, vol. 5, no. 1, 2018.
- [5] G. A. Gobena, "Family Socio-Economic Status Effect on Students' Academic Achievement at College of Education and Behavioral Sciences, Haramaya University, Eastern Ethiopia," *Journal of Teacher Education and Educators*, vol. 7, no. 3, pp. 207–222, 2018.
- [6] L. Wößmann, "Educational Production in East Asia: The Impact of Family Background and Schooling Policies on Student Performance," *German Economic Review*, vol. 6, no. 3, pp. 331–353, 2005.
- [7] H. Harju-Luukkainen, J. Vettenranta, J. Wang, and S. Garvis, "Family Related Variables Effect on Later Educational Outcome: A Further Geospatial Analysis on TIMSS 2015 Finland," *Large-Scale Assessments in Education*, vol. 8, no. 1, 2020. Available: <https://doi.org/10.1186/s40536-020-00081-2>.
- [8] C. Engin-Demir, "Factors Influencing the Academic Achievement of the Turkish Urban Poor," *International Journal of Educational Development*, vol. 29, no. 1, pp. 17–29, 2019.
- [9] T. W. Watts, G. J. Duncan, R. S. Siegler, and P. E. Davis-Kean, "What's Past Is Prologue: Relations Between Early Mathematics Knowledge and High School Achievement," *Educational Researcher*, vol. 43, no. 7, pp. 352–360, 2014.
- [10] M. Kang, H. Heo, L. Jo, J. Shin, and J. Seo, "Developing an Educational Performance Indicator for New Millennium Learners," *Journal of Research on Technology in Education*, vol. 43, no. 2, pp. 157–170, 2010.
- [11] P. M. Eloundou-Enyegue and L. B. Williams, "Family Size and Schooling in Sub-Saharan African Settings: A Reexamination," *Demography*, vol. 43, no. 1, pp. 25–52, 2016.

-
- [12] I. R. Ifeoma, A. M. Ifunanya, and O. C. Ngozi, "Students' Inherent Characteristics as Correlates of Academic Performance in Mathematics Education in Enugu State, Nigeria," *Mediterranean Journal of Social Sciences*, vol. 5, no. 26, pp. 93–97, 2014.
- [13] T. W. Chan, M. Henderson, and R. Stuchbury, "Family Size and Educational Attainment in England and Wales," *Population Studies*, vol. 73, no. 2, pp. 165–178, 2019. Available: <https://doi.org/10.1080/00324728.2019.1577479>.
- [14] A. Razzaque, P. K. Streatfield, and A. Evans, "Family Size and Children's Education in Matlab, Bangladesh," *Journal of Biosocial Science*, vol. 39, no. 2, pp. 245–256, 2007.
- [15] J. Battle and M. Lewis, "The Increasing Significance of Class: The Relative Effects of Race and Socioeconomic Status on Academic Achievement," *Journal of Poverty*, vol. 6, no. 2, pp. 21–35, 2017.
- [16] E. H. Blaabæk, M. M. Jæger, and J. Molitoris, "Family Size and Educational Attainment: Cousins, Contexts, and Compensation," *European Journal of Population*, vol. 36, no. 3, pp. 575–600, 2020. Available: <https://doi.org/10.1007/s10680-019-09543-y>.