



“ASSOCIATION BETWEEN ACADEMIC PERFORMANCE AND SELECTED SOCIO-DEMOGRAPHIC VARIABLES AMONG NURSING STUDENTS”

Anitha John¹, Dr. Amita Paul²

¹Ph.D. Scholar, Mansarovar Global University, Sehore, Madhya Pradesh, India

²Professor, Faculty of Nursing Sciences, Mansarovar Global University, Sehore, Madhya Pradesh, India

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Abstract: Academic performance is an important indicator of educational achievement and professional preparedness in nursing education and may be influenced by personal, educational, environmental, and socioeconomic factors. This study assessed the association between academic performance and selected socio-demographic variables and also examined social competence among nursing students in Kottayam District, Kerala. A quantitative descriptive-correlational design was used. A total of 600 nursing students aged 18–25 years from first to fourth year were selected by purposive sampling. Data were collected using a Socio-Personal Data Sheet, an eight-item Academic Performance Scale, and a ten-item Social Competence Assessment Tool. Frequency, percentage, mean, standard deviation, and chi-square test were used for analysis, with $p < 0.05$ considered significant. The overall mean academic performance score was 3.80, while the overall mean social competence score was 4.42. Academic performance was significantly associated with age, residence type, year of study, parents' education, and parents' income, but not gender. Social competence was significantly associated with residence type, year of study, parents' education, and parents' income, but not gender or age. The findings indicate that selected educational and socioeconomic characteristics may be associated with academic and social outcomes among nursing students.

Keywords: *academic performance; socio-demographic variables; social competence; nursing students; parental education; residence; academic achievement.*

INTRODUCTION

Academic performance is a major indicator of student success in nursing education because nursing students must integrate theoretical knowledge, practical skills, clinical exposure, critical thinking, and professional behaviour. Academic achievement is influenced not only by individual ability but also by learning environment, family support, parental education, socioeconomic conditions, residence, age, and stage of study. These factors may influence access to educational resources, academic guidance, motivation, peer interaction, and opportunities for professional development. Social competence is also important in nursing education because effective nursing practice requires communication, empathy, cooperation, interpersonal interaction, adaptability, problem-solving, and self-control. Understanding how students' socio-demographic background relates to academic performance and social competence may help nursing institutions plan appropriate mentoring, counselling, academic support, and student-development activities.

Therefore, the present study examined the association of selected socio-demographic variables with academic performance and social competence among nursing students in Kottayam District.

OBJECTIVES

The objectives were to assess academic performance and social competence among nursing students; to determine the association between academic performance and gender, age, residence type, year of study, parents' educational status, and parents' monthly income; and to determine the association between social competence and the same socio-demographic variables.

METHODOLOGY

A quantitative descriptive-correlational research design was adopted. The study was conducted among nursing students enrolled in selected nursing colleges in Kottayam District, Kerala. The sample comprised 600 students aged 18–25 years representing first, second, third, and fourth years of nursing education. Purposive sampling was used. Students who met the age, programme, year-of-study, availability, and



willingness criteria were included, while unavailable or unwilling students were excluded.

Data were collected using three tools. The Socio-Personal Data Sheet recorded gender, age, residence type, year of study, parents' educational status, and parents' monthly income. The Academic Performance Scale contained eight five-point Likert items scored from 5 (Strongly Agree) to 1 (Strongly Disagree). The Social Competence Assessment Tool contained ten items covering active listening, communication, empathy, social awareness, assertiveness, conflict resolution, problem-solving, cooperation, flexibility, and self-control, scored from 1 (Never) to 5 (Always). Permission was obtained from the concerned institutions, participation was voluntary, confidentiality was maintained, and the collected information was used for research purposes.

Data were coded and analysed using SPSS version 25.0. Frequency and percentage were used for categorical variables, while mean and standard deviation were used for scale responses and coded socio-demographic variables. Chi-square test of independence was used to examine associations between the outcome variables and selected socio-demographic variables. Statistical significance was set at $p < 0.05$. The socio-personal characteristics represented the same group of 600 participants and therefore remained identical wherever pre-test and post-test demographic data were reported.

RESULTS

Socio-demographic characteristics

Variable	Category	n (%)
Gender	Boy	61 (10.17)
	Girl	539 (89.83)
Age	18 years	112 (18.67)
	19 years	124 (20.67)
	20 years	163 (27.17)
	21 years	119 (19.83)
	22 years	53 (8.83)
	23 years	24 (4.00)
	24 years	4 (0.67)
	25 years	1 (0.17)
Residence	Day Scholar	213 (35.50)
	Hosteller	387 (64.50)
Year of study	I year	163 (27.17)
	II year	161 (26.83)

	III year	150 (25.00)
	IV year	126 (21.00)
Parents' education	Below 10th	34 (5.67)
	10th to +2	288 (48.00)
	Graduation or above	278 (46.33)
Parents' income	₹10,000/month	209 (34.83)
	₹10,001-₹50,000	309 (51.50)
	Above ₹50,000	82 (13.67)

The sample was predominantly female (89.83%) and hostellers (64.50%). The largest age group was 20 years (27.17%). Students were represented across all four academic years. Nearly half reported parents' education at the 10th to +2 level (48.00%), while 46.33% reported graduation or higher. The most common parental income category was ₹10,001-₹50,000 per month (51.50%).

Variable	Coding/measure	Mean	SD
Gender	1=Boy, 2=Girl	1.90	0.30
Age	Years	19.95	1.42
Residence	1=Day Scholar, 2=Hosteller, 3=Chamber	1.65	0.48
Year of study	1=I, 2=II, 3=III, 4=IV	2.40	1.10
Parents' education	1=Below 10th, 2=10th-+2, 3=Graduation+	2.41	0.60
Parents' income	1=₹10,000; 2=₹10,001-₹50,000; 3=>₹50,000	1.79	0.66

Academic performance

No.	Academic performance item	SA	A	N	D	SD
1	I made myself ready in all my subjects.	201	223	98	56	22
2	I pay attention and listen during every discussion.	195	222	96	58	29
3	I want to get good grades in every subject.	244	222	71	39	24
4	I actively participate in every discussion.	187	219	98	67	29
5	I start papers and projects as soon as they are assigned.	174	218	101	69	38



6	I enjoy homework and activities because they help me improve my skills.	169	206	107	76	42
7	I exert more effort when I do difficult assignments.	198	225	88	54	35
8	Solving problems is a useful hobby for me.	182	214	100	64	40

Overall, the response pattern indicated a favourable academic orientation, with Strongly Agree and Agree responses predominating across the eight items. The overall mean academic performance score was 3.80 (SD across item means=0.123).

Socio-demographic variable	χ^2	df	p-value	Result
Gender	0.0753	2	0.9630	Not significant
Age	54.2821	4	<0.001	Significant
Residence type	17.3501	4	0.0017	Significant
Year of study	14.5104	6	0.0244	Significant
Parents' education	43.2893	4	<0.001	Significant
Parents' income	51.0239	4	<0.001	Significant

Academic performance showed statistically significant associations with age, residence type, year of study, parents' education, and parents' income. Gender was not significantly associated with academic performance.

Social competence

N o.	Domain	Never	Rarely	Sometimes	Often	Always
1	Active listening	6	13	29	233	319
2	Communication	3	15	25	229	328

3	Empathy	0	9	23	242	326
4	Social awareness	7	13	29	228	323
5	Assertiveness	6	16	32	234	312
6	Conflict resolution	9	18	31	231	311
7	Problem-solving	3	14	30	236	317
8	Cooperation	6	9	27	233	325
9	Flexibility	7	14	26	229	324
10	Self-control	6	13	30	229	322

Responses were concentrated in the Often and Always categories across the ten social-competence domains. The overall mean social competence score was 4.42 (SD across item means=0.031), indicating a high level of reported social competence.

Socio-demographic variable	χ^2	df	p-value	Result
Gender	0.8757	2	0.6454	Not significant
Age	4.0183	4	0.4035	Not significant
Residence type	18.3389	4	0.0011	Significant
Year of study	12.8979	6	0.0447	Significant
Parents' education	87.7977	4	<0.001	Significant
Parents' income	33.9584	4	<0.001	Significant

Social competence was significantly associated with residence type, year of study, parents' education, and parents' income, whereas gender and age were not significantly associated.

DISCUSSION

The present study of 600 nursing students found that academic performance was associated with several contextual and socioeconomic characteristics. Age and year of study may



reflect differences in academic maturity, curricular exposure, clinical experience, and learning strategies. Residence type may influence peer interaction, study environment, independence, and access to academic support. Parents' educational status and income may also affect the academic environment and access to learning resources. These findings support the view that student achievement is influenced by multiple interacting personal and contextual factors rather than by individual ability alone.

Social competence was generally high, as reflected by the predominance of Often and Always responses. Residence type and year of study showed significant associations, which may be related to differences in peer interaction, clinical exposure, communication opportunities, and professional experience. Significant associations with parents' education and income suggest that family and socioeconomic context may also be relevant to students' interpersonal development. Because this was a descriptive-correlational study, the findings demonstrate association and should not be interpreted as evidence of causation.

Gender was not significantly associated with either academic performance or social competence. Overall, the findings suggest that nursing institutions should consider students' educational and socioeconomic context when planning academic mentoring, counselling, peer-support, communication training, and other student-development programmes.

CONCLUSION

Among 600 nursing students in Kottayam District, academic performance was significantly associated with age, residence type, year of study, parents' education, and parents' income, while gender was not significant. Social competence was significantly associated with residence type, year of study, parents' education, and parents' income, while gender and age were not significant. The findings highlight the importance of supportive educational and social environments in nursing education.

RECOMMENDATIONS

Similar studies may be conducted in different regions and institutions using larger and, where feasible, probability-based samples. Longitudinal research may further examine changes in academic performance and social competence across nursing education. Institutions may strengthen academic mentoring, counselling, peer-support, communication, empathy, teamwork, and problem-solving programmes,

particularly for students experiencing academic or socioeconomic difficulties.

LIMITATIONS

The study was limited to selected nursing institutions in Kottayam District and used purposive sampling, which may limit generalizability. The study included students aged 18–25 years and selected socio-demographic variables only; other factors such as study habits, motivation, stress, psychological well-being, family support, and institutional environment were not comprehensively assessed. The numerical tables in the supplied manuscript were reconciled from aggregate frequencies because individual-level raw data were not available for independent verification; the reported chi-square values were retained because the underlying cross-tabulations were not available.

ETHICAL CONSIDERATIONS

Participants were informed about the purpose and procedure of the study. Participation was voluntary, confidentiality was maintained, and the collected information was used solely for research purposes.

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CONFLICT OF INTEREST

The authors declare no conflict of interest associated with the present study.

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