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Effect of Mentorship Programs on Locus of Control Development among Nursing Students in Selected University, Ajman

¹Rima Mahmoud Ebrahimi, ²Mohamed Basher Al Ojil, ³Aisha Obaid Ahmed, ⁴Dr. Soma Ibrahim Ali, ⁵Vimala
Varatharajan

^{1,2,3} BSN Students, 2020 Batch, CON, Gangadhar Meher University, Sambalpur, Odisha,
India

^{4,5} Assistant Professor, CON, Gangadhar Meher University, Sambalpur, Odisha, India

Corresponding Author: **Vimala Varatharajan**

Abstract

Background: Locus of Control is an aptitude that is to be relevant control in excess of outcomes. People who consider themselves able to control their outcomes are known as internal or possess an internal Locus of Control. Externals or individuals with external Locus of Control considered their outcomes beyond of their control.

Objectives: To investigate the impact of a mentorship program on the locus of control development among nursing students at a private university in the UAE.

Materials and Methods: This research investigates the impact of a mentorship program on the locus of control among first-year nursing students at a private university in the UAE. The study involves 51 Nursing students and utilizes a quantitative, with pre-experimental research design (One Group Pretest/ Post-test). The Academic Locus of Control Scale for College Students and the Mentorship Assessment Form were used for data collection. Data were collected over 8 weeks through online surveys and analyzed using descriptive and inferential statistics.

Conclusion and Major Findings of the Study: Regarding

the students' perception barriers in Mentoring, 21.6% of participants agreed that the objectives did not suit them, while 25.5% agreed that appointment times were not obeyed and 29.4% were annoyed with their mentor's conduct, which could affect the mentoring relationship's effectiveness. Regarding the Locus of control results, In Pre-Assessment, students initially exhibited a balanced or external locus of control, with high agreement to statements like "Some students, such as student leaders and athletes, get free rides in college classes" (66.7%) and "I can be easily talked out of studying" (72.5%). In the Post-Assessment: There was a significant shift toward an internal locus of control. Positive responses to statements such as "College grades most often reflect the effort you put into classes" increased from 47.1% to 86.3%, and "I consider myself highly motivated to achieve success in life" rose from 52.9% to 90.2%. It is recommended to develop and implement structured mentorship programs tailored to the needs of nursing students and new graduates to support their transition into professional roles.

Keywords: Locus of Control, Mentorship, Nursing Students, Students' Perception

Introduction

In the dynamic and demanding field of nursing, the development of a strong sense of self-efficacy and personal control is essential for success. One psychological construct that plays a vital role in shaping an individual's ability to navigate the challenges of the nursing profession is their locus of control. Locus of control refers to the extent to which individuals perceive their lives as being under their control (internal locus) or as being subject to external forces and chance (external locus). The nursing profession requires individuals to make critical decisions, manage stress, and take responsibility for patient care, making it imperative to investigate how mentorship programs can influence the locus of control development among nursing students^[1]. Nursing education plays a pivotal role in shaping the future healthcare workforce, with nursing students undergoing rigorous academic and clinical training to become competent professionals^[2]. Within the framework of nursing education, mentorship programs have emerged as valuable tools for facilitating the transition from student to practitioner, fostering professional growth, and enhancing the overall learning experience. Among the various outcomes associated with mentorship programs, the development of locus of control stands out as a critical area of interest.

Nursing education is a rigorous and demanding process, and nursing students often face challenges that can have a significant impact on their self-perception and confidence in their abilities. Mentorship programs, which pair experienced nurses with students, provide a structured platform for the transfer of knowledge, skills, and wisdom, in addition to emotional and psychological support [2]. It is hypothesized that such mentorship relationships may not only aid in the acquisition of clinical skills but also play a crucial role in shaping students' perceptions of control over their own lives and professional development. Understanding how mentorship influences the locus of control among nursing students is essential for both educators and healthcare institutions seeking to enhance the preparedness and resilience of their future workforce. Nursing students, whether undergraduate or graduate, are at a higher risk for stress and anxiety due to the competitiveness and complexities of nursing school. There is evidence in the literature on the effects of peer mentoring among nursing students. Peer mentoring has been associated with increased retention, student engagement, and skills competence among nursing students. There is, however, paucity in the literature about peer mentoring's effect on the stress and anxiety levels of undergraduate nursing students [4].

Aim of the study

To investigate the impact of a mentorship program on the locus of control development among nursing students at a private university in the UAE.

Objective of the study

1. To identify the student's perception of the benefits and barriers of mentorship programs that contribute to changes in locus of control.
2. To assess the baseline locus of control levels among selected nursing students before they participated in mentorship programs.
3. To examine the impact of mentorship programs on the development of an internal locus of control among selected nursing students.
4. To associate the level of Locus of Control Development with selected demographic variables among nursing students.

Materials & Methods

A Quantitative research approach with a Quasi-experimental research design was used to assess the impact of the Mentorship Program among 51 nursing students studying in a private medical university who were selected using a total enumerated sampling technique. An online survey was conducted, and data was collected after obtaining informed consent.

The study instrument consisted of structured questionnaires to assess the demographic profile, the Academic Locus of Control Scale for College Students, and the Mentoring Assessment Form.

Results

Table 1: Number and Percent of the studied Nursing students according to personal characteristics (n=51)

Personal characteristics	Number (n)	Percent (%)
Age		
• Less than 20 years	10	19.6
• 20-23years	38	74.5
• More than 23 years	3	5.9
Gender		
• Male	16	31.4
• Female	35	68.6
Marital status		
• Single	35	68.6
• Married	13	25.5
• Separated	3	5.9
Nationality		
• United Arab Emirates	21	41.2
• African	9	17.6
• Yemen – Syria – Jordan - Lebanon	12	23.5
• Pakistan – India – Philippines- Bangladesh	9	17.6
Religion		
• Muslim	45	88.2
• Non-Muslim	6	11.8

Table 2: Assessment of Perceived Benefits Regarding Mentoring Program among the studied Nursing Students (n=51)

Perceived benefits	Disagree	Partially agree	Totally agree	Mean ± SD
I was able to find answers to all my questions.	7(13.7)	24(47.1)	20(39.2)	2.25±0.68
The advice given by my mentor was useful.	2(3.9)	18(35.3)	31(60.8)	2.57±0.57
My mentor was always near me.	11(21.6)	8(15.7)	32(62.7)	2.41±0.82
My self-confidence increased.	7(13.7)	9(17.6)	35(68.6)	2.55±0.73
I felt special.	4(7.8)	6(11.8)	41(80.4)	2.73±0.60
University environment creates no more stress for me.	10(19.6)	11(21.6)	30(58.8)	2.39±0.80
My mentor became a role model for me.	7(13.7)	11(21.6)	33(64.7)	2.51±0.73
My mentor guided me to solve my problems.	8(15.7)	14(27.5)	29(56.9)	2.41±0.75
I became aware of my rights as a student.	3(5.9)	5(9.8)	43(84.3)	2.78±0.54
My mentor listened to me attentively.	2(3.9)	6(11.8)	43(84.3)	2.80±0.49
My mentor was supportive.	1(2.0)	11(21.6)	39(76.5)	2.75±0.48

My mentor motivated me.	2(3.9)	8(15.7)	41(80.4)	2.76± 0.71
My mentor was sincere.	7(13.7)	3(5.9)	41(80.4)	2.75± 0.52
My mentor enabled me to notice some of my attributes.	2(3.9)	9(17.6)	40(78.4)	2.67± 0.71
I had a strong relation with my mentor.	3(5.9)	2(3.9)	46(90.2)	2.84± 0.51

Table 3: Assessment of Perceived Barriers Regarding Mentoring Program among the studied Nursing Students (n=51)

Perceived barriers	Disagree	Partially agree	Totally agree	Mean ± SD
Objectives did not suit me.	33(64.7)	7(13.7)	11(21.6)	1.57± 0.83
Objectives were not specified together.	35(68.6)	11(21.6)	5(9.8)	1.41± 0.66
Appointment hour was not suitable.	31(60.8)	8(15.7)	12(23.5)	1.63± 0.84
Appointment location was not suitable.	34(66.7)	7(13.7)	10(19.6)	1.53± 0.81
Appointment time was not obeyed.	28(54.9)	10(19.6)	13(25.5)	1.71± 0.85
I was annoyed with my mentor's conduct.	32(62.7)	4(7.8)	15(29.4)	1.67± 0.91
I could not agree with my mentor.	29(55.9)	8(15.7)	14(27.5)	1.71± 0.87
His/her performing this application as if required by the course bothered me.	27(52.9)	7(13.7)	17(33.3)	1.80± 0.91
I always felt under pressure.	32(62.7)	7(13.7)	12(23.5)	1.61± 0.85
I think that the mentoring service is not useful	33(64.7)	5(9.8)	13(25.5)	1.61± 0.87

Table (4) Locus of Control among the studied Nursing Students (n=51)

The assessment results indicate a significant shift in the locus of control among the studied group of 51 participants, attributable to a mentorship program. Pre-assessment data showed a balance or external locus of control with 45-67% affirming statements like "Some students, such as student leaders and athletes, get free rides in college classes" (66.7%) and "I can be easily talked out of studying" (72.5%). Post-assessment results demonstrate a substantial

shift towards an internal locus of control, with notable increases in positive responses to statements reflecting personal agency and effort, such as "College grades most often reflect the effort you put into classes" rising from 47.1% to 86.3% and "I consider myself highly motivated to achieve success in life" increasing from 52.9% to 90.2%. This trend suggests that the mentorship program effectively enhanced the participants' belief in their ability to influence their own academic and personal success.

Table 4: Locus of Control among the studied Nursing Students (n=51)

Items	Pre		Post	
	False	True	False	True
1. College grades most often reflect the effort you put into classes.	27(52.9)	24(47.1)	7(13.7)	44(86.3)
2. I came to college because it was expected of me.	22(43.1)	29(56.9)	14(27.5)	37(72.5)
3. I have largely determined my own career goals.	27(52.9)	24(47.1)	10(19.6)	41(80.4)
4. Some people have a knack for writing, while others will never write well no matter how hard	23(45.1)	28(54.9)	10(19.6)	41(80.4)
5. At least once, I have taken a course because it was easy to get a good grade.	32(62.7)	19(37.3)	14(27.5)	37(72.5)
6. Professors sometimes make an early impression of you and then no matter what you do, you	24(47.1)	27(52.9)	6(11.8)	45(88.2)
7. There are some subjects in which I could never do well.	23(45.1)	28(54.9)	13(25.5)	38(74.5)
8. Some students, such as student leaders and athletes, get free rides in college classes.	34(66.7)	17(33.3)	9(17.6)	42(82.4)
9. I sometimes feel that there is nothing I can do to improve my situation.	15(29.4)	36(70.6)	4(7.8)	47(92.2)
10. I never feel really hopeless—there is always something I can do to improve my situation.	18(35.3)	33(64.7)	9(17.6)	42(82.4)
11. I would never allow social activities to affect my studies.	23(45.1)	28(54.9)	8(15.7)	43(84.3)
12. There are many more important things for me than getting good grades.	17(33.3)	34(66.7)	12(23.5)	39(76.5)
13. Studying every day is important.	12(23.5)	39(76.5)	5(9.8)	46(90.2)
14. For some courses it is not important to go to class.	22(43.1)	29(56.9)	4(7.8)	47(92.2)
15. I consider myself highly motivated to achieve success in life.	24(47.1)	27(52.9)	5(9.8)	46(90.2)
16. I am a good writer.	23(45.1)	28(54.9)	6(11.8)	45(88.2)
17. Doing work on time is always important to me.	11(21.6)	40(78.4)	7(13.7)	44(86.3)
18. What I learn is more determined by college and course requirements than by what I want to	26(51.0)	25(49.0)	7(13.7)	44(86.3)
19. I have been known to spend a lot of time making decisions which others do not take seriously.	32(62.7)	19(37.3)	8(15.7)	43(84.3)
20. I am easily distracted.	24(47.1)	27(52.9)	9(17.6)	42(82.4)
21. I can be easily talked out of studying.	14(27.5)	37(72.5)	9(17.6)	42(82.4)
22. I get depressed sometimes and then there is no way I can accomplish what I know I should be	16(31.4)	35(68.6)	13(25.5)	38(74.5)
23. Things will probably go wrong for me some time in the near future.	18(35.3)	33(64.7)	12(23.5)	39(76.5)
24. I keep changing my mind about my career goals.	22(43.1)	29(56.9)	8(15.7)	43(84.3)
25. I feel I will someday make a real contribution to the world if I work hard at it.	19(37.3)	32(62.7)	5(9.8)	46(90.2)
26. There has been at least one instance in school where social activity impaired my academic	29(56.9)	22(43.1)	10(19.6)	41(80.4)
27. I would like to graduate from college, but there are more important things in my life.	19(37.3)	32(62.7)	4(7.8)	47(92.2)
28. I plan well and I stick to my plans.	14(27.5)	37(72.5)	7(13.7)	44(86.3)

Table (5) Association between locus of control and demographic variables of students

The F-test (ANOVA) results suggest that there are no significant associations between locus of control and the

demographic variables of age, gender, marital status, nationality, and religion among the students, as none of the p-values are less than the significance threshold of 0.05.

Table 5: Association between locus of control and demographic variables of students

Personal characteristics	Mean ±SD	F(p)
Age		
• Less than 20 years	23.30±2.35	0.196 (0.823)
• 20-23years	23.34±2.79	
• More than 23 years	24.33±2.08	
Gender		
• Male	23.43±2.85	0.007 (0.935)
• Female	23.37±2.59	
Marital status		
• Single	23.34±2.58	0.196 (0.823)
• Married	23.31±3.14	
• Separated	24.33±0.57	
Nationality		
• United Arab Emirates	23.80±2.24	0.860 (0.468)
• African	23.11±3.33	
• Yemen – Syria – Jordan - Lebanon	23.75±2.37	
• Pakistan – India – Philippines- Bangladesh	22.22	
Religion		
• Muslim	23.64±2.48	3.661 (0.062)
• Non-Muslim	21.50±3.27	

*Significant (P<0.05).

F= NOVA test

Table 6: Correlation between Locus of Control and Mentorship program among the studied group (n=51)

Mentorship Program	Locus of control pre		Locus of control post	
	r	p	r	p
Perceived benefits	0.097	0.500	0.302	0.031*
Perceived barriers	-0.014-	0.925	0.092	0.522

Discussion

1. Objective I: To identify the student’s perception about the benefits and barriers of mentorship programs that contribute to changes in Locus of Control

The assessment of perceived benefits regarding the mentoring system among the studied students indicate a generally positive experience. Notably, 80.4% totally agreed that they felt special, with a mean score of 2.73 ± 0.60. Similarly, 84.3% totally agreed that they became aware of their rights as a student, and 84.3% totally agreed that their mentor listened attentively, with mean scores of 2.78 ± 0.54 and 2.80 ± 0.49, respectively. Additionally, 76.5% totally agreed that their mentor was supportive (mean score 2.75 ± 0.48), and 80.4% totally agreed that their mentor motivated them (mean score 2.76 ± 0.71).

These results suggest that the mentoring system is highly beneficial, particularly in enhancing the respondents' sense of support, motivation, and awareness of personal and academic rights. This maybe because of the reality that Mentoring provides students with individualized attention, making them feel valued and special. This personalized approach can significantly enhance their sense of self-worth and confidence. The assessment of perceived barriers regarding the mentoring system among the studied group of 51 respondents indicates certain areas where a notable minority experienced significant issues. Specifically, 21.6% totally agreed that the objectives did not suit them (mean score 1.57 ± 0.83).

On the same line, a study was conducted in Pakistan by Chaudary *et al*, 2024, in which 761 students participated in this study, comprising of 562 (74%) females and 199 (26%) male students. Out of this total 92% of the students considered mentorship as a mean of guiding the students, 89% agreed that mentorship is a relationship rather than set of activities, whereas 95% students felt that there is a definite

need of mentorship in medical education. 74% of students felt that contact sessions with mentor should be done before exam³. Similarly, a study of a total of 203 students participated in the study. Out of these, 173 (85.2%) students felt that mentorship is guiding the students. About 81 students (39.9%) strongly agreed that mentorship is a relationship rather than set of activities. About 198 students (98%) felt that there is a definite need of mentorship in medical education. About 151 students (74.4%) felt that contact session with mentor should be done as and when required but definitely more before exam. About 181 students (89.6%) felt comfortable if mentor had expectations from them⁵.

On the other hand, another study was conducted in Pakistan by Kattimuthu *et al*, 2022, who revealed that only 31.73% of students said, that they could handle failures, depression and homesickness better as a result of the mentorship program. Only 52.88% of students mentioned that their performance in exams improved, as a result of mentorship program. Only 81.82% of mentors felt mentoring was a nice concept^[6].

2. Objective II: To assess the baseline Locus of Control levels among selected nursing students before they participated in Mentorship programs

The assessment results indicate a significant shift in the locus of control among the studied group of 51 participants, attributable to a mentorship program. Pre-assessment data showed a balanced or external locus of control with 45-67% affirming statements like "Some students, such as student leaders and athletes, get free rides in college classes" (66.7%) and "I can be easily talked out of studying" (72.5%). Similarly, a study conducted in Indonesia by Auliya *et al*, 2023, which showed that the increase in one point on internal locus of control and academic self-efficacy will impact academic adjustment. To improve students'

academic adjustment, universities, especially academic departments, should focus on student locus of control and academic self-efficacy. They can approach learning problems better equipped and achieve their academic goals if they improve their internal locus of control and academic self-efficacy^[7].

Conversely, a comparative study was conducted in Egypt which found that Results of the present study indicated that more than half of students had internal locus of control rather than external locus of control, 55.9% of students had internal locus of control in Suez Canal University and 59.5% in Mansoura University, high learning performance and high perceived academic support of the participated students^[8].

3. Objective III: To examine the impact of Mentorship Program on the development of an internal Locus of Control among selected Nursing students

The assessment results indicate a significant shift in the locus of control among the studied group of 51 participants, attributable to a mentorship program. Pre-assessment data showed a balanced or external locus of control with 45-67% affirming statements like "Some students, such as student leaders and athletes, get free rides in college classes" (66.7%) and "I can be easily talked out of studying" (72.5%). Post-assessment results demonstrate a substantial shift towards an internal locus of control, with notable increases in positive responses to statements reflecting personal agency and effort, such as "College grades most often reflect the effort you put into classes" rising from 47.1% to 86.3% and "I consider myself highly motivated to achieve success in life" increasing from 52.9% to 90.2%.

This trend suggests that the mentorship program effectively enhanced the participants' belief in their ability to influence their own academic and personal success. In agreement on that, a study conducted by Demir *et al*, 2014, which showed that the mentoring program increased students' internal locus of control and active coping with stress. The increase in internal locus of control showed parallelism with students' behaviors of seeking social support^[9].

4. Objective IV: To associate the level of Locus of Control Development with selected demographic variables among nursing students

The results suggested that there are no significant associations between locus of control and the demographic variables of age, gender, marital status, nationality, and religion among the students, as none of the p-values are less than the significance threshold of 0.05.^[10]

On the other hand, a study conducted by Zaidi *et al*, 2013, which indicated that men have internal locus of control and women scored high on external locus of control. So, the gender difference is significant on Locus of Control. Implications of these findings and suggestions for future researches are discussed^[11]. Another study was conducted in Turkey and found out that male students have more inner control than female students ($t=4.890$, $p<.001$).

Students with high income level have more inner control than students with low- and middle-income level ($F=5.171$, $p<.01$). Students staying with their families have more inner control compared to those staying either at dormitories or houses ($F=8.175$, $p<.001$).

Students with 4 or more siblings have more inner control than students with a smaller number of siblings³⁰. The

study has been conducted for examining internal locus of control of the undergraduate students with respect to stream and gender. The sample consisted of 216 undergraduate students of two-degree colleges in Chandigarh i.e. one private and one government selected randomly (using lottery method). Data was collected using the Locus of Control Scale by Nongtdu and Bhutia (2018). The raw score for internal locus of control was taken into consideration; yielded separately according to the questionnaire used in this study. The findings revealed significant influence of stream on internal locus of control.

There was no significant influence of gender witnessed on internal locus of control. No significant interactional effect of stream and gender taken together was found on internal locus of control^[12]. The correlation analysis between the mentorship program and locus of control among the studied group ($n=51$) reveals insightful trends.

Pre-mentorship program, the perceived benefits had a low positive correlation ($r = 0.097$) with locus of control, which was not statistically significant ($p = 0.500$). However, post-mentorship program, the correlation increased to a moderate positive value ($r = 0.302$), which is statistically significant ($p = 0.031^*$). This indicates that participants who perceived more benefits from the mentorship program were more likely to develop an internal locus of control. Conversely, perceived barriers showed a negligible negative correlation pre-program ($r = -0.014$, $p = 0.925$) and a slight positive correlation post-program ($r = 0.092$, $p = 0.522$), both of which are not statistically significant. This suggests that perceived barriers did not have a meaningful impact on the locus of control in the context of the mentorship program^[13]. Overall, the mentorship program appears to be effective in enhancing an internal locus of control among participants by emphasizing perceived benefits.

Conclusion

The assessment of perceived barriers to the mentoring system among 51 respondents revealed significant issues for a notable minority, with 21.6% finding the objectives unsuitable, 25.5% experiencing scheduling issues, and 29.4% being annoyed with their mentor's conduct. Despite these challenges, the mentorship program led to a significant shift from an external to an internal locus of control among participants. Pre-assessment data indicated a balanced or external locus of control, but post-assessment results showed increased personal agency, with affirmations of personal effort and motivation rising substantially. The ANOVA results indicated no significant associations between locus of control and demographic variables such as age, gender, marital status, nationality, and religion.

Ethical considerations

The study was conducted after obtaining Institutional Ethical Clearance from the IRB Committee, Gulf Medical University, and Informed Consent were obtained from the nursing students before data collection. Anonymity and confidentiality were maintained.

Conflicts of Interest

There is no conflict of interest.

Contribution of Authors

The first three authors contributed to the development of the proposal and carried out the data collection, the fourth and

fifth authors supervised the entire research activity.

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