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Research Paper

Predictors of Creativity among College Faculty

Priya S.[1]*, Vijayalakshmi K.[2], Merlin A.[3]

ABSTRACT

Abstract: The development of students' creativity is a critical aspect of an effective educational system. Beyond the classroom, students need to be creative and adaptable to succeed. This study aimed to assess the predictors of creativity among college faculty. **Methods:** A descriptive correlational study was conducted among 120 faculty working at selected colleges, 60 faculty members from the college of arts and sciences and 60 faculty members from the health care field who were selected using purposive sampling technique. Data was collected using tools such as Proforma to assess the Background characteristics of the college faculty and Teaching for Creativity Scales through self-administration method. Faculty were requested to respond and submit their forms through online mode itself. The collected data were tabulated and analyzed using descriptive statistics like frequency distribution, mean, SD and inferential statistics such using one-way ANOVA/t test in SPSS 24. **Results:** Study findings revealed that there is statistically significant difference in creativity scores between health Care Faculty (80.62/150±14.863) and Arts & Science Faculty (63.37/150±18.644) ($p < 0.001$). i.e. Creativity scores were significantly high in the health Care Institutions than the Arts & Science Faculty. **Conclusion:** The importance of creativity in education should be incorporated using various approaches such as critical thinking, using technology in education, motivation, involving the students, parents and other stake holders in teaching learning process.

Keywords: *Predictors, Creativity Faculty, health care professionals, Arts and science faculty*

Teachers' creativity has a significant impact on students' academic progress. Research indicates that students' creativity scores are greater when they use flexible evaluation methods and cognitive mediation tools for divergent thinking (Gralewski & Karwowski 2019). Additionally, there is a favourable association between students' learning accomplishment and teachers' creativity in the classroom, highlighting the significance of teachers' attentive instruction in improving learning outcomes. Academic performance can be improved by fostering students' creativity through creative pedagogical approaches, underscoring the necessity of moving away from old rote procedures and towards creative learning approaches (Cremin & Chappell 2021). Thus, by encouraging engagement and

[1]Ph.D. Scholar, Apollo College of Nursing, The Tamil Nadu Dr. M.G. R Medical University, Chennai.
[2]Professor, Head of Department, Mental Health Nursing.
[3]Reader
*Corresponding Author

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creative learning settings, encouraging teacher creativity in course planning and delivery can have a favourable impact on students' academic results.

Numerous criteria are predictive of faculty creativity in colleges. Research productivity is positively correlated with research competency, research culture, and research accountability Creativity is influenced by personality attributes such as risk-taking, independence, and flexibility (Andiliou & Murphy 2010). Furthermore, a person's openness, family history, and cognitive capacities all have a big impact on how creative they are, while anxiety, dominance, and aggression exhibit negative associations with creativity, independence, cognitive control, and tolerance show favourable correlations. Additionally, students' creative tendencies are largely indicated by their quick use of knowledge, desire for innovation, and love of imagination. Institutions can better comprehend and encourage the creative endeavours of their faculty members by taking these elements into account.

A quasi-experimental study using a pretest-post-test design. Two groups of capstone nursing course participants were formed for the creation of healthcare-related products Faculty members used Interdisciplinary Teaching (IDT) to teach creative thinking skills to the intervention group (n = 61). Nursing faculty used regular teaching methods to instruct the control group (n = 84). According to this study, when compared to students in the control group, students who got the IDT intervention scored noticeably higher on tests of creative thinking and team creativity. According to these findings, teaching curricula should incorporate IDT from nursing and design faculty to encourage students' use of creativity while forming multidisciplinary student teams to create original, imaginative healthcare products. (Hsing & Liu. (2022).

Moreover, academic climate and creativity lecturer have been identified as predictors of lecturer competence, emphasizing the importance of the academic environment in nurturing creativity among faculty members. The academic culture of origin also shapes beliefs and teaching practices of novice academics, highlighting the impact of disciplinary continuity and integration within the academic structure on creativity. Overall, academic background influences faculty creativity through various interconnected factors and institutional support mechanisms.

In order to improve student results, teacher creativity can be successfully quantified and used into educational policies. Studies underscore the significance of fostering creativity in educators given their pivotal role in enhancing the calibre of education. The effectiveness of education is greatly impacted by the creative practices of teachers and it is essential to place a high priority on creativity in teacher development and training in order to match instructional strategies with societal ideals.

It is known fact that, the undergraduate nursing education in India has recently undergone tremendous changes in response to the overall development of the country and Nursing profession (Vijayalakshmi et al, 2014). In line with global advancements and technological progress, the teaching and learning activities in healthcare and other institutions, must be conducted with innovation and creativity through validated teaching learning and evaluation methods (Vijayalakshmi & Revathi, 2017, Vijayalakshmi et al, 2016). Research indicates that school culture and principal intrapreneurial leadership have a favourable impact on teacher innovation, demonstrating the connection between teacher outcomes, creativity, and leadership. Educational systems can establish environments that support and encourage innovative teaching methods, which will ultimately lead to enhanced student learning

outcomes, by assessing and nurturing teacher creativity through training programmes and policy reforms.

Therefore, assessing the creativity of the teaching faculty and identifying its predictors are crucial for understanding, cultivating, and strengthening the positive factors that foster creativity. This will be instrumental and in shaping the future citizens of the country. Hence, this study was undertaken by the researchers to assess the Predictors of Creativity of College Faculty Working at Nursing College and Arts and Science College.

METHODOLOGY

Study was conducted after obtaining ethical clearance from IEC of Apollo College of Nursing, Chennai and permission from the concerned authorities of the settings. A descriptive correlational study was conducted among 120 faculty working at selected colleges 60 faculty members from the college of arts and sciences and 60 faculty members from the health care who were selected using purposive sampling technique. Data was collected using tools such as Proforma to assess the Background characteristics of the college faculty and Teaching for Creativity Scales which is a standardized tool developed by Rubenstein (2013) through self-administration method. It consists of 30 items with 4 subcomponents (Teacher Self-efficacy-14 items, Environmental encouragement-3 items, Societal Value-9 items & Student potential-5) rated on a 5-point rating scale, scores varying from 1-5. i.e. 5-Strongly agree, 4-Agree, 3-Neither agree nor disagree, 2-Disagree, 1-Strongly disagree.

Tools were validated and reliability was established. The modification and suggestions of experts were incorporated in the final preparation of tools. Faculty were requested to respond and submit their forms through online mode itself. The collected data were tabulated and analyzed using descriptive statistics like frequency distribution, mean, SD and inferential statistics such as One way ANOVA/t test using SPSS 24.

RESULTS

Table 1: Frequency and Percentage Distribution of Background Characteristics of College Faculty. **(N=120)**

Background Characteristics	**Health Care Faculty (n=60)**		**Arts & Science Faculty (n=60)**	
	f	**%**	**f**	**%**
Age in Years				
≤ 30 Years	18	30.0	21	35.0
31-40 Years	20	33.3	19	31.7
> 40 Years	22	36.7	20	33.3
Gender				
Male	8	13.3	7	11.7
Female	52	86.7	53	88.3
Qualification				
UG	18	30	16	26.7
PG	42	70	44	73.3
Current Designation				
Asst Lecturer	16	26.7	25	41.7
Lecturer	6	10.0	10	16.7
Asst Professor	14	23.3	5	8.3

Background Characteristics	Health Care Faculty (n=60)		Arts & Science Faculty (n=60)	
	f	%	f	%
Associate Professor/ Reader	12	20.0	9	15.0
Professor	12	20.0	11	18.3
Total years of Experience				
≤ 3 years	11	18.3	22	36.7
4-5 years	7	11.7	5	8.3
6-10 years	14	23.3	12	20.0
>10 years	28	46.7	21	35.0
Marital Status				
Married	46	76.7	36	60.0
Unmarried	14	23.3	24	40.0
Native State				
Tamil Nadu	55	91.7	57	95.0
Kerala	5	8.3	-	-
Andhra Pradesh/Telangana	-	-	3	5.0
Karnataka	-	-	-	-
Others	-	-	-	-

The table 1 reveals that, majority of the faculty were aged above 40 years (36.7 & 33.3%), females (86.7 & 88.3 %), with PG qualification (70 & 73.3%), married (76.7 & 60%), from Tamil Nadu (91.7 & 95%). Regarding other variables- Designation- they were working as Asst Professor/ Associate Professor/ Reader/ Professor (23.3&18.3 %) and had above 10 years of experience (46. 7& 35%) in Health Care and arts and science faculty respectively.

Fig: 1 depicts that, few faculty were also qualified with M. Sc Psychology (10 &1%), M.A Sociology (2&6%), M.B.A (5&6%) and other degrees (7&13%) such as post graduate diploma in Yoga, computer applications as additional qualification among Health Care and arts and science faculty respectively.

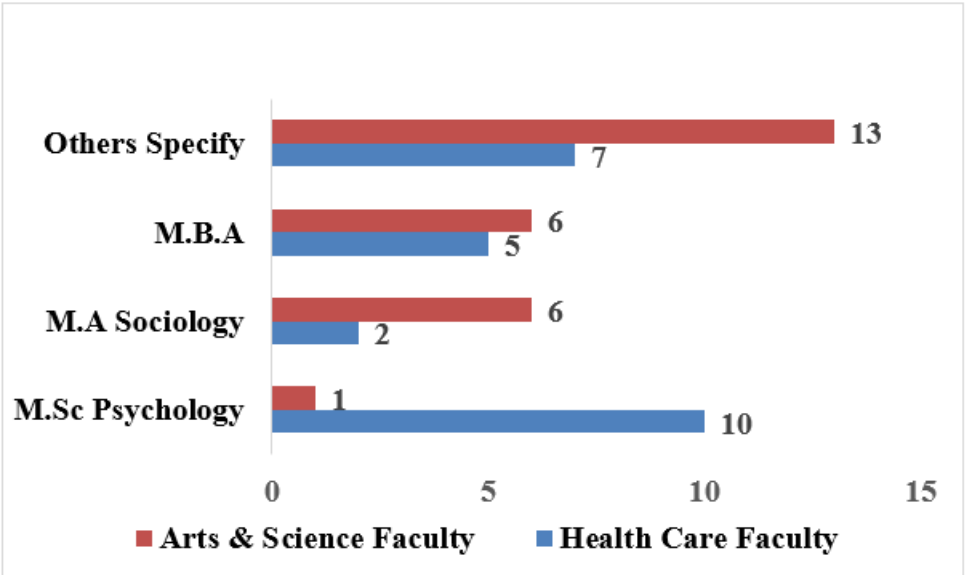

Fig: 1 Percentage Distribution of Additional Qualification of Faculty among Health Care and arts and science faculty

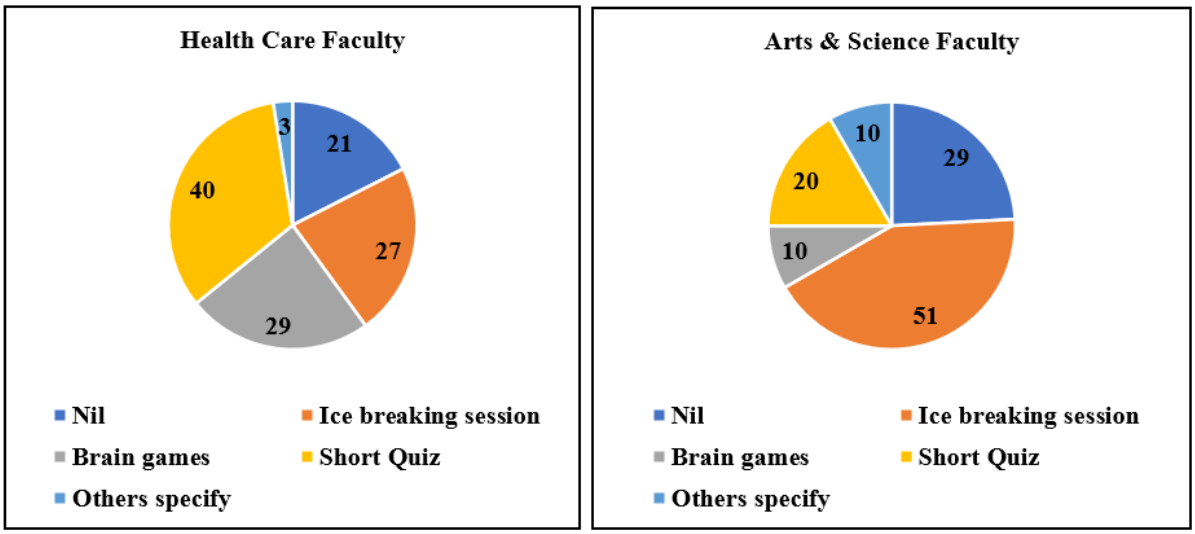

Fig 2 Percentage Distribution of use of any other strategies to complement regular teaching in their class by the college faculty

Fig 2, reveals that, regarding use of any other strategies to complement regular teaching in their class, 21 & 22 % of them had not used any strategies, 18&31% had used ice breaking sessions, 29&10% had used brain games, 40 & 20% had used short quiz and 3 &10 % had used other strategies such as connecting words, images, group discussion etc. in the Health Care and arts and science faculty respectively.

Table 2: Frequency and Percentage Distribution of Levels of Creativity among college Faculty **(N=120)**

Creativity Levels and Scores	**Health Care Faculty (n=60)**		**Arts & Science Faculty (n=60)**	
	f	**%**	**f**	**%**
Highly creative (**111-150)**	4	6.7	1	1.7
Creative **(71-110)**	44	73.3	20	33.3
Less creative **(30-70)**	12	20.0	39	65.0

Table 2 reveals that among health Care Faculty, majority of them had average level of creativity 73.3% whereas in the Arts & Science Faculty 65% of them were less creative.

Table 3: Comparison of Mean and SD of Creativity Scores between the Health Care Faculty and Arts & Science Faculty (N=120)

Components (Max Score)	**Health Care Faculty(n=60)**		**Arts & Science Faculty (n=60)**		**Mean dif**	**Ind 't' value**	**p Value**
	Mean	**SD**	**Mean**	**SD**			
Self-Efficacy (65)	35.78	8.48	27.92	11.04	7.86	4.37	.000
Environmental encouragement (20)	10.80	2.80	8.57	2.72	2.23	4.42	.000
Societal Value (45)	23.87	5.36	18.82	5.77	5.05	4.96	.000
Student potential (20)	10.17	2.66	8.07	2.03	2.10	4.85	.000
Global Score (150)	80.62	14.86	63.37	18.64	17.25	5.60	.000

Table-3 reveals that there is statistically significant difference in global creativity scores between health Care Faculty (80.62±14.863) and Arts & Science Faculty (63.37±18.644) ($p < 0.001$). Creativity scores on sub components also varied between health Care Faculty and Arts & Science Faculty i.e. Creativity scores were significantly high in the faculty working in health Care Institutions than the Arts & Science Faculty ($p < 0.001$).

***Table 4: Correlation of Creativity Scores with Age and Years of Experience among College Faculty* (N=120)**

Variables	**Health Care Faculty (n=60)**		**Arts & Science Faculty (n=60)**	
	r value	**p value**	**r value**	**p value**
Age	0.048	0.715	0.161	.219
Years of Experience	0.157	0.230	0.196	.133

Table 4 reveals that, there is no significant correlation between age, years of experience and Creativity Scores among College Faculty.

Table 5: Association Between creativity scores with their Selected Background Variables among College faculty (N=120)

Variables	**Health Care Faculty (n=60)**				**Arts & Science Faculty (n=60)**			
	n	**Mean**	**SD**	**Test Statistics (t/F) & p value**	**n**	**Mean**	**SD**	**Test Statistics (t/F) &p value**
Gender								
Female	8	85.13	15.23	F=0.92	7	59.43	14.140	F=0.59
Male	52	79.92	14.84	p=0.36	53	63.89	19.208	p=.557
Qualification								
UG	18	75.33	6.22	F=3.38	16	58.81	24.175	F=1.30
PG	42	82.88	16.86	p=.071	44	65.02	16.203	p=0.25
Current Designation								
Asst Lecturer/Tutor	16	77.31	6.151	F=1.04 p=0.39	25	63.08	21.004	F=0.28 p=0.88
Lecturer	6	87.67	29.296		10	65.30	14.997	
Asst Professor	14	76.57	7.623		5	61.60	11.415	
Associate Professor/ Reader	12	82.25	18.385		9	67.89	23.321	
Professor	12	84.58	15.894		11	59.36	16.151	

Table 5 reveals that there is no statistically significant association between selected background variables and Creativity scores among Faculty ($p > 0.05$).

DISCUSSION

Study findings revealed that the majority of faculty members in the Health Care faculty had an average degree of creativity of 73.3%, while 65% of faculty members in the Arts & Science faculty were less creative. Study results also revealed that there is a statistically significant difference in creativity scores between health Care Faculty and Arts & Science

Faculty ($p < 0.001$). i.e. The Health Care Faculty exhibited significantly higher creativity scores compared to the Arts & Science Faculty.

Health Care faculty members tend to be more creative on average, which could be attributed to the field's dynamic character, multidisciplinary collaboration, emphasis on practical application, research innovation, and need for the continuous professional development. This also may be due to the fact that, for faculty of health care profession there is a need for updating the knowledge and exploring the current trends and needs using innovation and technology.

In a systematic review conducted by Saeedi, et al (2021) reported that, health care faculty members are often more creative due to the dynamic nature of the field, emphasis on practical application, and continuous professional development. In contrast, faculty members in the arts may exhibit reduced desire for innovation in some areas due to a more traditional academic focus. However, the field of arts in health, which includes arts in health care and arts in public health, has emerged as a formal practice over the past three decades, emphasizing the use of arts to enhance health and well-being in diverse contexts.

Across fields, creativity takes on diverse forms. The arts and sciences encourage creativity through artistic expression, scientific inquiry, and academic study, whereas the healthcare professions place a strong emphasis on dynamic problem-solving and interdisciplinary teamwork. In their own fields, both faculties foster innovation.

The research findings indicate no significant correlation between age, years of experience, and Creativity Scores among college faculty members. Thus, the initial hypothesis suggesting such a correlation was rejected.

The lack of significant correlation between age, years of experience, and Creativity Scores in college faculty may be due to factors such as sample characteristics, measurement limitations, the complexity of creativity, external influences, or statistical chance. Overall, the rejection of the hypothesis suggests that age and years of experience may not be reliable predictors of creativity scores among college faculty.

Study findings also revealed that there is no statistically significant association between selected background variables and Creativity scores among Faculty ($p > 0.05$). Results suggests that these variables do not strongly influence creativity scores in this context.

Factors strongly influencing creativity in teaching include autonomy, supportive environments, collaboration, professional development, student engagement, flexible curriculum, feedback, reflection, and teacher passion. Richardson & Mishra (2018). However, these factors could not be analysed in this study due to homogeneity of faculty variables and practical constraints.

To improve creativity in teaching and learning, a policy framework should focus on several key areas. Firstly, professional development programs should be established to train educators in creative teaching methods, ensuring they can effectively engage students. Secondly, curriculum design should integrate activities that stimulate creativity across all subjects. Adequate resource allocation for art supplies, technology, and diverse educational materials is essential to support these efforts. Assessments should be restructured to include measures of creativity, encouraging students to think innovatively. Collaboration with

external partners such as businesses and cultural institutions can provide real-world contexts for creative learning.

Researches also indicates that the creative, innovative and valid teaching methods such as Simulation based learning, (Saraswathi,2022) OSCE ((Vijayalakshmi & Revathi, 2014, Vijayalakshmi et al, 2016 & Vijayalakshmi & Revathi, 2014)), Online teaching and Learning (Kalaimathi et al, 2020), Bibliotherapy (Metha et al, 2016), can also be used as effective innovative techniques of learning process.

Additionally, technology should be leveraged to facilitate creative expression and problem-solving. Empowering teachers to experiment with new methods and involving parents (Vijayalakshmi & Muniappan, 2016), Integrated teaching using patient experiences as a teaching tool (Ramya et al, 2021), cultivating the habit of research as a passion rather than pressure (Priya et al, 2018), in showcasing students' creativity and teaching learning activities of students can further foster a culture of innovation in education.

Additionally, the teaching and learning process can be made more effective and engaging by incorporating innovative and alternative approaches and ice breaking sessions such as humor therapy (Debashree et al., 2017), laughter therapy (Meenakshi et al., 2014), and Virtual reality therapy (Hemalakshmi et al., 2018; Anusha et al., 2018; Priyanka et al., 2021), rather than relying solely on traditional and monotonous methods. These innovative approaches in turn can enhance self-esteem and improve academic performance among students' community which is the major aim of education (Priya et al, 2019).

CONCLUSION

The importance of creativity in education cannot be overstated, as it fosters critical thinking, increases motivation, engages students, and gives them the tools they need for the future. Teachers may encourage collaborative learning, a diversity of viewpoints, and creative problem-solving by welcoming creativity. This method not only enhances the educational process but also gives pupils the tools they need to develop into flexible, innovative thinkers who can successfully negotiate the challenges of today's complicated environment.

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Conflict of Interest

The author(s) declared no conflict of interest.

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