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Mental health and performance anxiety of D.El.Ed. students: A correlational analysis

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Abstract

A descriptive correlational study was initiated to find out the relationship between mental health and performance anxiety of D.El.Ed. students of Kerala. The study further explored the differential influence of demographic factors like gender, residential locale, entry qualification and type of institution on the correlation between mental health and performance anxiety. Data were collected from 316 pre-service elementary school teachers (male = 44; female = 272) by administering the Mental Health Scale for Pre-service Elementary School Teachers and the Performance Anxiety Scale for Pre-service Elementary School Teachers, both developed by the investigators. The Pearson product-moment correlation and Fisher's z-transformation test were the major statistical techniques used for analysing the data. The results exposed presence of a negative but significant correlation between the total score of mental health and performance anxiety. The different components of mental health were also found to have significant negative correlation with various components of performance anxiety. Demographic factors like gender, residential locale, entry qualification and type of institution have no significant differential influence on the degree of relationship between mental health and performance anxiety of D.El.Ed. students.

Keywords: Mental health, performance anxiety, D.El.Ed. students

Introduction

Mental health is a critical component of overall well-being and significantly impacts an individual's quality of life and satisfaction. Studies have reported high incidence of mental health problems among students of higher education in recent years (Campbell, Blank & Cantrell, 2022; Sheldon, Simmonds-Buckley & Bone, 2021; Kamarunzaman, Shanthi, Nen, Zulkifli & Shamsuri, 2020) [3, 11, 5]. Auerbach *et al.* (2016) [2] conducted a comprehensive worldwide study including 14,000 students from 19 institutions in 8 countries. Of these, 35% of students satisfied the diagnostic criteria for at least one prevalent mental health disorder. Among the many factors that contribute to mental health problems in college students, text anxiety is in the forefront (Thiriveedhi, Myla, Priya, Vuppuluri, Dulipala & Vudathaneni, 2023) [13]. Anxiety among students of higher learning is a significant and growing concern (Khoshlessan & Das, 2017; Rehman, 2016) [6, 10]. It can take many forms like anticipatory anxiety, social anxiety, text anxiety, performance anxiety and so on. Researches have indicated that anxiety disorders were the most common mental health diagnoses among college students in many parts of the world (Suryaningrum, 2021; Lee, Jeong & Kim, 2021; AlKandari, 2020) [12, 7, 1]. Numerous psychological and psychiatric studies carried out in both developed and developing nations over the course of the last several decades have demonstrated that college students have a higher prevalence of various forms of anxiety than does the general population (Mayer, Santos & Silveira, 2016; Pedrelli, Nyer & Yeung, 2015; Ibrahim, Kelly & Adams, 2013) [8, 9, 4]. Several factors contribute to anxiety among college students, including academic pressures, financial stress, social challenges, and the transition to independence. Additionally, the pervasive use of social media and high expectations from both society and oneself can also contribute to feelings of anxiety. The type of academic programme the student is undergoing is a decisive factor in the type of anxiety and its magnitude he/she experience. The pre-service teachers have to play varied curricular roles during the course of their study, part of which as a learner and part as teacher. Apart from taking different tests, their successful performance as a trainee teacher during the internship is a big challenge causing performance anxiety in trainee teachers. Performance anxiety is the fear of performing or presenting in front of an audience, and it can occur in various situations such as taking classes, public speaking, taking exams, or performing on stage.

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Mental health and performance anxiety are closely related, as performance anxiety is a type of anxiety disorder that can significantly impact mental health. In this context, the present study is a modest attempt to explore the relationship between mental health and performance anxiety of pre-service elementary school teachers of Kerala.

Objectives

The specific objectives of the study were:

1. To find out the relationship between mental health and performance anxiety of D.El.Ed. students (for total sample and sub-samples based on gender, residential locale, entry qualification and type of institution).
2. To find out the mental health correlates of performance anxiety of D.El.Ed. students.
3. To compare the relationship between mental health and performance anxiety for sub-samples based on gender, entry qualification and type of institution.

Hypotheses

The following null hypotheses were tested for the study:

1. There will be no significant relationship between mental health and performance anxiety of D.El.Ed. students.
2. There will be no significant correlation among different components of mental health and performance anxiety.
3. There will be no significant difference in the degree of relationship between teaching competency and performance anxiety of D.El.Ed. students with respect to gender, entry qualification, and type of management of the institution.

Methodology of the Study

Method: The descriptive correlational study employed normative survey method for collecting data.

Population: The population under study consists of second-year preservice primary school teachers, doing their Diploma Course in Elementary Education (D.El.Ed.) at various Institutes of Teacher Education (ITE) affiliated with SCERT (Kerala government) and recognised by National Council for Teacher Education (NCTE, Govt. of India), located within the revenue boundary of Kerala, India.

Sample: The sample consisted of 316 second year D.El.Ed. students (male = 44; female = 272) drawn from different Institutes of Teacher Education, selected on a stratified random basis from Wayanad, Kannur and Kasaragod districts of Kerala (India). The average age of the sample is 19.81 years with a standard deviation of 1.68.

Tools Used

a) Mental Health Scale for Pre-service Elementary School Teachers (MHS): It is a 60-item, five-point

Likert-type rating scale developed by Saumya and Afeef (2022) [14]. The MHS provides an objective measure of the psychological state of pre-service elementary school teachers (D.El.Ed. students) to cope with normal stresses of life, functioning at a satisfactory level of emotional and behavioural adjustment, and work productively. It consists of 10 sub-tests, measuring ten independent components of mental health viz.: (1) Optimism, (2) Adaptability, (3) Sense of security, (4) Regularity of habits, (5) Perception of reality (6) Emotional maturity (7) Social conformity (8) Positive attitude towards self (9) Positive attitude towards others (10) Freedom from negativism. Each of the sub-tests in the scale consists of six statements, which the respondent is supposed to rate on a five-point scale (Strongly agree, Agree, Undecided, Disagree and strongly disagree). The MHS has a criterion validity of 0.73 and split-half reliability of 0.79.

b) Performance Anxiety Scale for Pre-service Elementary School Teachers (PASPET):

The performance anxiety of the D.El.Ed. students were measured with the help of the PASPET, which gives a quantitative measure of the feeling of fear, nervousness, uneasiness and apprehension that the students experience in situations where they are being observed or evaluated by others. The PASPET is a 40-item, five-point Likert-type scale covering five dimensions; (1) Affective Manifestations, (2) Autonomic Arousal, (3) Behavioural Manifestations, (4) Cognitive Manifestations, and (5) Somatic Manifestations. The items are to be rated on five-point, viz., Strongly Agree, Agree, Neither Agree nor Disagree, Disagree and Strongly Disagree. The criterion validity of the PASPET is 0.77 and the split-half reliability of 0.84.

Procedure: The data required for the study were collected partly by administering the tools online with the help of Google Forms, and partly by administering the instruments directly in group situation. A Personal Data Sheet was also administered to collect the demographic information needed for the study. The response sheets and the Google Forms were scored after scrutiny of their completeness and the scores were consolidated on Excel sheet and analysed subsequently with the help of SPSS.

Analysis and Interpretation

The relationship between mental health and performance anxiety was found out for the total sample and sub-samples by computing coefficient of correlation between the two variables by employing Pearson's product moment method. The data and result of the correlational analysis done in this context is given in Table 1.

Table 1: Relationship between mental health and performance anxiety of D.El.Ed. students

Groups	Sample	N	r	SEr	Sig.	RPOp	
						.05 level	.01 level
Whole	Total	316	-0.716	0.027	.001	-0.77 – -0.66	-0.79 – -0.65
Gender	Male	44	-0.648	0.087	.001	-0.82 – -0.48	-0.87 – -0.42
	Female	272	-0.743	0.027	.001	-0.80 – -0.69	-0.81 – -0.67
Residential locale	Rural	199	-0.634	0.042	.001	-0.72 – -0.55	-0.74 – -0.53
	Urban	117	-0.749	0.041	.001	-0.83 – -0.67	-0.85 – -0.64
Entry Qualification	Higher Sec.	212	-0.708	0.034	.001	-0.77 – -0.64	-0.80 – -0.62
	Degree	104	-0.703	0.050	.001	-0.80 – -0.61	-0.83 – -0.57

Type of Management	Govt.	64	-0.686	0.066	.001	-0.82 – -0.56	-0.86 – -0.52
	Aided	113	-0.709	0.047	.001	-0.80 – -0.62	-0.83 – -0.59
	Unaided	139	-0.717	0.041	.001	-0.80 – -0.64	-0.82 – -0.61

The coefficients of correlation (r) between mental health and performance anxiety, estimated for the total sample and different sub-samples of D.El.Ed. students, given in Table 4.29, are all negative and significant beyond 99% confidence interval. It exposes that there is significant negative correlation between mental health and performance anxiety of D.El.Ed. students. The coefficient of correlation between the variables estimated for the total sample is -0.716 with a standard error (SE_r) of 0.027. The population value of the coefficient of correlation will lie between -0.77 and -0.66 at .05 level and between -0.79 and -0.65 at .01 level. The highest coefficient of correlation estimated is for

the sub-sample of urban students (r = -0.749; p < .001), while the lowest correlation computed is for rural students (r = -0.634; p < .001). It indicates that there is a ‘strong negative correlation’ between mental health and performance anxiety of D.El.Ed. students of Kerala.

The relationship between different components of mental health and performance anxiety of the D.El.Ed. students were found out by estimating the coefficient of correlation between the scores on 10 subtests of the Mental Health Scale and the total score on Performance Anxiety Scale. The correlation matrix (Table 3) presents the r-values estimated incidentally for the total sample.

Table 2: Mental health correlates of performance anxiety of D.El.Ed. students

Constructs	Affective	Autonomic	Behavioural	Cognitive	Somatic	Performance Anxiety (Total)
Optimism	-.320**	-.594**	-.475**	-.487**	-.325**	-.714**
Adaptability	-.140*	-.512**	-.372**	-.487**	-.224**	-.564**
Sense of security	-.142*	-.477**	-.245**	-.468**	-.305**	-.518**
Perception of reality	-.167**	-.470**	-.385**	-.308**	-.271**	-.519**
Emotional maturity	-.226**	-.536**	-.376**	-.390**	-.289**	-.585**
Social conformity	-.286**	-.403**	-.360**	-.321**	-.240**	-.523**
Mastery of environment	-.276**	-.420**	-.401**	-.361**	-.247**	-.556**
Positive attitude towards self	-.240**	-.493**	-.381**	-.411**	-.264**	-.579**
Positive attitude towards others	-.196**	-.496**	-.366**	-.404**	-.281**	-.562**
Freedom from negativism	-.226**	-.494**	-.377**	-.450**	-.279**	-.590**
Mental Health (Total)	-.280**	-.614**	-.468**	-.512**	-.341**	-.716**

** Significant at .01 level * Significant at .05 level

The result of the correlational analysis reveals that ‘optimism’ is the mental health element that correlate highest with performance anxiety (r = -0.714; p < .01), whereas sense of security is the mental health element that exhibit lowest correlation with performance anxiety (r = -0.518; p < .01). Likewise, autonomic arousal is the element of performance anxiety that is correlated to the highest degree with mental health (r = -0.614; p < .01), while affective manifestations show the lowest degree of relationship with mental health (r = -0.280; p < .01). The correlations between the elements of mental health and that of performance anxiety are all negative and significant. Among the different elements of the variables, the lowest correlation was found between adaptability and affective

manifestation (r = -0.140; p < .05); while the highest r-value estimated is between the autonomic arousal and optimism (r = -0.594; p < .01).

The sub-samples of D.El.Ed. students based on their gender, residential locale, entry level educational qualification, and type of institution studying were further compared to find out the significant difference, if any, between the sub-samples with respect to the degree of correlation between mental health and performance anxiety. Fisher’s z-transformation test was used to find out the significance of the differences between the correlations in sub-samples compared. The data and result of the analysis done in this context is given in Table 3.

Table 3: Comparison of the sub-samples of D.El.Ed. students with respect to the relationship between their mental health and performance anxiety.

Group	Sub-samples	Statistical Indices				Z observed	Sig.	
		N	r	r correct	z			
Gender	Male	44	-0.648	-0.65	0.775	1.105	0.269	
	Female	272	-0.743	-0.74	0.951			
Residential locale	Rural	199	-0.634	-0.63	0.741	1.889	0.058	
	Urban	117	-0.749	-0.75	0.973			
Entry Qualification	Hr. Second.	212	-0.708	-0.71	0.887	0.082	0.934	
	Graduate	104	-0.703	-0.70	0.867			
Type of Management	1	Govt.	64	-0.686	-0.69	0.848	0.281	0.779
		Aided	113	-0.709	-0.71	0.887		
	2	Govt.	64	-0.686	-0.69	0.848	0.396	0.692
		Unaided	139	-0.717	-0.72	0.908		
	3	Aided	113	-0.709	-0.71	0.887	0.127	0.899
		Unaided	139	-0.717	-0.72	0.908		

The result of the Fisher's z-transformation test shows that none of the sub-samples of D.El.Ed. students show significant difference in the correlation between mental health and performance anxiety. In another words, no significant difference exists in the relationship between mental health and performance anxiety of sub-samples of D.El.Ed. students based on their gender, residential locale, entry qualification and type of management of the institution.

Conclusions

The analysis exposed the presence of a negative but significant correlation between mental health and performance anxiety of pre-service elementary school teachers. It indicates that every increase in mental health is followed by a corresponding decrease in the performance anxiety of D.El.Ed. students. The first hypothesis formulated in this context, (there will be no significant relationship between mental health and performance anxiety of D.El.Ed. students) is, therefore, rejected. The correlational analysis also brought out the all the components of mental health are significantly and negatively correlated with the different components of performance anxiety in varying degrees. Promotion of different components of mental health will be helpful in regulating the performance anxiety of digital literacy skills. In the light of the finding emerged from the analysis, the second hypothesis (there will be no significant correlation among different components of mental health and performance anxiety) is also rejected. The results of the Fisher's z-transformation test revealed that socio-demographic factors like gender, residential locale, entry level qualification and type of management of the institution are not significant decisive factor in discriminating D.El.Ed. students in terms of the correlation between their mental health and performance anxiety. The third hypotheses formulated for the study (there will be no significant difference in the degree of relationship between teaching competency and performance anxiety of D.El.Ed. students with respect to gender, entry qualification, and type of management of the institution) is, therefore, accepted.

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