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Critical Situation and Bounce Back: Understanding the Academic Resilience of Prospective Teachers at Secondary Level

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ABSTRACT

Academic resilience is the capacity of prospective teachers to persist, adapt and achieve in their academic activities in the face of difficulties, hindrances, or adverse conditions. The context of academic resilience among prospective teachers can be influenced by various factors which are included in his study. The purpose of this study was to compare the academic resilience of the prospective teachers of West Bengal in terms of their gender, residential setup, and family income. Here, academic resilience is studied overall and its three different dimensions i.e., (i) perseverance, (ii) reflecting and adaptive help-seeking and (iii) negative affect and emotional response separately. The present study was conducted using a descriptive survey approach. B.Ed. Students were the participants, and five hundred and three samples were considered using simple random techniques. A standardized tool named the Academic Resilience Scale (ARS-30) by Simon Cassidy (2016) was used to collect the relevant data. Data were analyzed through descriptive and inferential statistics. The study found that academic resilience is not determined by the gender of prospective teachers when it is considered either overall or dimension-wise separately. However, the Nature of the residential setup and family income greatly contributed to developing their academic resilience. **©authors**

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Introduction

Teachers worldwide focus on leading their students towards success and achievement. It has become a challenge for teachers to identify what causes some students to succeed more in comparison to others. Over the years, a multitude of factors like talent, practice, prerequisite knowledge, confidence, etc. have emerged pertaining to the success of students. The basic focus of teachers is to enhance factors that alleviate the student's learning process (Mohan & Kaur, 2021). The context of academic resilience among prospective teachers can be influenced by various factors, including personal experiences, prior education, and socio-economic circumstances. Here are some features that may contribute to the background of academic resilience among prospective teachers.

From The Various Literature Reviews, Academic resilience is defined as the ability to overcome adversity that poses a threat to a student's educational progress (Chisholm-Burns et al., 2019). The academic performance and experiences of prospective teachers before entering the program can play an important role. Students with a history of consistent academic success may have a strong base in academic resilience. An individual who has handled and overcome academic challenges in the past may have developed a greater amount of resilience. Students from lesser socio-economic backgrounds may face additional challenges related to access to resources, lack of financial assistance, and external responsibilities. Overcoming these obstacles can contribute to a high level of academic resilience. A student's resilience can significantly influence ethnic values, family hopes, and supportiveness. Resilience in teachers is a relational concept that can impact student learning and achievement (Gu, 2014). Academic resilience is a critical factor for prospective teachers, influencing their ability to navigate challenges, stress, and changes while excelling in adverse circumstances (Parihar & Tiwari, 2020). Özkara et al. (2016) found (cited in Fang et al., 2020) that physical activity and teacher support are significant contributors to enhancing the psychological resilience of prospective teachers.

Prospective teachers who have a clear purpose and a strong commitment to their education with career aims may be more expected to exhibit academic resilience. Prospective teachers can provide a source of motivation during challenging times by knowing why they are pursuing it. Academic resilience can contribute to understanding one's learning style and preferences. Prospective teachers are conscious of how they best engage and retain information and can adapt their study strategies accordingly. The key component of resilience in one's life is the capacity for confidence that would make one succeed. In academic resilience, various critical roles have been played, such as psychological and emotional well-being features with mental health, emotional steadiness, and overall well-being. Academic resilience has been linked to positive educational and psychological outcomes such as school enjoyment, class participation, and self-esteem (Martin & Marsh, 2006). Prospective teachers may benefit academically overall and develop resilience if they receive targeted assistance where they may have problems. Academic resilience is the capacity of a prospective teacher to persist, adapt, and achieve in their academic activities in the face of difficulties, hindrances, or adverse conditions. When the tendency to bounce back prevails, individuals cannot act in an undesirable manner as a result of the impacted feeling; instead, they will stay calm and stoic (Girija & Mani, 2017). Academic resilience is the capability to overcome challenges in one's learning process by merging psychological, emotional, and practical skills. Educational resilience, as defined by scholars in psychology and social work, focuses on students who are considered "at risk" and evaluates their ability to overcome obstacles in the educational system (Portnoi & Kwong, 2015). Romano et al. (2021) compared those with higher academic resilience to those with minor resilience, they claimed that students with higher academic resilience are more likely to be driven and passionate about their studies. Additionally, those students who are academically resilient display a great amount of self-control and self-discipline. It is evident that from the study of Permatasari et al. (2021) social support from

peers, family, and teachers during academic challenges has been found to significantly boost academic resilience and help students to overcome obstacles. Academic resilience, as it relates to potential teachers, refers to their capacity to resist and surpass the difficulties and obstacles they may face throughout their schooling and future teaching professions (Perez et al., 2023). While there is a significant amount of literature on academic resilience among students, research on academic resilience among potential teachers is expressively sparse (Kinchin, 2017). Despite the importance of resilience for teachers in the current educational situation, there is not enough study on the subject, particularly concerning aspiring teachers. The necessity for further research into the academic resilience of potential teachers is emphasized by this gap in the literature. There is broad agreement in the academic resilience literature that it is helpful for teachers and educators to support students' growth in this area (Mwangi et al., 2017). Dalimunthe et al. (2021) indicated that the constructs of control, coordination, empathy, perseverance, and adaptability have high and precise validity and reliability in measuring academic resilience of aspiring science pre-service teachers. Prospective teachers' level of resilience varies depending on their gender, willingness to choose a department, socioeconomic situation, parental attitude, hopes for future ability to express themselves, location, etc. (Özbey et al., 2013). Ariyanto et al. (2019) stated problem-based learning helps to increase the mathematical resilience of aspiring math teachers. According to Karabıyık (2019) reflecting and adaptive help-seeking were the most common types of academic resilience behavior among preservice English instructors, followed by perseverance, negative affect, and emotional response. In terms of gender differences in academic resilience aspects, the results were insignificant. Negative affect and emotional response were found to be a negative but insignificant correlate of Grade Point Average in the correlational analysis. Even if the outcome was insignificant, it is important not to disregard the impact bad affect and emotions can have on student progress. Perseverance, on the other hand, was found to be positively related to Grade Point Average by Cassidy (2016). Preservice teachers discussed both positive and negative effects of contextual resources, including an increase in support from guides at the teacher education college that encouraged preservice teachers to seek help more frequently, feeling empowered by having the knowledge and skills required for the new situation (like online teaching), and the lack of opportunities to share experiences. In comparison to the results from earlier samples, the study also discovered higher scores on the two subscales of the coping self-efficacy short-form. Again, this might be connected to the COVID-19-related metrics; without genuine face-to-face instruction during practice, it might be challenging to "leave options open" when certain teaching-related issues arise (Fokkens-Bruinsma et al. 2023). Overall, the academic resilience of prospective teachers is a powerful force that can significantly enhance the educational experience and outcomes for students and contribute to the overall effectiveness and well-being of the educational system.

This study rationally explains the increased concern in our field of aspiring teachers productively struggling to make a social and positive impact and overcome obstacles while navigating classrooms. Martin and Marsh (2006) suggest that "academic resilience is the ability to adapt to change and to overcome adversity, and it is a crucial factor influencing educational outcomes and preparedness for the teaching profession". The rhetoric of academic and mental health stressors for future teachers: intense degree requirements, a difficult teaching practicum, and personal problems such experiences. Such experiences can have a profound effect on their well-being, learning, and, ultimately, their effectiveness as teachers (Masten, 2014). This study is focused on secondary-level prospective teachers as they work in an exceptionally challenging educational context, rife with both the intricacies of developing adolescence and the educational goals determined by the curriculum (Howard & Johnson, 2000). Moreover, resilience is increasingly recognized as important in education

due to the COVID-19 pandemic and subsequent transitions to remote education, which caused many prospective teachers to experience major disruptions in their education and training (Ungar, 2021). Understanding how pre-service teachers are able to "bounce back" from these high-stakes environments may help inform educational institutions to create well-targeted interventions that enhance academic resilience.

1.1 Objectives

1. To compare the overall academic resilience and its dimensions with respect to the gender of prospective teachers.
2. To compare the overall academic resilience and its dimensions regarding their residential setup.
3. To analyze the overall academic resilience and its dimensions in terms of the annual family income of prospective teachers.

2. Method

Design

The study has been done through a descriptive survey method. All objectives have been achieved through quantitative techniques.

Participants

B.Ed. students under two years' program in the teacher's training colleges of the state of West Bengal, India were the target population here. Simple random sampling is adopted here. Five hundred and three students pursuing a bachelor of education have been taken from the government as well as self-financed teachers' training colleges of West Bengal.

Out of 503 prospective teachers, 230 were taken from rural areas and 124 were taken from urban areas. *Instrument*: the tool incorporates the main constructs of the Academic Resilience Scale (ARS-30) developed by Cassidy (2016). But authors considered only 22 items out of 30 items (ARS-30), due to its unsuitability in the context of present research. But, all those items covered three dimensions mentioned in ARS-30, i.e. (1) Perseverance, (2) Reflecting and adaptive help-seeking, and (3) Negative affect and emotional response.

All the items were placed in both languages, English and Bengali simultaneously in the tool used here. Perseverance aspects of the tool comprised with nine items, whereas reflecting and adaptive help-seeking comprised with six items, and seven items covered the Negative affect and emotional response aspects. Each item has five alternative options to indicate the perception towards academic resilience i.e. strongly agree, agree, neutral, disagree, and strongly disagree.

For favorable items, the score ranged from 5, 4, 3, 2, and 1, and for unfavorable items, it was the opposite. *Reliability*: The scale's internal consistency was determined and it was found to be highly reliable, with Cronbach α of .805 for the 22 items. Present researchers also mention the effect size (Cohen et al., 2019, p746) for all the results in the analysis section.

Table 1. *Demographic characteristics of the sample (N = 503)*

Categorical Variables	Groups	N (503)	% Per cent
Gender	Female	252	50.1
	Male	251	49.9
Residential Setup	Rural	305	60.6
	Urban	198	39.4
Family Income (Rupees/Annum)	< 1.5 lakhs	370	73.6
	1.5 - 4 lakhs	89	17.7
	> 4 lakhs	44	8.7

Table 2. *Descriptive Statistics of ACADEMIC RESILIENCE*

		Statistic	Std Error
ACADEMIC RESILIENCE	Mean	92.288	0.332
	Median	92.000	
	Std. Deviation	7.458	
	Skewness	-.011	0.109
	Kurtosis	-0.443	0.217

Tables 2 & 3 show that, the total (N= 503) mean score in the student credit card scheme is 92.288, the median is 92, SD is 7.458, the skewness is -0.011 and Kurtosis is -0.443. The graphical representation of data (Fig 1: Histogram with normal probability curve and Fig 2: Q-Q Plot) is also given.

Figure 1. *Histogram with normal probability curve*

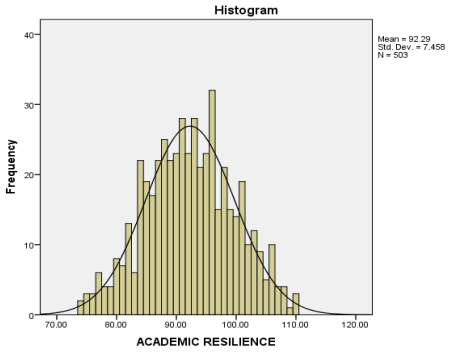
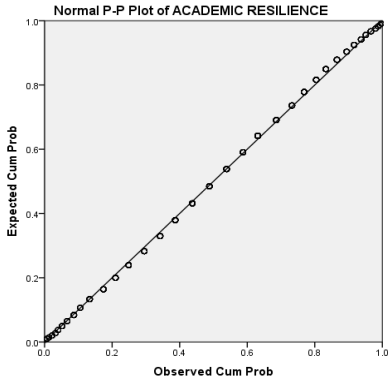


Figure 2*. Normal Q-Q Plot*



The histogram (Fig 1) shows the curve is normally distributed for the score in overall academic resilience of prospective teachers. Q-Q Plot (Fig 2) also confirmed that the scores generally lie on a straight line with no deviations which entails data are distributed normally.

3. Finding

Objective 1: To compare the overall academic resilience and its dimensions with respect to the gender of prospective teachers.

Table 3*. t-test regarding Academic Resilience and different dimensions of Prospective teacher based on their Gender*

Hypotheses	Categorical Variables	Groups (GENDER)	N (503)	MEAN	SD	Levene's Test for Equality of Variances		t-test for Equal or Unequal of Means		
						F	Sig.	t-value	df	Sig.
$H_0$1	Overall Academic resilience	Female	252	91.72	7.26	.577	.448	1.701	501	.088
		Male	251	92.86	7.66					
$H_0$2	Perseverance dimension	Female	252	39.96	3.31	.115	.735	.729	501	.466
		Male	251	40.18	3.43					
$H_0$3	Reflecting and adaptive help-seeking dimension	Female	252	26.27	2.37	.009	.923	1.595	501	.111
		Male	251	26.62	2.41					
$H_0$4	Negative affect and emotional response dimension	Female	252	25.48	4.03	3.899	.049	1.493	492.12	.136
		Male	251	26.06	4.60					

*Significant at the 0.05 level

In the case of comparing the mean score of females (M=91.72 & SD=7.26) and males (M=92.862 & SD=7.66), an independent sample t-test was conducted to test the null hypothesis ($H_0$1: there is no significant difference between female & male prospective teachers in the matter of overall academic resilience). Results showed that Levene's test for

equality of variance F is .577 and corresponding p is .448 (p > .05), thus equal variance can be assumed for this purpose and the calculated 't' $_{(501)}$ is 1.701 and p is 0.088 (p>.05). Therefore, 't' is not significant at .05 level. So, $H_0$1 is accepted and it can be said that no significant difference between Male and Female Prospective teachers' overall academic resilience. A weak effect size (d = 0.16) was found also.

In case of comparing the mean score of females (M=39.96 & SD=3.31) and males (M=40.18 & SD=3.43), an independent sample t-test was conducted to test the null hypothesis ($H_0$2: There is no significant difference between Male and Female Prospective teacher in regards to Perseverance dimension). Results disclosed that Levene's test for equality of variance F is .115 and corresponding p is .735 (p > .05), thus equal variance can be assumed for this purpose and the calculated 't' $_{(501)}$ is 0.729 and p is 0.466 (p>.05). Therefore, 't' is not significant at .05 level. So, $H_0$2 is not rejected and it can be said that no significant difference between Male and Female Prospective teachers in regard to Perseverance of Academic resilience. A weak effect size (d = 0.065) was found.

In the case of comparing the mean score of females (M=26.27 & SD=2.37) and males (M=26.62 & SD=2.41), an independent sample t-test conducted to test the null hypothesis ($H_0$3: There is no significant difference between Male and Female Prospective teacher in regards to Reflecting and adaptive help-seeking dimension). Results revealed that Levene's test for equality of variance F is .009 and corresponding p is .923 (p > .05), thus equal variance can be assumed and the calculated 't' $_{(501)}$ is 1.595 and p is .111 (p>.05). Therefore, 't' is not significant at .05 level. So, $H_0$3 is not rejected and it can be said that insignificant difference between Male and Female Prospective teachers concerning reflecting and adaptive help-seeking dimensions. Moderate effect size (d = 0.690) was found.

In the case of comparing the mean score of females (M=25.48 & SD=4.03) and males (M=26.06 & SD=4.60), independent sample t-test was conducted to test the null hypothesis ($H_0$4: There is no significant difference between Male and Female Prospective teacher in regards to Perseverance dimension). Results show that Levene's test for equality of variance F is 3.899 and corresponding p is 0.49 (p < .05), thus unequal variance can be assumed for this purpose, and the calculated 't' $_{(492.12)}$ is 1.493 and p is .136 (p>.05). Therefore, 't' is not significant at .05 level. So, $H_0$4 is not rejected and it can be said that no significant differences exist between female and male prospective teachers about negative affect and emotional response. A weak effect size (d = 0.134) was found here.

Objective 2: To compare the overall academic resilience and its dimensions regarding their residential setup.

Table 4. *t-test on Academic Resilience and groups in Residential Setup of Prospective teacher*

Hypotheses	Categorical Variables	Groups (Residential Setup)	N (503)	MEAN	SD	Levene's Test for Equality of Variances		t-test for Equal or Unequal of Means		
						F	Sig.	t-value	df	Sig.
$H_0$5	Overall Academic resilience	Rural	305	91.77	7.18	1.472	.226	1.962*	501	0.050
		Urban	198	93.10	7.83					
$H_0$6	Perseverance dimension	Rural	305	39.98	3.26	1.121	0.290	0.744	501	0.457
		Urban	198	40.21	3.53					
$H_0$7	Reflecting and adaptive help-seeking dimension	Rural	305	26.39	2.31	3.885	0.049	0.703	396.0	0.483
		Urban	198	26.54	2.51					
$H_0$8	Negative affect and emotional response dimension	Rural	305	25.39	4.26	0.212	0.645	2.417*	501	0.016
		Urban	198	26.34	4.38					

*Significant at the 0.05 level

In the case of comparing the mean score of rural (M=25.48 & SD=4.03) and urban (M=91.77 & SD=7.18), an independent sample t-test was conducted to test the null hypothesis ($H_0$5: There is no significant difference between rural and urban Prospective teacher in regards to Overall Academic resilience). Results reveal that Levene's test for equality of variance F is 1.472 and corresponding p is 0.226 (p > .05), thus equal variance can be assumed and the calculated 't' $_{(501)}$ is 1.962 and p is 0.050 (p=.05). Therefore, 't' is significant at .05 level. So, $H_0$5 is rejected and it can be said that overall Academic resilience differed in terms of their residential setup. A weak effect size (d = 0.177) was also found here.

In the case of comparing the mean score of rural (M=39.98 & SD=3.26) and urban (M=40.21 & SD=3.53), an independent sample t-test was conducted to test the null hypothesis ($H_0$6: There is no significant difference between Rural and Urban of Prospective teacher in respect of Perseverance dimension). Results revealed that Levene's test for equality of variance F is 1.121 and corresponding p is .290 (p > .05), thus equal variance can be assumed for this purpose and the calculated 't' $_{(501)}$ is .744 and p is .457 (p>.05). Therefore, 't' is not significant at .05 level. So, $H_0$6 is not rejected and it can be said that no significant difference between Rural and Urban Prospective teachers in regard to the Perseverance dimension of Academic resilience. Weak effect size (d = 0.07) was found (Cohen et al., 2019).

In the case of comparing the mean score of rural (M=26.39 & SD=2.31) and urban (M=26.54 & SD=2.51), an independent sample t-test was conducted to test the null hypothesis ($H_0$7: There is no significant difference between Rural and Urban Prospective teacher with respect to Reflecting and adaptive help-seeking dimension). The result shows that Levene's test for equality of variance F is 3.885 and corresponding p is .049 (p < .05), thus unequal variance can be assumed and the calculated 't' $_{(396.00)}$ is 0.703 and p is .483 (p>.05). Therefore, 't' is not significant at .05 level. So, $H_0$7 is accepted and it can be said that the reflecting and adaptive help-seeking dimension of academic resilience does not differ from the residential setup of prospective teachers in West Bengal. Here, the study also found a weak effect size (d = 0.062).

In the case of comparing the mean score of rural (M=25.39 & SD=4.26) and urban (M=26.34 & SD=4.38), an independent sample t-test was conducted to test the null hypothesis ($H_0$8: There is no significant difference between rural and urban of prospective teacher in the matter of negative affect and emotional response dimension.). Results show that Levene's test for equality of variance F is .212 and corresponding p is .645 (p > .05), thus equal variance can be assumed for this purpose and the calculated 't' $_{(501)}$ is 2.417 and p is .016 (p < .05). Therefore, 't' is significant at .05 level. So, $H_0$8 is rejected and it can be said that significant difference between rural and urban prospective teachers with respect to negative affect and emotional response dimensions of academic resilience. A moderate effect size (d = 0.219) has been found.

Objective 3: To analyze the overall academic resilience and its dimensions in terms of the annual family income of prospective teachers.

Table 5*. ANOVA_regarding to Academic Resilience and different dimensions of Prospective teachers based on their Annual Family Income*

Hypotheses	Categorical Variables	Annual Family Income	N (503)	MEAN	SD	One-way ANOVA		Eta Squared η^2	Observed Power[b]
						F	Sig.		
$H_0$9	Overall Academic resilience	Below 1.5 lakh	370	92.25	7.37	5.840	.003*	.023	.872
		1.5 lakhs to 4 lakhs	89	90.86	7.16				
		Above 4 lakhs	44	95.50	8.10				
		Below 1.5 lakh	370	40.16	3.29	3.491	.031*	.014	.642

$H_0$10	Perseverance dimension	1.5 lakhs to 4 lakhs	89	39.34	3.58				
		Above 4 lakhs	44	40.87	3.32				
$H_0$11	Reflecting and adaptive help-seeking dimension	Below 1.5 lakh	370	26.45	2.39	3.091	.046*	.010	.503
		1.5 lakhs to 4 lakhs	89	26.09	2.38				
		Above 4 lakhs	44	27.18	2.38				
$H_0$12	Negative affect and emotional response dimension	Below 1.5 lakh	370	25.65	4.31	3.800	.023*	.012	.571
		1.5 lakhs to 4 lakhs	89	25.42	4.13				
		Above 4 lakhs	44	27.46	4.56				

*The mean difference is significant at the 0.05 level

In the case of comparing the mean score family income of the students, the calculated F is 3.491 and p is .003 ($p < 0.05$). Therefore, $H_0$9 is rejected. So, it can be said that there is a significant difference in the level of family income of prospective teachers with respect to their academic resilience. From the LSD post hoc analysis, it is found that prospective teachers having family income above 4 lakh rupees significantly differed from the group having family income below 1.5 lakh (p=.006) and also significantly differed from the group having family income between 1.5 lakh to 4 lakh rupees (p=.001). The calculated eta squared indicates a small effect size (η^2 =0.023). The power is .872, so there is an 87 per cent chance of getting significant differences among the different income groups on their overall academic resilience.

From Table 5, hypothesis $H_0$10 is shown, In the case of comparing the family income of the students, the calculated F is 5.840 and p is .031 ($p < 0.05$). Therefore, $H_0$9 is rejected. So, it can be said that there is a significant difference among annual family income (below 1.5 lakh/ 1.5 lakh to 4 lakh/ more than 4 lakh) of Prospective teachers in regards to the Perseverance dimension of Academic resilience. For additional Fisher's LSD post hoc analysis, the study found that there was a significant difference between below 1.5 lakh and 1.5 to 4 lakhs (p<.036), on the other side prospective teacher with 1.5 to 4 lakh annual family income is adverse from the above 4 lakh (p<.014). The calculation of eta squared indicates a small effect size (η^2 =0.014). The power level is .642, so, the null hypothesis has a 64 percent chance of being significant.

From Table **5**, hypothesis $H_0$11 manifests, In the case of comparing the family income of the students, the calculated F is 3.091 and p is .046 ($p < 0.05$). Therefore, $H_0$11 is rejected. So, it can be said that there is a significant difference among annual family income (below 1.5 lakh/ 1.5 lakhs to 4 lakh/ more than 4 lakhs) of Prospective teachers in regards to the Reflecting and adaptive help-seeking dimension of Academic resilience. In addition, in Fisher's LSD post hoc analysis, the study found that there was only a significant difference between 1.5 to 4 lakh and more than 4 lakhs, (p<.013). A small effect size (η^2 =.010) has been found from the eta squared. The power lever is .503, so there is a 50 per cent chance of the null hypothesis being significant.

From Table 5, hypothesis $H_0$12 appeared, In the case of comparing the family income of the students, the calculated F is 3.800 and p is .023 ($p < 0.05$). Hence, F is not retained. Therefore, $H_0$11 is rejected. So, it can be said that there is a significant difference among annual family income (below 1.5 lakh / 1.5 lakhs to 4 lakhs / more than 4 lakhs) of Prospective teachers in regards to Negative affect and emotional response dimension of Academic resilience. Furthermore, in Fisher's LSD post hoc analysis, the study found that there was a significant difference between below 1.5 lakhs and more than 4 lakhs (p<.009). Besides, the prospective teachers between 1.5 to 4 lakh annual family income is varied from the above 4 lakh (p<.011).

Eta squared shows, there is a small effect size (η^2 =.012). The power lever is .571, so the null hypothesis has a 57 per cent chance of being significant.

4. Discussions

The concept of resilience is changeable and it has several facets (Oswald et al., 2003). The relationship between an individual's internal resources and the external surroundings in which they live and grow (or do not flourish) defines the nature of resilience. As a result, resilience manifests differently in each individual and changes over time based on the scenarios they encounter and their ability to effectively handle them. Provide workshops and classes emphasizing stress reduction, self-control, and flexible coping mechanisms (Gu & Day, 2007).

Incorporation of resilience is helpful to increase reflection exercises and mindfulness techniques, which also promote self-care and emotional awareness (Jennings & Greenberg, 2009). To improve problem-solving and emotional support, we must organize frequent peer collaboration through study groups or professional learning communities (Johnson & Johnson, 1989). By the resilience growth-oriented feedback approach prioritizing effort and progress above fixed attributes (Dweck, 2006).

Benard, 1995 argued that Resilient capacity may be innate in all of us. Through this, we can build our social competence, problem-solving abilities, critical perception, autonomy, and a sense of purpose. In 1979, Bronfenbrenner's model suggested that the microsystem (i.e., family, school) and mesosystem (i.e., interactions with parents and teachers) directly influence outcomes by the resilience. However, the types of environments we operate in, the people we work with, and the intensity of our views or goals can all influence or limit our ability to be resilient in various adverse situations, whether they are related to personal or professional reasons (Benard, 1991; Day et al., 2006; Gu & Day 2007; Henderson & Milstein, 2003; Luthar, 1996; Oswald, Johnson, & Howard, 2003).

Holling's (1973) theory of resilience, which is frequently utilized in socio-ecological systems, focuses on how adaptability and diversity enhance system resilience. Research on multi-stakeholder community initiatives or different learning environments may show how this kind of variety fosters stress-adaptive reactions.

On the other side Masten's (2001) research on "ordinary magic" in resilience highlights the importance of easily accessible protective elements such as problem-solving abilities and supportive relationships. From the study findings are in line with these concepts if they demonstrate the value of inclusive learning methods or mentoring. Mentors encourage emotional control and flexible coping mechanisms by offering mentees a secure environment to discuss difficulties. Resilience theories that emphasise relationship resources are consistent with this (Masten, 2001). Building resilience requires the development of problem-solving, self-efficacy, and goal-setting abilities, all of which are facilitated by effective mentoring (Schunk & DiBenedetto, 2020). For resilience from a societal viewpoint, according to Putnam (2000), peer networks offer social capital, which consists of shared resources, emotional support, and a feeling of community. According to Werner and Smith (1992), psychological resilience can be raised and the consequences of stress can be mitigated by feeling connected to peers.

According to social identity theory, group membership enhances resilience by promoting a positive self-image and providing access to resources at the group level (Haslam et al., 2018). Students who have positive relationships with their teachers feel safer and more trusted, which helps them deal with obstacles more skilfully (Hamre & Pianta, 2006). By establishing an atmosphere where students feel appreciated and respected, a classroom that prioritises inclusion, emotional safety, and open communication helps students to develop resilience (Jennings & Greenberg, 2009).

The present study intended to understand how pre-service teachers faced adverse situations and managed by inner resilience to handle their problems successfully.

Gender as a Factor of Academic Resilience: The present study found that overall academic resilience is not influenced by the gender (male and female) of prospective teachers. This result is similar to the earlier studies conducted by Girija & Mani (2017), Sürücü and Özcan (2009). On the other hand, Özbey et al. (2013) found the opposite result, where gender has a role in determining the academic resilience of prospective teachers at Gazi University, Dicle University and Cumhuriyet University, Turkey.

According to Özbey (2012), resilience can be predicted by the gender of preschool teachers. Specifically, with respect to the perseverance dimension, Girija & Mani (2017) also found the same result where it reflected that gender does not influence the academic resilience of prospective teachers. In the case of reflecting and adaptive help-seeking dimension, the present study shows a similar nature of academic resilience between male and female prospective teachers, which is an anomaly with the study conducted by Oei et al. (2017), where they found that male students are associated with school performance and also may impact their academic resilience. If we look on the negative affect and emotional response dimension as a matter of fact, the study reveals that academic resilience is same in both genders of prospective teachers. This finding is not supported by the earlier studies conducted by Waugh et al. (2011) and Mallick & Kaure (2020), where they stated that gender has a significant contribution to the development of academic resilience of prospective teachers in West Bengal.

Residential Setup and Academic Resilience: The study found that the residential setup of the prospective teachers in West Bengal influences academic resilience. Additionally, prospective teachers in urban setups are higher than prospective teachers in rural setup in terms of their academic resilience. This result is supported by the earlier study conducted by Tayyaba (2012) in Pakistan, where they agreed that the residential setup of school students influences academic resilience. In the case of both dimensions i.e. perseverance and reflecting and adaptive help-seeking the urban prospective teachers are higher than the rural prospective teachers. But, the study also found that both these dimensions of academic resilience are not influenced significantly by their residential setup. Hartley (2011) found individual resilience traits play a significant role in determining students' ability to persist in their academic pursuits. Furthermore, based on individual circumstances, Hartley (2013) highlighted the varying influence of resilience on academic persistence, noting that intrapersonal resilience was more significant and functioned differently for students with the highest levels of psychological distress.

In the study reflecting and adaptive help-seeking dimensions explored the academic resilience are averagely same in urban and rural areas prospective teachers. Shi et al. (2021) emphasize the importance of understanding the trends and prospects of transformative climate adaptation. This insight can be translated to the academic resilience of rural and urban students, as it highlights the need to identify the evolving patterns of help-seeking behavior and the potential factors that drive these patterns in different settings.

The present study shows prospective teachers are influenced by the negative affect and emotional response dimension in urban and rural setups. This result is not supported by the earlier study conducted by Mallick & Kaur (2020) in India, where they mentioned urban students are higher than rural students in the same dimension of academic resilience.

***Annual Family Income and Academic Resilience*:** Academic resilience is particularly crucial for students in vulnerable environments, contributing to their success (Jin et al., 2022). The present study focused on the annual family income of prospective teachers as a matter of their academic resilience. The overall academic resilience is influenced by all income groups of the family (< 1.5 lakhs, 1.5 to 4 lakhs, and > 4 lakhs rupees). Academic resilience is higher

in high family income group of prospective teachers than the others income groups. On the other hand, lowest resilience is found in the middle-income group than the other two groups. Findings of present study supported the earlier study conducted by Morrissey et al. (2014), where they indicated a potential lack of academic resilience in the face of financial hardship among the school children at the elementary level. Similarly, Roksa et al. (2011) explored family support as a protective factor against the detrimental effects of low income on academic resilience. Perseverance dimension of academic resilience is influenced by the family income of prospective teachers. These findings supported by the study conducted by Rojas (2015) where positive relationship between family income and academic resilience in middle school students is mentioned. Williams and Bryan (2013), indicated that family income could significantly influence the perseverance dimension of academic resilience among African American youth. Result shows that, family income is a determinant factor in case of development of reflecting and adaptive help-seeking dimension. This result confirmed by Ryan and Shim (2012) where help-seeking behavior is an important aspect of academic resilience and seeking appropriate economic support can contribute to positive educational outcomes. The negative affect and emotional response dimension of the prospective teachers have a crucial impact in respect of their family income. Shanahan et al. (2020) highlighted the importance of understanding emotional distress as a contributing factor to resilience, suggesting a need for further investigation into the specific mechanisms through which emotional distress influences academic resilience. Provide teacher candidates with financial aid, including loans or scholarships, to ease their financial burden (Roffey, 2012). To prevent early-career teachers from being overburdened, support rules that provide reasonable expectations and moderate workloads during practicum placements (Kitching et al., 2009). To proactively address stress and burnout, teacher training programs should support wellness coordinators or mental health counsellors (Fernet et al., 2012).

5. Conclusion

The present study provides noteworthy insights into the factors influencing academic resilience among prospective teachers. Academic resilience encompasses dimensions like perseverance, reflective and adaptive help-seeking, and emotional response to challenges. The study found no significant difference between male and female prospective teachers in overall academic resilience along with all its dimensions except Negative affect and emotional response dimension. This implies that both genders are in an equitable position in terms of academic resilience. If the situation arises to stand-in academic resilience of the prospective teachers, equitable importance is to be given across the genders to ensure equitable educational outcomes, perseverance, reflective and adaptive help-seeking, and emotional responses to academic challenges with a weak effect size.

The study reveals that residential setup prospective teachers significantly impact overall academic resilience and also the dimension of negative affect and emotional response. This difference may occur due to better access to the resources and support for educational opportunities in urban areas. This finding allows us to think about the need to give importance to supporting the prospective teachers of rural areas with necessary and targeted interventions. The study also shows that perseverance, reflecting and adaptive help-seeking, negative affect and emotional response and overall academic resilience are significantly unequal across the level of family income. It depicts an insight that teachers with low socio-economic backgrounds (having low family income) have faced such ability by struggling and facing several challenges in daily life that help them to possess equitable resilience with teachers of higher socio-economic backgrounds.

Key findings include personal attributes such as perseverance, adaptive help-seeking, and emotional response. The study emphasizes the importance of cultivating these attributes and

support systems to help individuals overcome academic challenges. It also explores prospective teachers' experiences, examining academic stress, failure of loose, and feeling helpless to get jobs. By understanding critical situations, the research offers insights into obstacles faced by prospective teachers in building academic resilience. Furthermore, the article highlights the significance of interventions and support systems in promoting resilience.

For future research, the study acquires a deeper understanding of the lived experiences of resilience and combines quantitative surveys with qualitative techniques like focus groups or interviews. According to Ungar (2003), qualitative data can convey the intricacy of resilience mechanisms and offer context. Investigate how resilience evolves and changes over time by doing longitudinal studies. This would make it possible for researchers to pinpoint elements that support resilience during pivotal times, including changes in one's profession or significant life events (Masten & Wright, 2010). Examine resilience in contexts such as cultural, occupational, or ecological environments to learn more about how contextual factors affect resilience. It emphasizes the role of mentorship programs, counselling services, and academic support initiatives. The research advocates for creating a resilient academic environment for prospective teachers at the secondary level.

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