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# ACADEMIC RESILIENCE AMONG UNDERGRADUATE MEDICAL AND DENTAL STUDENTS- A COMPARATIVE STUDY

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## ABBREVIATIONS

- **APA** American Psychological association
- **AR** Academic Resilience
- **OT** Occupational therapy
- **PT** Physical therapy
- **SHS** Subjective Happiness scale
- **SWLS** Satisfaction with life scale
- **QOL** Quality of life
- **BDI** Beck Depression Inventory
- **MS** Microsoft
- **SPSS** Statistical Package for the Social Sciences
- **COVID-19** Coronavirus disease 2019
- **ARS** Academic Resilience Scale.
- **KAHER** KLE Academy of Higher Education and Research

## ABSTRACT

Academic resilience is an opportunity of succeeding in education even in the case of hardships. This concept is used to assess pupils' capacity to achieve academic success in the face of adversity. Resilience among students was found to be favourably correlated with their general well-being. Students with greater resilience reported greater enjoyment and a higher quality of life. This assessment can be used to identify students who are at risk of falling behind in their studies and to give interventions aimed at enhancing their performance.

The present research study was undertaken with the aim of studying Academic Resilience among 128 undergraduate medical and dental students from Belagavi city, Karnataka. Academic Resilience scale by Simon Cassidy was used. Percentage method, Chi-square test and Test of significance were applied. Results of the study revealed that Medical students had above average level of Academic Resilience than Dental students. There was no statistically significant difference in Academic Resilience between Medical and Dental students. There was a significant association of Gender with Academic Resilience among Medical students.

**Key Words:** Academic Resilience, Undergraduate, Dental, Medical, Perseverance, Composure.

## CONTENTS

- i. **CERTIFICATE**
- ii. **DECLARATION**
- iii. **LIST OF TABLES AND GRAPHS**
- iv. **ABBREVIATIONS**
- v. **ABSTRACT**

<b>CHAPTER</b>	<b>TITLE</b>	<b>PAGE No.</b>
<b>I</b>	<b>INTRODUCTION</b>	<b>01-09</b>
<b>II</b>	<b>REVIEW OF LITERATURE</b>	<b>10-24</b>
	Need of the study Variables Objectives	
<b>III</b>	<b>METHODOLOGY</b>	<b>25-28</b>
	Research design Sample design Sample technique The measure used Procedure Data process Scoring Analysis of data Ethical issues	
<b>IV</b>	<b>RESULT AND DISCUSSION</b>	<b>29-42</b>
<b>V</b>	<b>SUMMARY AND CONCLUSION</b>	<b>43</b>
<b>VI</b>	<b>SUGGESTIONS SOCIAL IMPLICATIONS LIMITATIONS</b>	<b>44</b>
	<b>BIBLOGRAPHY</b>	<b>45-54</b>
	<b>ANNEXURES</b>	<b>55-64</b>

## LIST OF TABLES

<b>TABLE No.</b>	<b>TITLE</b>	<b>PAGE No</b>
<b>1.</b>	Showing scoring pattern for academic resilience scale	<b>28</b>
<b>2.</b>	Showing levels of Academic resilience in Medical and Dental students.	<b>29</b>
<b>3.</b>	Showing the comparison of Medical & Dental students with Academic Resilience scores.	<b>32</b>
<b>4.</b>	Showing association between demographic profile with level of academic resilience	<b>34</b>
<b>5.</b>	Association between demographic factors and levels of academic resilience in medical students.	<b>37</b>
<b>6.</b>	Association with demographic factors and level of Academic resilience in Dental student.	<b>40</b>

## LIST OF GRAPHS

<b>GRAPH No.</b>	<b>TITLE</b>	<b>PAGE No</b>
<b>1.</b>	Showing levels of Academic Resilience in Medical and Dental Students.	31
<b>2.</b>	Showing the comparison of Medical & Dental students with Academic Resilience scores.	33
<b>3.</b>	Showing association between demographic profile with level of academic resilience	36
<b>4.</b>	Association between demographic factors and levels of academic resilience in medical students.	39
<b>5.</b>	Association with demographic factors and level of Academic resilience in Dental student.	42

## INTRODUCTION

The psychological trait known as resilience enables people to overcome difficulties in life and rise to the occasion, if not transcend it. Highly resilient people discover a means to adjust directions, go through emotional healing and persist in going for their objectives instead of allowing obstacles, unpleasant experiences or failure lower their determination. **Cherry K (2009)**

People with resilience have the mental fortitude to handle stress and adversity. It is the mental reservoir of power that individuals can access into get people through difficult times without breaking. According to psychologists, experts, counsellors, people who are resilient are better able to overcome hardship and start over in life following a battle. To be resilient is to be strong and flexible in the face of hardship, to be able to fend off setbacks and to recover swiftly. **Catherine Moore (2019)**

Resilience as defined by **Richardson et al. (1990)** it is “the process of managing upsetting, demanding or difficult life situations in a way that provides more coping mechanisms and protection measures before the disturbance that comes from the occasion”.

Resilience has been defined by the **American Psychological Association (2012)** it is "the process of adjusting well in the face of adversity, trauma, tragedy, threats or severe causes of stress" or "the ability to bounce back from tough situations" Psychological resilience is a term for this broad category of resilience.

As the term "resilience" is frequently used to refer to general adaptability and coping, it has been divided into several categories and types:

- **Type 1 resilience:** This can also be referred to as **Natural Resilience**, is the resilience that naturally occurs in individual from birth. This is the basis of life force. People possessing inherent resilience are excited about life's adventures and content to play, learn and explore. They may continue and do the most even after being knocked down and diverted if they possess natural resilience.
- **Type 2 Resilience:** It is also referred as **Adaptive Resilience** developed through difficult situations, this is what happens when difficult circumstances compel one to grow and adapt. One can develop resilience and become stronger as a result of learning to roll with the punches of life.
- **Type 3 Resilience:** Acquisition of resilience-building skills is referred to as **Restoring Resilience** or restored resilience. By doing this, one can have a healthy approach to cope with trauma of the past, present and future. **Ogilvie D. (2021)**

Resilience has different core components:

### **1.Reframing:**

Reframing is the process of altering one's perception of a circumstance or occurrence frequently by adopting an optimistic or helpful viewpoint. It entails viewing a problem from an alternative perspective, which can lessen tension and anxiety. It enables people to tackle obstacles with a more positive mentality that makes it a great tool for increasing resilience.

### **2. Experience of Positive Emotions:**

Emotions that are considered positive include pleasure, happiness, contentment and satisfaction. These feelings are linked to increased resilience and may support people in managing difficulties and experiencing stress. Happiness can help people develop psychological resources that can protect them from the negative effects of stress.

### **3. Participation In Physical Activity:**

Regular physical activity has a variety of health advantages including better mental health and well-being. Physical activity can help relieve stress, anxiety and sadness while also increasing self-esteem and confidence. Physical activity can help people create a sense of control and mastery over their bodies and lives making it crucial component of resilience building.

### **4.Trusted Social Support:**

Social support is the emotional, informational and functional aid that people receive from others. Friends, family members and other social networks can all provide trustworthy support for one another. It is connected to greater resilience because it gives people a sense of relationship and belonging. It can also help people cope with stress and adversity by offering comfort and reassurance.

### **5.The Use of Personal and Authentic Strengths:**

Personal and authentic strengths are people's unique talents, abilities and resources. Using these strengths can help people develop resilience by providing a feeling of purpose and meaning. Using personal and real qualities additionally allows people feel more confident and capable, therefore can help them avoid negative consequences of stress.

### **6.Optimism:**

Optimism is the faith that positive events will occur in the future. Optimism is related with better resilience because it allows people to face challenges that get with a more optimistic attitude. Optimism can also help people deal with stress and misfortune by providing a sense of hope and possibilities. **Kate Hefferon & Ilona Hefferon (2011)**

Academic resilience can be defined as “a dynamic process that demonstrates an individual's ability to overcome obstacles and constructively adapt to demanding academic circumstances”. Although resilience is frequently linked to personal qualities and attributes like communication, confidence, problem solving, emotional regulation, connection, control, coping, flexibility, optimism but it is also impacted by outside variables like institutional policies, social support and educational opportunities. Fundamentally, adaptive methods, personal qualities and environmental resources interact to help people overcome challenges and succeed in educational environments.

According to **Waxman et al. (2003)** and **Cassidy (2015)** academically resilient students are those who achieve academic success in the face of adversity. More precisely, these are the students who sustain high levels of achievement, motivation and performance despite the presence of stressful events and conditions that place them at risk of doing poorly in school and ultimately dropping out of school. **Alva (1991), Martin & Marsh (2009)**

Academic resilience among dental and medical students has been demonstrated to improve both academic achievement and general well-being. Professional courses in the fields of medicine and dentistry have grown more and more reputedly, emphasizing that instructors possess the appropriate education and qualifications. Research indicates a significant positive correlation ( $r=0.774$ ) between academic resilience and academic achievement among dentistry students. This shows that promoting academic resilience among dentistry students may improve their academic success.

Resilience is the ability to rebound from stress and hardship and it plays an important role in academic performance. They discovered that dentistry students had a moderate level of resilience showing that they are not naturally prone to burnout, but they showed lower

levels of emotional exhaustion and personal performance, indicating a need for interventions in these areas. **Salman et al. (2018)**

Other researchers suggested that resilience was positively correlated with life satisfaction and happiness among medical and dental students in private colleges in Saudi Arabia. Student's life satisfaction (42%) and their happiness (22%) were significantly correlated with resilience. **Aboalshamat K. T. et al. (2018)**

Promoting academic resilience among students is critical to their academic achievement and well-being. Creating a resilient learning environment for them can be achieved through interventions such as support programmes, curriculum updates, faculty development and a comprehensive student support strategy in health professional education.

In order to adapt and flourish in the face of academic difficulties, pressures and adversities medical and dental students need to possess academic resilience. Greater resilience among medical students is associated with enhanced pleasure, life satisfaction and quality of life as well as less symptoms of anxiety and an overall rise in subjective well-being. **Qinghua Wang, Wei Sun et al. (2022)**

Students studying dentistry who exhibit greater resilience also report higher levels of happiness, life satisfaction and overall quality of life. However, dentistry students exhibit lower levels of personal performance and emotional tiredness, suggesting treatments to improve their resilience and lower their risk of burnout are necessary.

Studies have indicated a positive correlation between the resilience of medical students and their overall well-being that encompasses improved life satisfaction, happiness, enhanced quality of life, reduced symptoms of anxiety and heightened subjective well-

being. But during their academics, medical students frequently deal with a lot of pressures and difficulties, which can result in burnout and inadequate coping mechanisms. Similar to this, there are substantial academic demands and difficulties with clinical training for dental students, which may have an effect on their resilience. **Yung Kai Lin et al. (2019), Live Skow Hofgaard (2021)**

Resilience among dentistry students was found to be favourably correlated with their general well-being. Students who exhibited greater resilience also reported greater enjoyment and a higher quality of life. On the other hand, a significant percentage of dentistry students exhibit decreased levels of emotional fatigue and personal performance, demonstrating that interventions to improve resilience and lower the risk of burnout are necessary.

Students with low academic resilience might increase their resilience by using different coping mechanisms. Normalising stress among medical students, assisting them in anticipating stressful situations, sharing faculty experiences and offering planned exercises to alter students' viewpoints are a few examples of these tactics. Teaching social support and coping skills can also be helpful.

Many people view resilience as a strength, asset or virtue that has the potential to improve one's performance, accomplishments, health and general well-being. Increased quality of life, wellbeing and ability to cope in difficult situations are linked to resilience. **Cassidy (2015 & 2016), Martin & Marsh (2006 & 2009)**

According to research, resilience has a beneficial impact on a person's happiness, optimism, confidence, self-improvement, positive self-image, problem-solving abilities and the growth of character traits like motivation and perseverance. **Cahill et al. (2014)**

Moreover, investigations into the relationship between grit and resilience among dental interns have revealed that these qualities are associated with academic success. Grit defined by perseverance and consistency of interest, has been shown to impact students' ability to cope with challenges and achieve better academic outcomes. The study emphasizes the importance of cultivating grit and resilience among students to enhance their self-awareness and academic performance.

The research on academic resilience among medical and dental students highlights the critical role of resilience in promoting well-being, reducing burnout and enhancing academic success. By understanding the factors influencing resilience levels and implementing targeted interventions, educational institutions can better support the mental health and academic achievement of students in these demanding fields.

### **Essential Components of the Academic Resilience are -**

#### **1.Persverance –**

A person's ability to follow a goal or passion over time and not give up in the face of difficulties or disappointments is referred as the trait of perseverance. It is described as "finishing what one starts persevering in a course of action despite obstacles 'getting it out the door, taking pleasure in completing tasks". **Anna Schaffner et al. (2020)**

#### **2. Negative affect and emotional response –**

The emotional state that one experiences internally when they don't feel satisfied with the way things are going, when they can't seem to avoid a threat or when they've failed to accomplish a goal is referred Negative affect. **APA (2018)**

Emotional reactions, also referred to as temperament features in circumstances where they remain constant throughout time. **Sih, Bell et al. (2004) Réale et al. (2007)** It incorporates two opposing forces: the necessity to seek and investigate new resource prospects and the necessity to stay away from needless risks **Greenberg (2003)**

### **3.Refelcting and adaptive help seeking –**

Psychological principles such as reflective practice and adaptive help-seeking are crucial for self-regulated learning and coping mechanisms. Critical insight and ongoing experience-based learning are key components of reflective practice, which aims to enhance performance and promote adaptive expertise. However, adaptive help-seeking is a behaviour that improves people's lives by identifying difficulties and obtaining the minimal amount of assistance necessary to increase understanding and capacities, so halting the progression of problems. **Newman, R. S et al. (1994)**

## **FACTORS**

Factors affecting academic resilience in students can be categorized into -

*i. Individual:* These can be strong emotions of optimism, empathy and self-efficacy. For example, academically resilient students are more likely to have high levels of self-efficacy or have confidence in their capacity to succeed academically. Personal qualities that support academic resilience include goal-setting, perseverance and a positive outlook on learning. **Luisa Fernanda (2015), Fallon (2010)**

According to a study, age positively influences academic resilience, meaning that older students are more resilient than younger ones. **Cui (2022)**

The results of a study on the differences between genders in academic resilience and achievement showed that more women than men had higher academic achievement. **Cecilia (2017)**

*ii. Environmental:* Experiences from the family and community, availability of social resources, and positive interactions with classmates and teachers are such examples that promote academic resilience. For instance, children who engage in extracurricular activities, have understanding parents and encouraging teachers are more likely to have resilient academic careers. AR can also be promoted in education system with high good parent-child interactions, and high educational standards. **Luisa Fernanda (2015)**

Some findings also suggested that pupils academic resilience and engagement may be impacted by the social support and resources in their surroundings, including where they live. **Luciano Romano(2021)**

Academic resilience plays a crucial role among students, which affect their life. It is very important to understand nature of AR, the factors affecting it and techniques and methodology strategies to improve it.

## REVIEW OF LITERATURE

**KT Aboalshamat, AO Alsiyud et al. (2018)** conducted the research on “The Relationship between Resilience, Happiness, and Life Satisfaction in Dental and Medical Students in Jeddah, Saudi Arabia”( n=607).The findings of the study revealed that there was a significant correlation between resilience and life satisfaction ( $P < 0.001$ ) and between resilience and happiness ( $P < 0.001$ ). There were 66.3% who had resilience below average and 24.7% had below average satisfaction with life. Females, dentistry students and students from wealthy families exhibited higher levels of resilience than did members of the other subgroups. Students with high resilience were happier and more satisfied with their lives. Establishing programs to help students improve their resilience was recommended.

**Meng shi, Li Liu et al. (2015)** carried out a research on “The mediating role of resilience in the relationship between big five personality and anxiety among Chinese medical students: A Cross-Sectional Study” (n =2,925) in China. The finding showed high prevalence of anxiety symptoms among participants (47.3%). After modifying for demographic factors- agreeableness, conscientiousness and openness were all negatively linked with anxiety symptoms whereas neuroticism was positively associated with anxiety symptoms. The associations between openness, conscientiousness, agreeableness and anxiety symptoms were mediated by resilience.

**Usman Abubakar, Nur Ain Azli et al. (2021)** investigated “The relationship between academic resilience and academic performance among pharmacy students” (n=247) in Malaysia. The findings of the study showed female students demonstrated a higher median total academic resilience score (60 [IQR: 41 – 80]) than males (56 [37 – 69]), with  $p = 0.001$ . Females had significantly higher academic resilience score than males. Academic resilience score was higher among 1st year students (62 [42 – 74]) compared to 2nd year (57.5 [37 – 80]), 3rd year (59 [37 – 78]) and 4th year (58 [44 – 77]) students. There was a positive relationship between academic

resilience score and students cumulative grade point average( $r=0.250$ ). Undergraduate pharmacy students had moderate academic resilience. Academic achievement has been found to be highly correlated with academic resilience, which differs depending on gender and year of study.

**Ila M. Saunders, Amy M Pick et al. (2022)** carried out the study on “Grit, Subjective Happiness, Satisfaction with Life and Academic Resilience Among Pharmacy and Physical Therapy Students at Two Universities” ( $n=227$ ) in United states of America. The finding of the study revealed that response rate for pharmacy students was 44% and 43% for occupational therapy/physical therapy (OT/PT) students with most pharmacy and OT/PT students in the 19–25-year range. Grit scores did not differ between pharmacy students and OT/PT students, while subjective happiness scale (SHS) scores were significantly higher in OT/PT students.

**Patricia Tempski, Itamar S Santos et al. (2015)** investigated “Relationship among Medical Student Resilience, Educational Environment and Quality of life” in 1,350 medical students from 22 Brazilian medical school in Brazil. According to the findings, 491 (36.4%) students were enrolled in their third and fourth years of medical school, 400 (29.6%) were in their first and second years, and 459 (34.0%) of the participants, 714 (52.9%) were women. Their ages ranged between 17 and 40 ( $22.8 \pm 1.3$  years old) there were no significant differences in sex ( $p = 0.60$ ) and year of the medical program ( $p = 0.46$ ) across resilience levels groups among the medical students. Students with very high resilience had lower the Beck Depression Inventory (BDI), state anxiety and trait anxiety scores when compared to all other resilience level groups ( $p<0.001$ ).

**Ali Asgar Hayat, Hydar Choupani et al. (2021)** carried out a study on “The mediating role of students’ academic resilience in the relationship between self-efficacy and test anxiety” in 243 medical students in Iran. The finding revealed the Pearson's correlation results demonstrated a significantly positive association between self-efficacy and academic resilience ( $r = 0.437$ ,  $P \leq$

0.01). The results also showed that self-efficacy was significantly and negatively associated with test anxiety ( $r = -0.475, P \leq 0.01$ ). Furthermore, a significantly negative association was found to exist between academic resilience and test anxiety ( $r = -0.391, P \leq 0.01$ ). This study showed that academic resilience could play a mediating role in students' self-efficacy and test anxiety relationship.

**Ardi Findyartini, Nadia Greviana et al. (2021)** studied “The relationships between resilience and student personal factors in an undergraduate medical program” ( $n = 1,040$ ) from Indonesia. The results revealed that students' academic achievement explained 46.9% of students' resilience scores. It indicated that coping mechanisms, personality traits (according to the Big Five Personality Test) and academic performance might predict resilience. The adaptive coping mechanism seemed to be highly important for cultivating resilience among medical students.

**Maryam Akbarilakeh, T Eftekhazadeh et al. (2017)** conducted a study on “Relationship between resilience and academic success in dental students of Shahid Beheshti University of medical sciences” ( $n=185$ ) in Iran. The Findings of the study revealed that the relationship between resilience score with basic science score as a criterion for academic success showed a positive and direct correlation. The median score for resilience was 62.27. Resilience ratings ranged from 21 to 91, the lowest and greatest values. About 82.7% got a basic science score of  $> 120$  (successful) and 12% got a basic science score of  $< 120$  (not successful). While certain personality traits are highly associated with academic achievement, the current dental curriculum emphasises professional competence as a vital component of academic success. As a result, educational curricula must be adjusted and improved to encourage the development of personality qualities that impact behaviour both personally and professionally.

**Tala Maragha, Leeann Donnelly et al. (2023)** conducted a study on “Students' resilience and mental health in the dental curriculum” (n= 289) in Vancouver, Canada. The results of the research showed that there are two primary curriculum elements related to mental health and well-being: a didactic stress management session and an interactive resilience workshop. 68.2% of respondents to the survey completed it. Students who did not receive any mental health content (1st year from 2020/21batch) had higher resilience scores ( $p = .043$ ) when compared to students who received both components 1st year from students (2019/20) and 2nd year students from (2018/19). The results of this study also showed that ethnic origins and major life events such as the pandemic and influenced resilience.

**Golui, Poulomi, Saptarshi Roy et al. (2022)** explored the study on “Resilience and its correlates among medical students in the Eastern part of India during the coronavirus disease 2019 (COVID-19) pandemic”(n=1,000). The findings of the study reveal that one-fourth (25.2%) of the participants had low-level resilience, nearly half (44.9%) of them perceived their mental health status as having worsened during the lockdown. Students who preferred to be outside during the period of lock down and who spent <10 hours of their time with their family members had more likely to have low resilience.

**Uzoma Ononye, Mercy Ogbeta et al.(2022)** carried out study on “Academic resilience, Emotional intelligence and Academic Performance Among Undergraduate Students” (n=400) from Nigeria. Findings of the study revealed that Emotional intelligence mediated the positive relationship between Academic Resilience and Academic Performance ( $\beta = 0.057$ ,  $p = 0.005$ ). Academic Resilience was positively related to Emotional Intelligence ( $\beta = 0.125$ ,  $p = 0.007$ ), Academic Performance ( $\beta = 0.231$ ,  $p = 0.000$ ) and Emotional Intelligence ( $\beta = 0.260$ ,  $p = 0.000$ ). Academic Achievement was predicted by Academic Resilience, but Academic Performance was also favorably and significantly impacted by Emotional Intelligence.

**Mwangi, C. N.Okatcha et al. (2015)** explored “Relationship between Academic Resilience and Academic Achievement among Secondary School Students in Kiambu County, Kenya”(n=390) .The results revealed a positive and significant relationship between Academic Resilience and Academic Achievement. It is evident from this study that Academically Resilient students are more successful in school and are more likely to thrive academically. It revealed a positive and significant relationship between academic resilience and academic achievement ( $r(388) = 0.68, p < 0.05$ )

**Mihir K. Mallick & Simranjit Kaur et al. (2016)** conducted the research on “Academic Resilience among Senior Secondary School Students: Influence of Learning Environment”(n=600) in Punjab, India. The finding of the study revealed that boys possessed more scores in Academic Resilience as compared with those of girls. Students from urban localities possessed a high level of Academic Resilience, girl students have a higher learning environment as compared to boys. Locality-wise, urban students scored significantly high in the learning environment as compared with rural students. Academic resilience and learning environment were shown to have a correlation coefficient ( $r$ ) of 0.74, which is significant at both the 0.01 and 0.05 levels of significance. Significant positive relation was found between the learning environment and academic resilience of senior secondary students.

**Owen Ze Hua Choo, Kususanto Prihad et al. (2019)** carried out research on “Academic resilience as mediator of multidimensional perfectionism and academic performance among gen-Z undergraduate students”(n=132) in Malaysia. The Findings revealed significance level of this study is reported as  $p < .001$ , indicating a high level of statistical significance. Their study year varied from 1 to 5 with a mean of 2.44, and the participant’s age ranged from 18 to 25 with a mean of 21.33. The association between multidimensional perfectionism and academic achievement was largely mediated by Academic resilience. Academic resilience and

performance were positively predicted by perfectionistic strivings, but academic performance was negatively predicted by perfectionistic anxieties.

**Ima Fitri Sholichah and Muhimmatul Hasanah et al.(2021)** investigated study on “Covid-19 Pandemic: Academic Resilience and Academic Stress among College Students in Gresik, Indonesia (n=124). The results showed that students from several Gresik universities, aged 17 to 29 years comprised 28.2% males and 71.8% females. According to the study, academic resilience explained 8.5% of the variation in the overall (SD = 1.73) levels of academic stress. Academic resilience has a significant role in predicting academic stress among students. Furthermore, the level of academic resilience and academic stress of the participants are at the medium level.

**Fayiza Jan, Dr. Amina Praveen et al.(2023)** conducted a study on “Academic Resilience and Adolescent students" among 476 higher secondary students from Kashmir, India. The finding revealed that 210 (44.11%) students had the extremely high level of Academic Resilience, 257 (53.99%) students had average/moderate level and 09(1.89%) students had extremely low level of Academic Resilience. Results also revealed that females outperformed males in showing academic resilience.

**Nida Muhlisa, Nur Aeni et al.(2021)** carried out the study on “The Correlation Between Coping strategy and Academic Resilience in medical faculty students”(n=70) In Indonesia. The finding of the study revealed the obtained correlation values  $r = 0.615$  and  $p = 0.000$  ( $p < 0.01$ ) indicated that there was a positive and significant correlation between coping strategies and academic resilience. Coping strategies provided an effective contribution of 37.8% to academic resilience. However, there were 62.2% of other factors such as strong social skills, interpersonal skills and social support that affect academic resilience.

**Yulia Fitriani ,Fathana Gina et al.(2022)** investigated the study on “Academic Resilience in Post Pandemic Covid-19 Among College Students” (n=100) in Jakarta. The findings explored the regression analysis, the value of  $p = 0.005$  or  $p < 0.05$  and the value of  $F = 5,631$ . That is, self-concept and family support together could predict academic resilience. The results of the analysis can be seen as the value of the coefficient of determination or effective contribution of self-concept variables and family support simultaneously or together could predict the resilience of 10.4%, while the rest is influenced by other factors.

**Bayar Mirza Aziz, Khalid Ismail Mustafa et al. (2021)** explored “Academic Resilience and Relationship with Meaning of Life Among Koya University Students” in Iraq.(n=740). The findings of this study had a 2.5% variance in the meaning of life, which can be explained by the predictive measure of academic resilience . The study demonstrated a substantial positive association between academic resilience and the meaning of life among students, with a Spearman correlation coefficient of  $r = 0.212$  and a p-value of 0.001. The findings indicated that students had a high sense of meaning in life and a low level of academic resilience.

**A P J Wulandari and Istiani et al. (2020)** carried out research on “The effect of self-esteem and self-efficacy on the academic resilience of undergraduate students in Jakarta” (n=455) The results revealed that there were 234 males respondents (51.3%) and 221 females respondents (48.5%) as the highest and lowest numbers of respondents, respectively. The results demonstrated that while other factors controlled 52.4% of the variance in academic resilience, self-efficacy and self-esteem simultaneously influenced 47.6% of it. Up to 39.8%, self-efficacy had the largest impact. There was a 28.5% impact of self-esteem on academic resilience. Self-efficacy interventions were suggested as a means of enhancing students' academic resilience in future studies.

**Jong Im Jin, Nam cho kim et al. (2017)** investigated “Grit, Academic Resilience and Psychological Well-being in Nursing Students” in South Korea (n=271). The results of the study revealed that Academic resilience was rated with mean scores that were above average. The psychological well-being and grit mean scores showed a suitable range. There was a strong correlation found between nursing students' psychological well-being and both the academic resilience ( $r = .65, p < .001$ ) and grit ( $r = .52, p < .001$ ). Academic resilience ( $\beta = .47, p < .001$ ), grit ( $\beta = .26, p < .001$ ) and major satisfaction ( $\beta = .20, p < .001$ ) were found to be significant predictors of psychological well-being among nursing students. These factors accounted for 53.1% of the variance in psychological well-being.

**Sheila Mae Carol A. Buslig et al. (2019)** researched “The Academic Resilience of College Students in Kalinga”(n=100) in the Philippines and found that the respondents' overall weighted mean score for academic resilience was 3.64, with a descriptive value of "much resilient". It stated that there was no meaningful connection between the academic performance of the respondents and their academic resilience. This suggests that academic performance was unaffected by academic resilience.

**Mohammad Amin Astereki, Mahshid Izadi et al.(2018)** conducted a study on “The effectiveness of academic counselling based on a narrative approach on academic resilience and academic emotions of students with academic failure”(n=30) High school students in Tehran, Iran. The findings using covariance analysis showed that academic counselling training based on a narrative approach was effective on academic resilience ( $P=0.001$  and  $F=19.98$ ) and academic excitement ( $P=0.001$  and  $F=34.001$ ).

**Madeeha Malik, Umme Salma et al.(2022)** explored “Academic Resilience of Healthcare Professional Students in Pakistan: Need of the Hour”(N=382). The research findings indicated that the mean resilience scores of several healthcare professional students were as follow: medicine students (70.22,  $\pm$ 13.73), pharmacy students (66.61,  $\pm$ 15.48) and nursing students (65.86,  $\pm$ 15.76). It was found that students from various healthcare professions exhibited a moderate level of academic resilience. The most resilient students were found to be those studying medicine then pharmacy and nursing.

**Debdeep Dasgupta, Sunanda Sinhababu et al.(2023)** explored “Assessing Resilience among Medical Teachers: A Necessary Step in Building More Equipped Medical Teaching: A Cross-sectional Study”(n=60)medical educators in Bankura, West Bengal. The results revealed that Overall, 83.3% of participants had low resilience scores with only 16.7% rated resilient. Only 15% of the individuals shown high levels of determination, 51.7% scored poor.50% of subjects struggled with problem-solving whereas 28.4% excelled at it; 30% of the participants had high levels of self-confidence, while 5% performed poorly. A significant number of participants scored poorly in vision, interaction, relationship and organizational abilities with less than 15% obtaining high marks. The results of the study emphasize the significance of addressing multiple factors influencing resilience among medical educators in order to better prepare future doctors.

**Carlos Smith et al. (2020)** researched on “An analysis of resilience in dental students using the Resilience Scale for Adults”(n=155) dental students in Virginia. The findings of the result revealed that Dental students showed comparatively high levels of resiliency. Females demonstrated greater resilience than males (P = 0.0395), race (P = 0.0025), general health (P = 0.0101), and mental health (P < 0.0001). Exploratory Factor Analysis (EFA) results indicated a 5-factor solution that accounted for 82.6% of the diversity in resilience among dentistry students.

**Cecilia Mwangi, Anthony MuriithiIrereri et al.(2019)** carried study on “RELATIONSHIP AMONG TYPE OF SCHOOL, ACADEMIC RESILIENCE AND ACADEMIC ACHIEVEMENT AMONG SECONDARY SCHOOL STUDENTS IN KIAMBU COUNTY,KENYA”(n=390).The findings of the result revealed that Mean academic achievement scores varied considerably among degrees of academic resilience ( $F, 2, 387 = 196.07, p < 0.05$ ).A bivariate correlational study had significant positive relationship between academic resilience and academic achievement in girls' boarding schools ( $r = 0.78, p < 0.05$ ), followed by boys' day schools ( $r = 0.66, p < 0.05$ ) and mixed day schools ( $r = 0.65, p < 0.05$ ).The study emphasizes the role of academic resilience in predicting academic progress in secondary school students. Higher levels of academic resilience were connected with improved academic achievement, indicating the need of developing resilience abilities in students.

**Cecilia Mwangi, Anthony MuriithiIrereri et al.(2017)** investigated study on “Gender Differences in Academic Resilience and Academic Achievement among Secondary School Students in Kiambu County, Kenya”(n=90).The findings in the study revealed that The p-value of 0.05 indicates there exist statistically significant gender differences in academic resilience among secondary school students in Kiambu County. It also indicates that the differences in resilience levels between boys and girls are unlikely to have occurred by chance independently, providing credibility to the conclusion that girls in the study group had greater academic resilience than boys.

**Padmashri Rao, A.R. Krishnamurthy et al.(2018)** studied “Impact of Academic Resilience on the Scholastic Performance of High School Students”(n=125) in India. The findings of the results revealed that t-statistic for the study was 1.25, indicating a moderate level of significance. The two-tail p-value of 0.21 indicates no significant difference between the groups.

In contrast, the one-way ANOVA resulted in a F value of 4.64 and a p-value of 0.01, showing a significant difference between the groups. The study implies that resilience has a significant impact on academic performance among adolescents from low socioeconomic settings, emphasizing the need for specialized interventions to improve academic success in this demographic.

**Dr. Noora Abdul Kader, Mr. Mohd Abad et al.(2020)** studied "A Study of Relationship between Academic Resilience and Protective Factors among Senior Secondary Students"(n=200) in India. The findings revealed that this study's remarkable contribution is the discovery of a positive association between senior secondary school students' protective factors and academic resilience. The findings show a significant positive relationship (correlation coefficient of 0.99) between protective factors and academic resilience, indicating that students who use protective factors more frequently have stronger AR in Students' capacity to overcome obstacles and succeed academically in spite of setbacks can be enhanced by recognising and fostering these protective element.

## NEED OF THE STUDY

Academic resilience is the ability to effectively deal with setback, stress or pressure in the academic setting. Students who are academically resilient are better equipped to handle difficult situations, cope with pressure and manage stress in the classroom, such students resilient in the classroom can deal with disappointment, learn from mistakes, adapt to change and be self-motivated.

The goal of developing academic resilience and motivational intensity as positive psychology constructs is to increase learners' ability to compete with one another even under adverse conditions.

According to the literature, some socio-affective factors (e.g., peer relationships, parents' high expectations, teachers' attention and kindness etc.), socio-economic factors (e.g., parents' financial contribution to education, economic and social class level, etc.) and affective factors (e.g., anxiety, self-efficacy, motivation and so on) can influence learners' academic achievement and policymakers' decision to provide an appropriate context for learning.

Academic resilience will assist the student in overcoming failures. It is a beneficial characteristic in college students as well as students at different levels of education.

It is a psychological factor that can be used as a tool in the field of education. Students are always afraid of academic failure, academic resilience can help them deal with these situations. Parents, teachers, society and the community all play important roles in the development of this skill.

The importance of studying academic resilience among dentistry and medical students is critical due to the enormous pressures and challenges they endure during their education. Research has demonstrated that resilience is critical in boosting academic success and overall well-being among these students. The results of research indicate that students

with high resilience are happier and more content with their life, emphasizing the need of implementing programmes to improve students' resilience. **Aboalshamat KT et al.(2018)**

Considering the investigation's drawbacks, such as a convenience sample and self-reported questionnaire utilization, it revealed the positive influence of resilience on students' well-being. This emphasizes the need for future research to take into account for any confounding factors and design focused treatments to effectively support students.

Furthermore, research on resilience in dentistry students has demonstrated variability across demographic variables, indicating the necessity for understanding how resilience vary amongst student groups. Such studies highlight the need of assessing resilience levels and adapting interventions to suit unique needs based on demographics. Furthermore, investigating the association between resilience and academic performance among dentistry students is important, as resilience has been established as a strong predictor of academic success in this discipline. **Simon, Arun K et al.(2023)**

According to research, resilience plays an essential role for medical and dental students' academic achievement as well as hindering the negative effects of burnout and anxiety. As an instance, a longitudinal study indicated the correlations between academic burnout, resilience and life happiness in medical students, reinforcing the need of determining these relationships for the purpose to effectively help students. **Qinghua Wang et al.(2022)**

Addressing this association can help lead the development of methods to improve academic resilience and performance among dentistry students. The association between academic burnout, resilience and life satisfaction among medical students highlights the relationship between them and impact on student well-being.

Longitudinal research have found a negative correlation between academic burnout and life satisfaction, emphasizing the significance of managing burnout to improve students' overall satisfaction. Furthermore, the mediation impact of resilience between

academic burnout and life satisfaction highlights the significance of resilience as a protective factor against negative emotions and its contribution to greater life satisfaction levels among medical students.

General well-being evaluations were substantially associated with resilience, implying that perceived resilience in dentistry students may protect against undesirable health outcomes. This study may educate both internal and external support systems for dentistry students, as well as institutional programming development to better assist their educational experiences.

The advantageous influence resiliency has on students' well-being and academic performance emphasizes the need for additional research into academic resilience among dentistry and medical students. Understanding the relationship between resilience, academic burnout and life satisfaction allows educational institutions to implement targeted strategies to successfully assist students and establish a learning environment that fosters resilience and student achievement.

Parents and teachers should encourage children / students to maintain a healthy balance between their academic work and their personal and social lives. More research and specialized interventions are required to address the specific needs of dental and medical students, thereby improving their academic resilience and overall well-being.

## **VARIABLES:**

### **Independent Variables**

1. Age
2. Gender
3. Area of residence

### **Dependent Variable:**

1. Academic resilience

## **OBJECTIVES**

- 1) To assess the level of Academic Resilience in Medical & Dental students.
- 2) To find out difference in Academic Resilience between Medical & Dental students.
- 3) To study association of socio-demo graphic profile with Academic Resilience.

## **RESEARCH QUESTIONS**

1. Is academic resilience high in medical and dental students?
2. Is there a difference in level of Academic Resilience between Medical and Dental students at significance level?
3. Is there any association between demographic profile and Academic Resilience among Medical and Dental students.

## METHODOLOGY

### 3.1 RESEARCH DESIGN:

Comparative study

### 3.2 SAMPLE DESIGN:

Probability sampling

#### 3.2.1 Sampling Technique:

Systematic Random sampling

#### 3.2.2 Sample size :

The sample size for the present study was calculated scientifically based on “A Comparative Study of Academic Resilience, Academic Self-Efficacy and Social Skills in Students with Divorced and Normal Parents”

Sample was calculated using formula-

$$n = \frac{2S^2 (Z_\alpha + Z_\beta)^2}{D^2}$$

**D<sup>2</sup>**

where,

n=Number of undergraduate medical and dental students

S=Combined Std deviation between two groups

Z<sub>α</sub>=Z-value for α level (2.58 at 1% α error)

Z<sub>β</sub>=Z-value for β level (1.682 at 95% β error)

d=Mean difference between 1<sup>st</sup> and 2<sup>nd</sup> group

$$\text{Hence, estimated sample size} = \frac{2(11.52)^2(2.58+1.682)}{(8.92)^2}$$

n= **64** per group

### **3.2.3 Inclusion Criteria:**

Medical and Dental Undergraduate students from the colleges of Belagavi city.

### **3.2.4 Exclusion Criteria:**

Medical and Dental Postgraduate students and other Health science students

## **3.3 METHOD OF DATA COLLECTION AND THE MEASURE USED :**

Questionnaire Method: The Academic Resilience Scale (ARS-30) developed by Simon Cassidy is used.

### **3.3.1 Description of the scale:**

The scale comprises 30 items measuring three dimensions -

- Perseverance –14 items
- Negative affect and emotional response- 7 items.
- Reflecting and Adaptive help-seeking- 9 items.

### **3.3.2 Reliability:**

It was calculated by Cronbach's alpha coefficient and found to be 0.90, the scale demonstrates strong internal consistent reliability, meaning that the items consistently measure the same construct. Additionally, factor-level reliability study shows alphas in the range of 0.78 to 0.83 are acceptable.

### **3.3.3 Validity:**

The scale item's content validity was proven by the fact that they were chosen using established definitions, theoretical frameworks and traits that are typically associated with

resilience. A significant positive correlation of 0.49 was found between academic self-efficacy and ARS-30 scores, indicating contemporary validity. Significant mean differences and a substantial effect size ( $d = 0.98$ ) were observed in ARS-30 answers to multiple rounds of an academic adversity vignette, suggesting discriminant validity.

### **3.3.4 Use of scale**

- It is designed to measure student's ability to bounce back from academic setbacks and challenges. This scale assesses various factors such as self-efficacy, motivation and coping strategies, to understand an individual's resilience in the academic context.
- The Academic Resilience Scale can be utilized in educational research, school settings and counselling contexts.
- Researchers and educators can use it to identify students who may be at threat of poor performance in school / college and to create interventions that promote resilience and well-being.

### **3.4 PROCEDURE:**

After seeking ethical clearance approval from Ethics Committee for Human Subjects' Research, J.N. Medical College, KLE Academy of Higher Education Research, (KAHER) Belagavi, Karnataka and from the concerned authorities from the medical and dental colleges in Belagavi City, present study was conducted. The participants were selected through a systematic random sampling method by referring the student register; with the prior notice the participants were gathered in the hall of respective institutions, after briefing about the study, written Informed Consent was obtained from the participants. Questionnaire forms were distributed and instructions were given clearly and doubts of participants (if any) were attended and cleared by the investigator. Approximately 20-25 minutes of time was given to fill in the questionnaires, once the forms were filled by the participants, they were collected back and were used for scoring and statistical analysis.

### 3.5 DATA PROCESS:

The collected data was examined thoroughly, scored, coded, entered into MS Excel Sheet and then relevant statistical measures were applied by using SPSS.

### 3.6 SCORING:

Each item is scored on a 5-point Likert scale. The sum of all the 30 items is ranging 30-150 score

Table 1: Showing scoring pattern for academic resilience scale

Items	Extremely unlikely	Unlikely	Neutral	Likely	Extremely likely
Positive	1	2	3	4	5
Negative	5	4	3	2	1

### 3.7 ANALYSIS OF RESULTS: Descriptive Study

#### 3.7.1 Statistical Techniques:

1. Percentage method is used to measure the level of academic resilience in medical and dental Students.
2. Test of significance is used to find out difference in academic resilience between medical and dental students.
3. Chi square test is used to find out association of socio demographic profile with academic resilience.

### 3.8 ETHICAL ISSUES:

The present study was carried out only after obtaining ethical clearance from institutional ethics committee of J.N. Medical College, KAHER, Belagavi. A brief idea of the study was given to the participants, confidentiality was assured and only after obtaining their Informed Consent and clearing their doubts the questionnaire was administered. Participation in this research was kept voluntary.

## RESULTS AND DISCUSSION

Resilience is described as "the dynamic and negotiated process for the resources and supports to adapt and define themselves as healthy amid adversity, threat, trauma and/or everyday stress within individuals and between individuals and their environments". **Truebridge (2016)**

The importance of academic resilience in conquering challenges and succeeding in both education and life. It talks about the way educational institutions at different levels can help pupil develop academic resilience by emphasising the value of abilities including time and stress management, self-efficacy, setting short term and long-term goals and social competency. **Melvin D. (2021)**

Results related to the objective 1 are presented in table no.2 and discussed as follows.

**Table No 2: Showing levels of Academic resilience in Medical and Dental students.**

Levels of academic resilience	Medical students	%	Dental students	%	Total	%	Chi-square	p-value
<b>Below average</b>	0	0.00	0	0.00	0	0.00	0.8910	0.6410
<b>Average</b>	9	14.06	13	20.31	22	17.19		
<b>Above average</b>	51	79.69	47	73.44	98	76.56		
<b>High</b>	4	6.25	4	6.25	8	6.25		
<b>Total</b>	64	100.0	64	100.0	128	100.00		

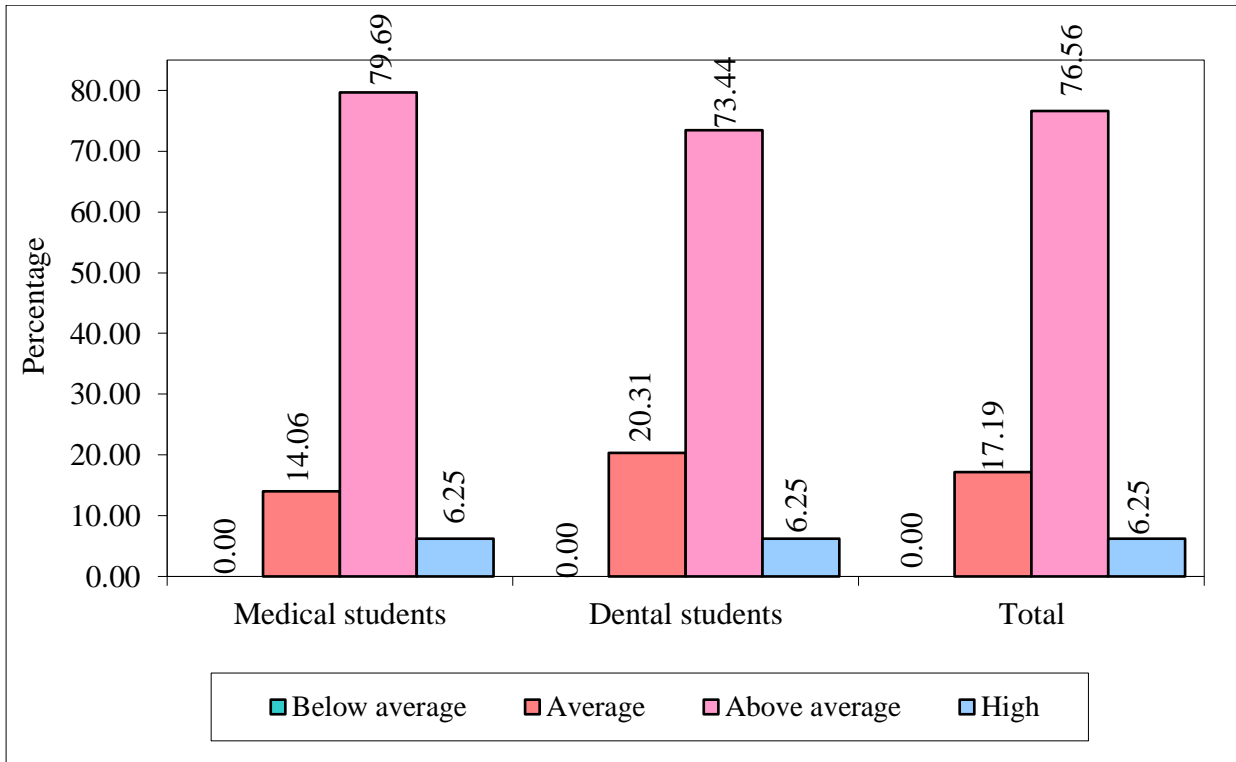
**\*p<0.05**

As per the table no.2, among the medical students 79.69 % had above average level of Academic resilience.14.06% had average level of AR and 6.25% had high level of AR whereas, 73.44% of the Dental students had above average of AR followed by 20.3% with average level and 6.25% high level of academic resilience respectively. None of the participants from both the group had below average level AR.

Evaluation and comparison of results of both the groups show that equal some of participant have high level of AR whereas, percentage of medical students having above average level is quite higher than dental students. Computed p-value (Chi-square 0.8910; p-value- 0.6410) show that though there is difference between two groups on each level of Academic resilience but not at significant level.

Results are quite in similar lines to the previous research studies, which showed that AR was moderately high among medical student compared to Nursing and Pharmacy students. **Umme Salma et al. (2022)**. Thus, AR is found quite higher in Medical students than Dental students. There results are presented in Graph 1.

**Graph 1. Showing levels of Academic Resilience in Medical and Dental Students.**



Results pertaining to the objective 2 as per the table no.3 is presented and discussed below.

**Table No. 3: Showing the comparison of Medical & Dental students with Academic Resilience scores.**

Parameters	Medical students		Dental students		Mean Diff.	95% CI for mean diff.		t-value	p-value
	Mean	SD	Mean	SD		Lower	Upper		
<b>Academic resilience</b>	112.84	10.56	109.31	13.95	3.53	-0.80	7.86	1.6146	0.1089

**\*p<0.05**

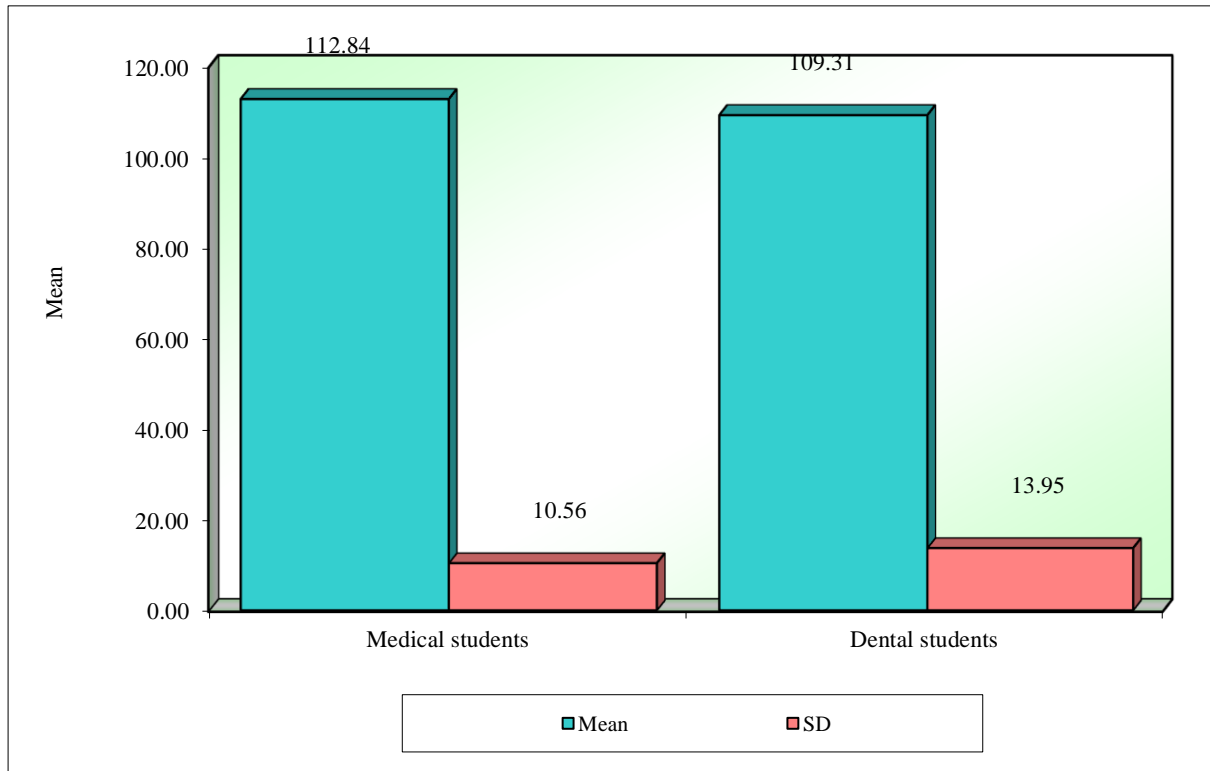
With reference to above table, the mean scores of medical and dental students on AR are 112.84 and 109.31 respectively with mean scores of Academic Resilience is found quite higher in Medical Students than Dental Students. The computed t-value is 1.61 and p-value is 0.1089 > 0.05.

Comparison of mean scores and t-value shows that though there is a difference in AR between Medical and Dental students but not at significant level as the calculated p-value is 0.1089.

Results of this objective are quite similar to previous research findings that showed medical students demonstrated higher Academic Resilience and lower suicidal ideation compared to non-medical students. **Abbas A., et al.(2024)**

Thus, there is a difference in AR in the two groups but not significantly. The findings are presented in Graph 2.

**Graph 2: Showing the Comparison of Medical and Dental students with Academic Resilience scores.**



Results of third objective are presented in the below table and discussed.

**Table No 4: Showing association between demographic profile with level of academic resilience.**

Profile	Below average	%	Average	%	Above average	%	High	%	Total	Chi-square	p-value
<b>Age</b>											
20 yrs	0	0.0	2	15.4	11	84.6	0	0.0	13	2.5920	0.6280
21 yrs	0	0.0	12	14.6	64	78.0	6	7.3	82		
22 yrs	0	0.0	8	24.2	23	69.7	2	6.1	33		
<b>Gender</b>											
Male	0	0.0	12	26.1	32	69.6	2	4.3	46	4.1840	0.1230
Female	0	0.0	10	12.2	66	80.5	6	7.3	82		
<b>Area of residence</b>											
Rural	0	0.0	1	14.3	5	71.4	1	14.3	7	0.8270	0.6610
Urban	0	0.0	21	17.4	93	76.9	7	5.8	121		
Total	0	0.0	22	17.2	98	76.6	8	6.3	128		

**\*p<0.05**

The 7.3% of participants from the Age group of 21 years show high level of Academic resilience whereas 84.6% of participants from 20 years age group showed above average of AR, 24.2% of student from 22 years age have Average AR and none of them have below average Academic Resilience. The calculated p-value (0.6280) showed though there is an association between the age of level of AR but not at significant level.

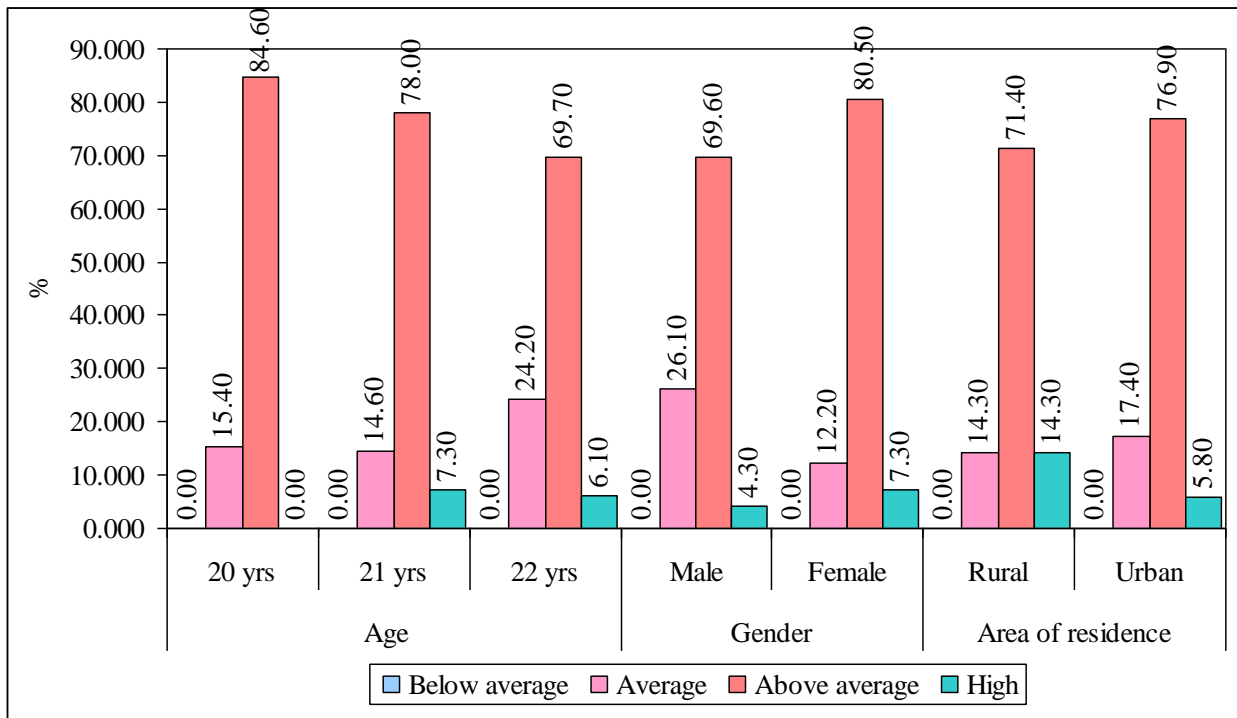
Results related to the gender. 7.3 % of females and 4.3% had high AR, 80.5% of females 69.6% of males had above average of Academic Resilience. Average AR is found in 26.1% of males and 12.2% in females. The calculated p- value is 0.1230 showing though there is an association of gender with level of AR but not significantly.

Some of the previous research findings are also suggesting that Gender also account for difference in students' Academic Resilience. Girls were found to have higher academic resilience. This could be indication that girls are more inclined to resilient respondent than then males. **Mwangi et al. (2017)**

Related to the area of residence high AR is found in 14.8% of rural participants and 5.8% in those from Urban; Above average level of AR is found in 76.9% of student from urban and 71.4% from rural area followed by 17.4% participants from. Urban area and 14.3% from rural area showed average level AR. The computed chi square 0.827 and p-value of 0.6610 indicating no significant association is found between area of residence and levels Academic resilience.

Overall results show that though there is an association between all the three demographic factors & Academic resilience but not at significant level. Thus, the results of this are presented in Graph 3

**Graph 3: Showing Association between demographic profile with levels of Academic Resilience.**



Additionally, statistical analysis was done to find out association of demographic factors with AR in both the group separately, which are presented in table 5 and table 6 respectively.

**Table 5: Association between demographic factors and levels of academic resilience in medical students.**

Profile	Below average	%	Average	%	Above average	%	High	%	Total	Chi-square	p-value
<b>Age</b>											
20 yrs	0	0.0	0	0.0	2	100.0	0	0.0	2	2.4740	0.6490
21 yrs	0	0.0	6	14.0	33	76.7	4	9.3	43		
22 yrs	0	0.0	3	15.8	16	84.2	0	0.0	19		
<b>Gender</b>											
Male	0	0.0	9	29.0	21	67.7	1	3.2	31	11.537	0.0030*
Female	0	0.0	0	0.0	30	90.9	3	9.1	33		
<b>Area of residence</b>											
Rural	0	0.0	0	0.0	5	83.3	1	16.7	6	2.0920	0.3510
Urban	0	0.0	9	15.5	46	79.3	3	5.2	58		
Total	0	0.0	9	14.1	51	79.7	4	6.3	64		

\*p<0.05

As per the results presented in table 5 is discussed below

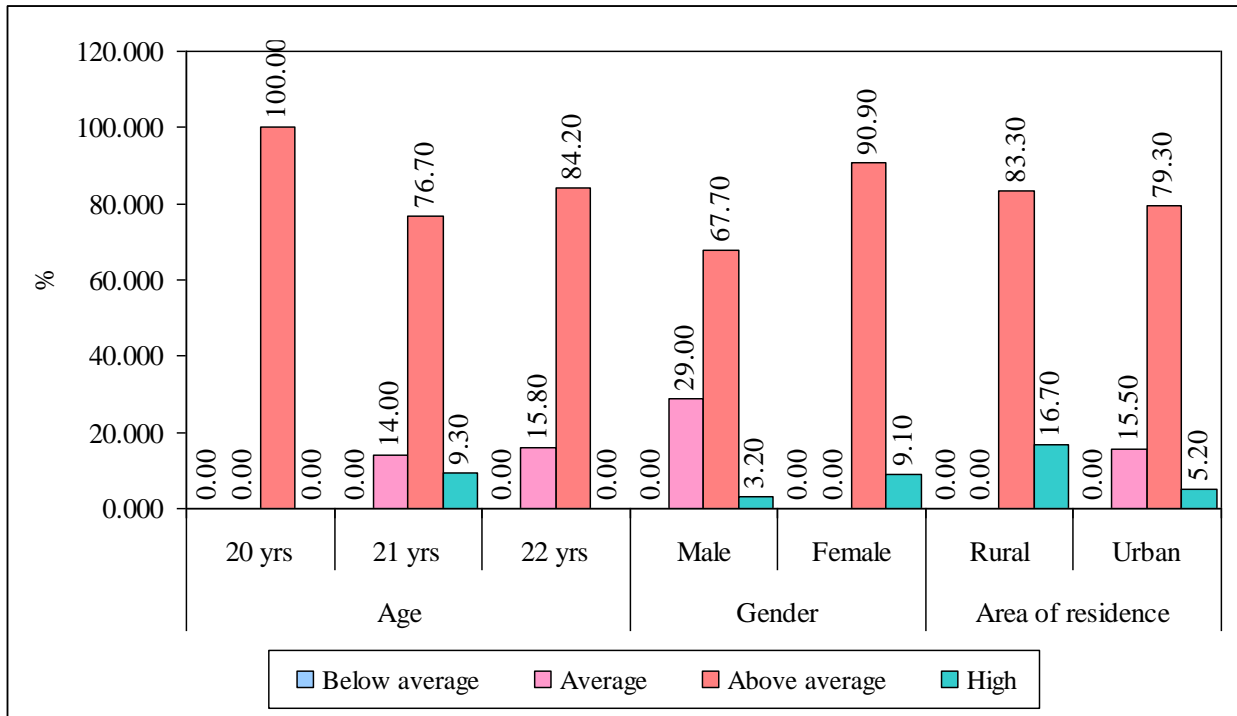
The demographic factor- Age: Participant from the age group 21 years 9.3% show high level of AR, whereas 84.2% of participants from 22 years of age ;76.7% from 21 years age and 2 participant (100%) from 20 years age group showed above average of AR followed by 15.8% of participants in 22 years age and 14% from 21 year showed average level of AR. The computed p value (0.6490) showed though there is association between age and level of AR not at significant level.

From the results related to gender it is seen that 9.1% of female and 3.2% male had high level of AR followed by 90.9% of female & 67.7% male participants having above average Academic Resilience while 29.0% of male participants showed average level of AR.

The calculated p-value of 0.0030 showed high significant association of gender with academic resilience.

Observations of results related to the area of residence reveal that 5.2% participants from urban and 16.7% from rural had high level of AR, whereas 83.3% participants from rural and 79.3% from urban area had above average level of AR followed by 15.5% from urban are showing average level of Academic resilience. The calculated p-value is 0.3510 showing association between the area of residence and level of AR but not at significant level. Therefore the results show clearly that among all the three demographic factor only age was significantly associated with academic resilience. Result are presented in Graph 4

**Graph 4: Association between demographic factors and levels of Academic Resilience of Medical students.**



**Tables 6: Association with demographic factors and level of Academic resilience in Dental student.**

Profile	Below average	%	Average	%	Above average	%	High	%	Total	Chi-square	p-value
<b>Age</b>											
20 yrs	0	0.0	2	18.2	9	81.8	0	0.0	11	5.6850	0.2240
21 yrs	0	0.0	6	15.4	31	79.5	2	5.1	39		
22 yrs	0	0.0	5	35.7	7	50.0	2	14.3	14		
<b>Gender</b>											
Male	0	0.0	3	20.0	11	73.3	1	6.7	15	0.0060	0.9970
Female	0	0.0	10	20.4	36	73.5	3	6.1	49		
<b>Area of residence</b>											
Rural	0	0.0	1	100.0	0	0.0	0	0.0	1	3.9850	0.1360
Urban	0	0.0	12	19.0	47	74.6	4	6.3	63		
Total	0	0.0	13	20.3	47	73.4	4	6.3	64		

**\*p<0.05**

With the reference to the table 6, Demographic factor- Age: 14.3% of participant from the age group of 22 year and 5.1% from 21 years, showed high level of AR, whereas 81.8% of students from 20 years, 79.5% from 21 years of age group & 50% from 22 years showed above average level of Academic Resilience followed by 35.7% of participants from 22 year age group, 18.2% in 20 years and 15.4% from 21 years of age group had average level of AR. The computed p-value 0.2240 showed though there is a association between age and level of Academic resilience but not at significant level.

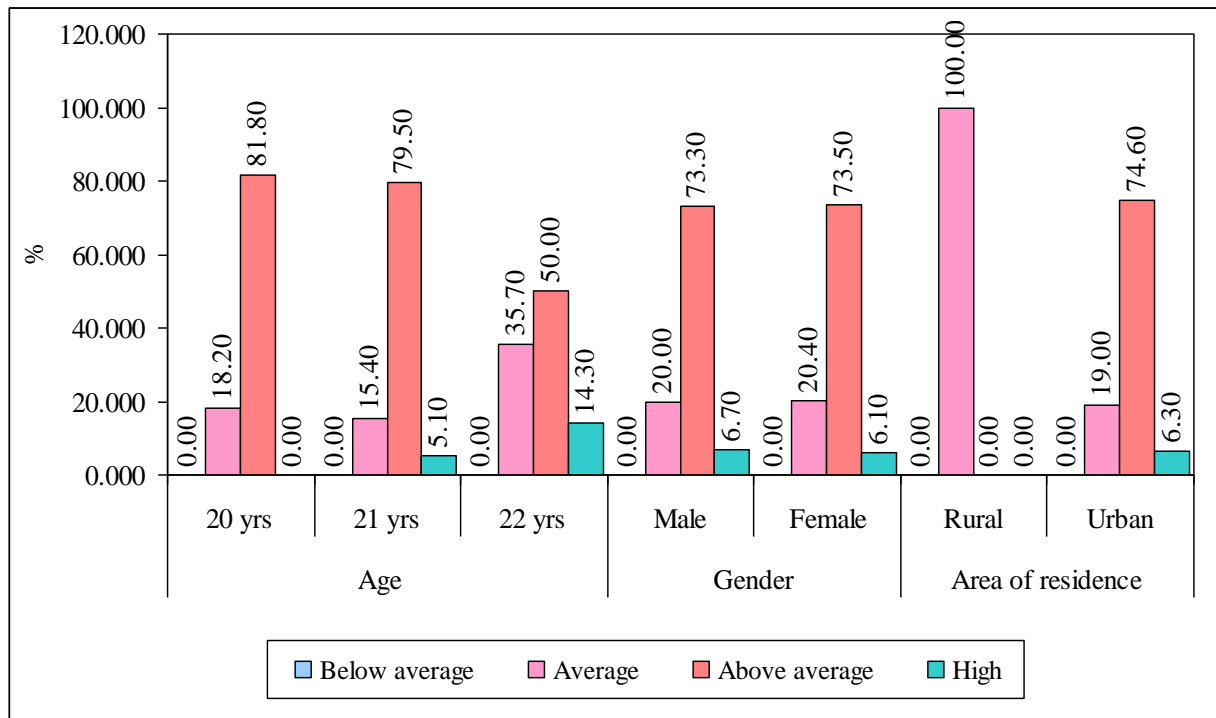
Results related to gender it is seen that 6.7% of male participants and 6.1% of female had high level followed by 73.5% female 73.3% of male participants having above average level of AR, while 20.4% of female 20.0% male participants had average level of AR. The calculated p-value 0.9970 showed association between the gender and AR but not at significant level.

Related to the area of residence 6.3% of participants from urban had high level followed by 74.6% urban participants having above average level of AR, whereas 1 participant (100%) from rural and 19.0% urban showed average.

The calculated p-value (0.1360) indicated that association found between area of residence and level of academic resilience which is quite nearer to significant but not statistically significant.

As per the analysis of results for both the groups- Dental and Medical students, significant association was found only between gender and AR in Medical student and no significant association was found between any of demographic profile and AR in Dental students. The same is presented in graph 5.

**Graph 5: Association with demographic factors and level of Academic Resilience in Dental students**



# SUMMARY AND CONCLUSION

## SUMMARY

The present study was conducted on Undergraduate Medical and Dental students to assess the level of Academic resilience from the city of Belagavi, Karnataka. Academic resilience is the capacity to thrive academically in the face of setbacks and hardship. It shows that despite facing challenges, the students achieve high academic standards. It demonstrates about scholastic success in the face of demanding or difficult conditions during the learning process (**Mihir K. Mallick and Kaur 2016**). The objective of the study was to compare the level of AR and association with demographic variables among medical & dental students.

## CONCLUSION

- 1) Medical students have above average level of Academic Resilience than dental students
- 2) There is no statistically significant difference in Academic Resilience among medical and dental students
- 3) There is a significant association of gender with Academic Resilience among medical students than dental students.

## **SUGGESTIONS**

1. Studies need to be conducted on students with different educational background to evaluate their Academic Resilience.
2. Further studies must also include participants from other health and allied sciences with larger size sample and various demographic factors.
3. More number of scientific studies must be encouraged and carried out in the educational institutions across the country on Resilience in Academic.
4. Students must be given the facilities and opportunity to utilize counselling services, awareness programs, related workshops, seminars, techniques and coping skills that are helpful to identify risk indicators and give positive adaptation in their academics and also strengthening their resilience and well-being.

## **SOCIAL IMPLICATIONS**

The results of this study are helpful for the educational institutions, parents and students themselves, to understand the level of Academic resilience in their students, wards and about their own selves, in order to encourage the to participate in the class, academics, co-circular activities, by this students parents can support child by expressing their pride when they see their child achieve satisfactory academic results and encourage them and support when their ward if and when he/she does not meet course objectives and achievement levels.

## **LIMITATIONS**

1. Current study included only Medical and Dental Undergraduate students with smaller sample.
2. Geographic area of study was restricted only to Belagavi.
3. Only three demographic factors were studied.

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## ANNEXURE-I



K.L.E. ACADEMY OF HIGHER EDUCATION AND RESEARCH  
(Deemed - to- be- University)

Accredited "A+" Grade by NAAC in (3<sup>rd</sup> Cycle) Placed in Category 'A' by MHRD (GoI)

**JNMC INSTITUTIONAL ETHICS COMMITTEE**  
**JAWAHARLAL NEHRU MEDICAL COLLEGE,**  
**NEHRU NAGAR, BELAGAVI-590010 (KARNATAKA-INDIA)**

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Ref No.MDC/JNMCIEC/ 228

Date: 26/05/2023

To,

PG Student in M.Sc. Psychology  
J. N. Medical College,  
BELAGAVI.

Sub: Institutional Ethical Clearance for the study.

With reference to the above, we wish to inform you that your proposed research project titled "ACADEMIC RESILIENCE AMONG UNDERGRADUATE MEDICAL AND DENTAL STUDENTS- A COMPARATIVE STUDY", is ethical and justifiable. The proposed research project has been cleared by the JNMC Institutional Ethics Committee.

(Dr. Smita Sonoli)  
Member Secretary  
JNMC Institutional Ethics Committee  
J.N.Medical College, Belagavi.

(Dr. Harsha Hegde)  
Chairman,  
JNMC Institutional Ethics Committee  
J.N.Medical College, Belagavi

## ANNEXURE-II

### INFORMED CONSENT FORM AND STATEMENT

**K.L.E. ACADEMY OF HIGHER EDUCATION AND RESEARCH,**

**J.N. MEDICAL COLLEGE, BELAGAVI.**

**DEPARTMENT OF PSYCHOLOGY**

**“ACADEMIC RESILIENCE AMONG UNDERGRADUATE MEDICAL AND DENTAL STUDENTS-A COMPARATIVE STUDY”**

**Name of Student/Principal Investigator:**

**Name of Guide/Co Investigators:**

**Objectives:**

**Introduction:** Academic resilience is the ability to bounce back from adversity. The capacity to overcome hardship is resilience. It is a crucial quality for success and a required talent for overcoming the challenges that come with life. Learning how to rebound and go forward after setbacks; for underprivileged students, encouraging academic resilience will result in better behaviour and performance. Academic resilience is the ability to succeed academically in the face of challenges. Academic success is one indication of academic resilience in students, but there are other indicators as well, such as the capacity to retain or improve grades from inadequate to higher ones, students who persevere or stay in college while experiencing challenging challenges until they may graduate.

**Explanation of procedure:** In this study, a standardized questionnaire on academic resilience (ARS-30) by Simon Cassidy (English) consisting of 30 items will be administered on each student. It will take approximately 20-25 minutes for the tests to be administered.

**Withdrawal from participation in the study:** “Your participation in this study will be voluntary. You are free to decide whether to participate or not in the study. In case you decide not to participate in the study, you will be able to withdraw your participation”.

**Possible benefits from participating in the study:** “You will not get any benefits but will come to know your level of happiness and forgiveness (if willing to)”.

**Possible risks from participating in the study:** There will not be any risk involved in the study. The scale will be administered for the sake of information regarding the levels of happiness and forgiveness in socially deprived women.

**Privacy and confidentiality:** “Your identity will not be revealed. All the information collected will be coded so that no one will know your identity. The data collected from you will be kept confidential and only aggregated data will be published”.

**Financial incentives:** “you will not receive any payment for participating in the study”.

**Authorization for publication of aggregated data:** Results of this study may be published for scientific purposes and/or presented to scientific groups; however, you will not be identified.

**Questions:** “In case of any questions with regard to this study, you are free to contact (PG Student, Department of Psychology, J. N. Medical College, KAHER, Nehru Nagar, Belagavi-590010) mobile no-or you may contact (Assistant Professor and I/c Head, Department of Psychology, J. N. Medical College, KAHER, Nehru Nagar, Belagavi-590010) Mobile no. -. If you have any question or complaints with regard to your right as study participant you may contact Dr Harsha Hegde, Chairperson, Ethical committee of JNMC, 0831-2473777 Extension 4052”.

**Legal rights:** By signing this consent form, we are not waving any of your legal rights.

## CONSENT STATEMENT

“I am making a voluntary decision to participate in the study. My signature below indicates that I have decided to participate and I have read the information provided above or the information provided above has been read to me in the language that I understand best. I was given the opportunity to ask questions and that they have been answered to my satisfaction.”

Name of the participant:

Signature or left thumb impression of the participant:

Name of the witness:

Signature or left thumb impression of the witness:

Name of the investigator:

Signature of the investigator:

Date: \_\_\_\_\_

Place: \_\_\_\_\_

ಒಪ್ಪಿಗೆ ಹೇಳಿಕೆ

"ನಾನು ಅಧ್ಯಯನದಲ್ಲಿ ಪಾಲ್ಗೊಳ್ಳುವ ಸ್ವಯಂಪ್ರೇರಿತ ನಿರ್ಧಾರವನ್ನು ಮಾಡುತ್ತಿದ್ದೇನೆ. ಕೆಳಗಿನ ನನ್ನ ಸಹಿ /ಎಡ ಹೆಬ್ಬರಳ ಗುರುತು ನಾನು ಭಾಗವಹಿಸಲು ನಿರ್ಧರಿಸಿದ್ದೇನೆ ಎಂದು ಸೂಚಿಸುತ್ತವೆ. ನಾನು ಮೇಲೆ ಒದಗಿಸಿದ ಮಾಹಿತಿಯನ್ನು ಸಂಪೂರ್ಣವಾಗಿ ಓದಿದ್ದೇನೆ (ಅಥವಾ ಮೇಲೆ ಒದಗಿಸಿದ ಮಾಹಿತಿಯನ್ನು ನನಗಾಗಿ ಓದಲಾಗಿದೆ) ನನಗೆ ಪ್ರಶ್ನೆಗಳನ್ನು ಕೇಳಲು ಅವಕಾಶ ನೀಡಲಾಗಿದೆ ಮತ್ತು ನನ್ನ ಪ್ರಶ್ನೆಗಳಿಗೆ / ಸಂದೇಹಗಳಿಗೆ ತೃಪ್ತಿಕರವಾಗಿ ಉತ್ತರಿಸಲಾಗಿದೆ".

ಪಾಲ್ಗೊಳ್ಳುವವರ ಹೆಸರು:

ಪಾಲ್ಗೊಳ್ಳುವವರ ಸಹಿ:

ಅಥವಾ ಎಡ ಹೆಬ್ಬರಳ ಗುರುತು:

ಸಾಕ್ಷಿಯ ಹೆಸರು:

ಸಾಕ್ಷಿಯ ಸಹಿ:

ಸಂಶೋಧಕರ ಹೆಸರು:

ಸಂಶೋಧಕರ ಸಹಿ:

ದಿನಾಂಕ:

ಸ್ಥಳ: ಬೆಳಗಾವಿ

संमती विधान

"मी अभ्यासात सहभागी होण्यास स्वयंसेवी निर्णय घेत आहे. खाली माझे स्वाक्षरी / डाव्या अंगठ्याचा ठसा मला सहभागी करण्याचा निर्णय घेतला आहे आणि मी वर दिलेली माहिती वाचली आहे (किंवा वरील माहिती मला वाचली आहे) आणि मला प्रश्न विचारण्याची संधी देण्यात आली आणि त्यास उत्तर देण्यात आले माझे समाधान "

सहभागी यचे नाव:

सहभागीचे सही:

किंवा डाव्या अंगठ्याचा ठसा:

साक्षीदाराचे नाव:

साक्षीदारांची सही:

संशोधनाचे नाव:

संशोधकाचे स्वाक्षरी:

तारीख:

स्थान: बेलगावी

## सहमति कथन

"मैं अध्ययन में भाग लेने के लिए एक स्वैच्छिक निर्णय ले रहा हूं। नीचे मेरे हस्ताक्षर / अंगूठे का निशान इंगित करता है कि मैंने भाग लेने का फैसला किया है और मैंने ऊपर प्रदान की गई जानकारी को पढ़ा है (या ऊपर दी गई जानकारी मुझे पढ़ी गई है) और मुझे प्रश्न पूछने का अवसर दिया गया था और उन्हें मेरी संतुष्टि के लिए जवाब दिया गया है ।"

प्रतिभागी का नाम:

प्रतिभागी का हस्ताक्षर

या बाएँ अंगूठे का निशान

गवाह का नाम:

गवाह के हस्ताक्षर

शोधकर्ता का नाम :

शोधकर्ता के हस्ताक्षर

दिनांक:

स्थान: बेलगावी

**ANNEXURE-III**

**QUESTIONNAIRE**

**THE ACADEMIC RESILIENCE SCALE (ARS-30)  
SIMON CASSIDY**

Please fill in the following information's:

Date: \_\_\_\_\_

Name \_\_\_\_\_

Age \_\_\_\_\_ Sex: Male  Female

Name of College \_\_\_\_\_

Class \_\_\_\_\_

Present Residence: Town  Village

Mobile/ Telephone no. \_\_\_\_\_

**INSTRUCTIONS**

On the following pages 30 statements have been given  
Read each statement carefully and decide your answer on anyone of the five alternative  
answers, viz., Extremely unlikely, Unlikely, Neutral, Likely and Extremely likely. Put a tick  
 mark in the appropriate cell which describes your academic performance. There is no  
limit as such but it is expected from you to complete it in approximately 20-25minutes  
Please do answer to all the 30 statements.

Your answers will be kept confidential.

Statements	Extremely unlikely	Unlikely	Neutral	Likely	Extremely likely
1. I would not accept the tutor's feedback					
2. I would use the feedback to improve my work					
3. I would just give up					
4. I would use the situation to motivate myself					
5. I would change my career plans					
6. I would probably get annoyed					
7. I would begin to think my choices of success at university were poor					
8. I would see the situation as a challenge					
9. I would do my best to stop thinking negative thoughts					
10. I would see the situation as temporary					
11. I would work harder					
12. I would probably get depressed					
13. I would try to think of new solutions					
14. I would be very disappointed					
15. I would blame the tutor -					
16. I would keep trying					
17. I would not change my long-term goals and ambitions					
18. I would use my past successes to help motivate myself					
19. I would begin to think my chances of getting the job I want were poor					
20. I would start to monitor and evaluate my achievements and effort					
21. I would seek help from my tutors					
22. I would give myself encouragement					
23. I would stop myself from panicking					
24. I would try different ways to study					
25. I would set my own goals for achievement					

26. I would seek encouragement from my family and friends					
27. I would try to think more about my strengths and weaknesses to help me work better					
28. I would feel like everything was ruined and was going wrong					
29. I would start to self-impose rewards and punishments depending on my performance					
30. I would look forward to showing that I can improve my grade.					