Grit is figuring out and wanting to have established goals for the future [1]. Furthermore, it enables students to see a goal through to completion [2]. In addition, it involves using self-control, making decisions, and acting in ways that will eventually lead to success [3]. Moreover, grit, perseverance and passion for long-term goals have recently been connected to success and achievement in various contexts. Grit may help someone in a collegiate context become more self-aware of their capacity for academic success [4]. Additionally, it realizing and accomplishes important long-term goals while maintaining the flexibility to satisfy those short-term, daily objectives. Grit is more than being strong-willed or tenacious in the face of difficulty. When faced with obstacles, unfavourable comments, failures, or stagnation in their endeavours, more resilient individuals often look for comprehension to keep going and do better—they never stray from their objectives [5]. Moreover, two noncognitive abilities are included in grit: perseverance in effort and consistency in interest. These two skills have received much attention lately in health and general education programs [6]. It has also been demonstrated that grit strongly correlates with other qualities, including consistency, perseverance, and conscientiousness, one of the big five personality traits [7, 8]. Additionally, it is more important in predicting achievement than other traits or factors, such as higher grade point averages and longer employment tenure [5]. Grittier people have been demonstrated to perform better both academically and extracurricularly. They also exhibit higher motivation levels as they look for purpose in their work and strive towards it [9]. Grit was a stronger predictor of individual achievement than talent alone regarding achievement indicators in academic and non-academic domains [9]. In this regard, a descriptive study aims to explore how grit affects nursing students' adaption to clinical practice. Grit was discovered to influence nursing students' clinical practice adaption, accounting for 32.0% of the adaptation. Therefore,
initiatives to strengthen grit and the development of clinical practice curricula are required to boost the clinical practice adoption of nursing students [10]. In addition, the data analysis of other studies revealed a positive correlation between the individuals' grit and their self-efficacy and self-esteem [11]. Another study found that grit was the factor that affected nursing students' capacity for self-directed learning the most [12]. Additionally, grit has been identified as one of the most essential ways of coping with mental health stresses. It is crucial to investigate grit to understand better and increase the possibilities of academic success and personal well-being for at-risk students [13]. In addition, it is particularly useful in guiding the kind of instruction that should support nursing students during their clinical rotations [11]. Grit reduced the intention to leave the job and raised job participation. As a result, developing a programme and techniques to strengthen nurses' grit is essential to lowering their intention to leave [16]. As a result, grit is a crucial trait that can help students succeed in nursing programmes and as graduate nurses in clinical settings [15]. Therefore, this study aims to assess the grit among nursing students at a private institute in Karachi, Pakistan. There is currently relatively little study material that describes nursing students' general grit levels and the elements that may influence their grittiness. Understanding the grit levels among nursing students can inform tailored support systems within educational institutions.

M E T H O D S

This cross-sectional study was conducted in two nursing institutes in Karachi, Pakistan, from July to September 2023. Moreover, this study adopted a convenient sampling technique to approach the study participants. The sample size was calculated through Open Epi with a 95% confidence interval with a total population of 200. The calculated sample size was 132, but 15 did not give the data, so the final participants were 117. Furthermore, the Grit Scale, developed by Angela Duckworth [16] for the data collection, measures traits such as Consistency of Interest, Perseverance of Effort, and Ambition. Participants rate themselves on a Likert scale ranging from 1 to 5, where five represents "Very much like me" and one represents "Not like me at all." Consistency of Interest assesses the stability of one's interests, Perseverance of Effort evaluates the ability to maintain motivation despite challenges, and Ambition measures the drive to achieve long-term goals. The tool total score was 85, and this converted into the percentage of those participants who scored (1-28) considered Low Grit, Moderate Grit (29-56) and High Grit (57-85). The tool Cronbach alpha has been calculated on 10% of the total population, and the value is 0.84. Nursing students from 3rd year and 4th years were part of this study. Both males and females were included. Those who were not willing to participate in the study were excluded. The data were collected through Google Forms. Before the data collection, the participants read and understood the consent form, and after they clicked on the consent form, the participants filled out the questionnaire. Before the data collection, consent forms were taken from each participant. Study approval was taken from the relevant institute to maintain the ethical integrity of the study. SPSS version 26.0 was used for the data analysis. Descriptive statistics such as mean, frequency and percentage were used to analyze the data.

R E S U L T S

Table 1 provides the result of demographic variables in which 99.1% are male, and 6.0% are females. Regarding age, most of the participants, 94% were between 19 and 24. Only a small proportion had ages between 25-29. Concerning their academic year, 47.9% from the 3rd year and 52.1% from the 4th year.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>19-24</td>
<td>110 (94.0)</td>
</tr>
<tr>
<td>25-29</td>
<td>7 (6.0)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>116 (99.1)</td>
</tr>
<tr>
<td>Female</td>
<td>1 (0.9)</td>
</tr>
<tr>
<td><strong>Academic year</strong></td>
<td></td>
</tr>
<tr>
<td>Year3</td>
<td>56 (47.9)</td>
</tr>
<tr>
<td>Year4</td>
<td>56 (47.9)</td>
</tr>
</tbody>
</table>

Table 2 provides the result of levels of grit among nursing students. In which 0% had low grit, 4.3% had moderate grit, and 95.7% had high grit.

<table>
<thead>
<tr>
<th>Level of Grit</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Grit (1-28)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Moderate Grit (29-56)</td>
<td>5 (4.3)</td>
</tr>
<tr>
<td>High Grit (57-85)</td>
<td>112 (95.7)</td>
</tr>
</tbody>
</table>

Table 3 shows the mean of the grit score. The total score was 85, and the mean score was 73.8376.

<table>
<thead>
<tr>
<th>N</th>
<th>Mean ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>117</td>
<td>73.837±10.583</td>
</tr>
</tbody>
</table>

D I S C U S S I O N

It is common knowledge that raising student accomplishment levels is crucial for improving individual and organizational performance in the classroom and academic setting.
Numerous studies in the present era suggest that students’ grit levels significantly positively impact their academic performance [1]. Therefore, this study aims to assess the grit level among nursing students. The present findings show that 95.7% had high grit among the study participants. There are studies reported which suggests higher level of grit among participants [15, 17–19], which is consistent with our data. Grit helps students persevere through challenges and setbacks, keeping them focused on their long-term goals despite difficulties. Gritty students are more likely to achieve their academic goals because they are willing to put in the effort required to master complex subjects and skills [20, 21]. Due to several unfavourable social and personal situations, grit lessens detrimental effects on nursing students’ educational experiences. In fact, grit and other protective qualities indirectly influence academic performance and achievement orientation. The consistency of interest is not as crucial as the perseverance of effort. Therefore, academic staff can support their teaching efforts by creating a learning atmosphere emphasizing grit [22, 23]. Students who develop grit and a growth attitude will be better equipped to achieve their objectives and more driven to stay with them [24]. The current findings show that 4.3% had a moderate level of grit. There are studies who also found moderate level of grit among participants [15, 25]. Students with greater grit experience greater academic performance than those with less grit [1]. Another study found that achievement rises with grit level in a student’s academic life. According to regression research, grit is a significant predictor of success [1]. A result, nurse educators ought to support initiatives that strengthen nursing students’ grit [26]. Because it is a crucial protective quality that helps nursing students handle the significant stress they encounter in their studies, especially those related to their educational experience [26]. Studies found that 3.27–3.5 out of 5 indicate an average grit level [27–29]. The present study found that the mean grit score is 73.8, indicating a high level of grit. In contrast, studies found opposing results and showed a mean score of 37.62, 27.3 and 41.09 respectively [23, 30, 31]. A research study concluded that knowing a person’s grit level can help identify healthcare professionals more likely to experience burnout. Given that grit is correlated with a lower risk of burnout, therapies aimed at enhancing grit via resilience training warrant further investigation. More research is required to understand why healthcare professionals endure higher levels of burnout and how their grit levels evolve over their careers[32].

**CONCLUSIONS**

Based on the findings, an overwhelming majority of nursing students (95.7%) exhibited high levels of grit, with none showing low grit and a small percentage (4.3%) demonstrating moderate grit. Implementing grit-focused interventions or programs within the nursing education curriculum is recommended. These initiatives can further enhance students’ resilience and perseverance, equipping them with the necessary mindset to navigate.

**Authors Contribution**

Conceptualization: MI, AB  
Methodology: FK  
Formal analysis: AB, FK  
Writing-review and editing: AA  
All authors have read and agreed to the published version of the manuscript.

**Conflicts of Interest**

The authors declare no conflict of interest.

**Source of Funding**

All authors have read and agreed to the published version of the manuscript.

**REFERENCES**


Arnold KR. Examining Academic Success Factors and Grit in Baccalaureate Nursing Students. Charleston Southern University; 2022.


Martin H, Craigwell R, Ramjarrie K. Grit, motivational

