Psychological resilience for students of faculty of physical education and sports science

Adel Omar Salih1ABCDE, Ahmed Abdella Younis1ABCDE, Hamdi Chtourou2,3ABCDE

1 Faculty of Physical Education and Sports Sciences, University of Benghazi, Libya
2 High Institute of Sport and Physical Education of Sfax, University of Sfax, Tunisia
3 Research Unit, Physical Activity, Sport, and Health, UR18JS01, National Observatory of Sport, Tunisia

Authors’ Contribution: A – Study design; B – Data collection; C – Statistical analysis; D – Manuscript Preparation; E – Funds Collection

Abstract

Background and Study Aim
Understanding the psychological resilience of the student population is becoming increasingly significant in contemporary times. The research aims to identify the level of psychological resilience among students at the Faculty of Physical Education and Sports Sciences, and also the differences in average scores in the level of psychological resilience among them.

Material and Methods
The research used a descriptive approach, employing the survey method to collect data. The research sample deliberately included 68 male and female students from the teaching, training, and rehabilitation division in the Faculty of Physical Education and Sports Sciences. The Connor-Davidson Resilience Scale (CD-RISC) was used after excluding some items to make it suitable for the Libyan environment.

Results
The results show a high level of psychological resilience among the students in both the teaching and training divisions, while it was average for the students in the rehabilitation division. Additionally, there are statistically significant differences between the three divisions, with the teaching division having higher scores. There are no statistically significant differences between the training and rehabilitation divisions in terms of the scale of psychological resilience, due to the similarity of means.

Conclusions
Increasing the level of students’ psychological resilience may result from assigning greater responsibility to them during the field training period, which simulates their future work environment. Additionally, it is advisable to develop preventive programs aimed at reducing the low level of psychological resilience among students and to prepare guidance programs aimed at enhancing psychological resilience among students.

Keywords: psychological resilience, university, self-efficacy, life satisfaction, students

Introduction

The university stage is considered one of the important stages in an individual’s life, as he seeks to achieve his goals and ambitions and determines the shape of his future life. In order for the student to pass this stage successfully, he must work hard, persevere, and fulfill many academic and social requirements. The university is also an institution that represents the top of the educational pyramid, as it is the primary contributor to building society through the specialized cadres it produces, which in turn initiate the development process in society. University youth represent an important segment of society. They are the backbone of development in various areas of life, and there is no development without an effective force that is balanced psychologically and emotionally [1, 2].

Like any age stage, the university stage has its own problems and is not devoid of various pressures and frustrations to which students may be exposed. It is due to the nature of the age and school stage, as well as successive cognitive and technological developments, and the resulting requirements and needs for high skills and competencies. This has negatively affected them and made them vulnerable to many psychological disorders. These disorders, in turn, have affected their ability to carry out tasks. What is required of them and their accomplishment, and accepting their life and feeling satisfied with it in general.

Benard [3] states that resilient students have a high level of ambition that appears in their high expectations, the presence of goals and motivation for life, as well as the clarity of personal strength and possession of problem-solving skills. He also confirmed that these characteristics contribute to developing a sense of belonging and participation, and reducing feelings of alienation and lack of belonging.

The psychological resilience in psychology refers to the idea of an individual’s tendency to remain steadfast and maintain his calm and self-balance when exposed to pressure or nervous situations, as well as his ability to effectively adapt and confront
these pressures and traumatic situations positively. Hence, in order for an individual to be able to confront various pressures, he must have a set of traits and characteristics, including psychological resilience, which helps the individual adapt to traumatic events, adversity, and continuous stressful situations. It is a continuous process through which the individual shows positive adaptive behavior in confronting adversity, trauma, and sources of psychological stress. Thus, he can achieve himself and give his life a meaning and a goal that he seeks to achieve heading into life. This is what positive psychology means, which aims to protect individuals from psychological disorders and enable them to face life’s challenges [4, 5, 6]. The ultimate goal that it seeks to spread is improving the quality of life and getting the individual out of the limits of self-change to bring about positive changes in the surrounding community [7, 8, 9, 10].

The importance of the research lies in the fact that it sheds light on a topic that did not receive attention from researchers in the local community or civil society institutions in the country. This is especially relevant after the events that the country has gone through since 2011, including wars, political conflicts, and the Covid pandemic. These events have placed a burden on all institutions, particularly within the education sector, whether at the basic or higher education levels. The importance also lies in identifying the level of psychological resilience of the student population at the Faculty of Physical Education and Sports Sciences and the difference between them.

Research Problem. University youth are among the groups that face many obstacles, difficulties, psychological traumas, and pressures. This is especially true as they pass through the university study stage, which is considered one of the most challenging phases of life. In addition, they have many aspirations. A large percentage of university students deviate in their behavior due to the internal and external conflicts and frustrations they suffer due to which they feel anxious about success or lack thereof [11, 12, 13].

Through their work in the field of education, the authors noticed the pressures of life and study that university students are exposed to. They observed these pressures in light of cognitive and technological developments and the inability of some students to cope with life’s changes, which can lead to additional stress. Therefore, the authors saw the need to study the psychological resilience of students at the university stage. Hence, the current study will attempt to reveal the positive aspects of the students of the Faculty of Physical Education and Sports Sciences, by identifying the level of psychological resilience and the differences between them among the research sample under study.

Research Questions:
A) What is the level of psychological resilience among students of the Faculty of Physical Education and Sports Sciences?
B) Are there differences in the average scores in the level of psychological resilience among students at the Faculty of Physical Education and Sports Sciences?

Purpose of the Study:
1. Identifying the level of psychological resilience among students at the Faculty of Physical Education and Sports Sciences.
2. Identifying the differences in average scores in the level of psychological resilience among students at the Faculty of Physical Education and Sports Sciences.

Materials and Methods
Participants
The research community consists of students from the Faculty of Physical Education and Sports Sciences that are enrolled to general, teaching, training or rehabilitation division, who number 140 male and female students.

Research Design
Research Approach. The researchers used the descriptive approach using the survey method to collect data for the research.

Research Sample. The research sample was selected deliberately from students of the Faculty of Physical Education and Sports Sciences, with a number of 68 students and a percentage of 48% distributed as listed in Table 1.

<table>
<thead>
<tr>
<th>Community</th>
<th>No.</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching division</td>
<td>15</td>
<td>22%</td>
</tr>
<tr>
<td>Training division</td>
<td>26</td>
<td>38%</td>
</tr>
<tr>
<td>Rehabilitation division</td>
<td>27</td>
<td>40%</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>100%</td>
</tr>
</tbody>
</table>

Research Domains:
A) Temporal domain: The basic study was conducted from March 01, 2023 until May 18, 2023.
B) Spatial domain: Faculty of Physical Education and Sports Sciences.
C) Human domain: Students from the Faculty of Physical Education and Sports Sciences which includes students from teaching, training, and rehabilitation division.

Data Collection Tool. In order to collect data, the researchers used The Connor-Davidson Resilience Scale (CD- RISC) [14], which was prepared by Al-Kolaly [15] before to be suitable for Egyptian environment. After presenting it to a group of experts and specialists, the following items No.
were excluded so that it would be suitable for the Libyan environment.

**Exploratory Study.** The exploratory study was conducted in the period from March 01–12, 2021 on a sample of students from the Faculty of Physical Education and Sports Sciences from within the community, and from outside the basic sample in order to extract stability coefficient and self-honesty coefficient of the scale as listed in Table 2.

Table 2. Self-honesty and stability coefficient of the scale.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Statistical Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stability</td>
</tr>
<tr>
<td>Psychological resilience</td>
<td>0.84</td>
</tr>
</tbody>
</table>

**Statistical Analysis**

Statistical Package for Social Sciences (SPSS) software, version 21, was relied upon to perform the statistical treatments, where the following calculations and statistical operation were performed:

- Arithmetic mean; Assumed mean; Standard deviation; Coefficient of torsion; T-test value; Least and greatest values; One-way Analysis of Variance (ANOVA); Scheffe’s test for the least significant difference.

**Results**

**Results of the First Research Question**

It is clear from Table 3 that the value of the arithmetic mean for the sample may be included among the divisions. Students of teaching division have reached an arithmetic mean of 79.60 which is higher than the assumed mean, which indicates that the students possess a high level of psychological resilience. As for the students of training division, they achieved an arithmetic mean of 62.73 which is higher than the assumed mean, which indicates that they have a high level of psychological resilience. As for the students of rehabilitation division, the arithmetic mean reached 58.78 which is a value close to the assumed mean, which indicates that they possessed a level of average psychological resilience.

**Results of the Second Research Question**

It is clear from Table 4 using one-way Analysis of Variance (ANOVA) that there are statistically significant differences in the scale of psychological resilience for the students of Faculty of Physical Education and Sports Sciences for the three divisions. Accordingly, the researchers calculated significance of differences of the arithmetic means using the Scheffe's test for the least significant difference as listed in Table 5 where it is clear that

Table 3. Descriptive statistics of psychological resilience regarding to community (n = 68).

<table>
<thead>
<tr>
<th>Community</th>
<th>Psychological Resilience Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum Value</td>
</tr>
<tr>
<td>Teaching division</td>
<td>60</td>
</tr>
<tr>
<td>Training division</td>
<td>38</td>
</tr>
<tr>
<td>Rehabilitation division</td>
<td>30</td>
</tr>
</tbody>
</table>

Significance level at 0.05

Table 4. One-way ANOVA for the three divisions regarding to psychological resilience scale (n = 68).

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Psychological Resilience Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sum of Squares</td>
</tr>
<tr>
<td>Between groups</td>
<td>04375.68</td>
</tr>
<tr>
<td>Within groups</td>
<td>10235.40</td>
</tr>
</tbody>
</table>

Significance level at 0.05

Table 5. Significance of differences between the means of the psychological resilience scale (n = 68).

<table>
<thead>
<tr>
<th>Community</th>
<th>Arithmetic Mean</th>
<th>Mean Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teaching Division</td>
<td>Training division</td>
</tr>
<tr>
<td>Teaching division</td>
<td>79.60</td>
<td>16.87*</td>
</tr>
<tr>
<td>Training division</td>
<td>62.73</td>
<td></td>
</tr>
<tr>
<td>Rehabilitation division</td>
<td>58.78</td>
<td></td>
</tr>
</tbody>
</table>

Significance level at 0.05
the significance of differences between the means of the psychological resilience scale for the three divisions using the Scheffe’s test that:

1. There are statistically significant differences between the three divisions, in favor of teaching one.
2. There are no statistically significant differences between training and rehabilitation division in the scale of psychological resilience due to the convergence of means.

Discussion

In the following discussion, we delve into the results of our study, considering two key research questions. These findings shed light on the vital role of practical education in students’ academic and professional development, while also emphasizing the significance of their interactions in real-world settings. Furthermore, our conclusions align with prior research [16, 17, 18, 19], underscoring the consistent importance of such practical experiences in education.

In the context of the first research question, the positive results can be attributed to the comprehensive practical education that students in all three divisions receive at training and therapeutic centers. This hands-on experience extends over a two-year period during their studies at the faculty. These students actively apply their knowledge by mentoring their junior peers. The initial training prepares them for practical work in schools, sports clubs, and therapeutic centers, equipping them with valuable cognitive and practical experience in environments that closely resemble their future careers. These findings are encouraging, suggesting a positive outlook for the psychological well-being of students within the Faculty of Physical Education and Sports Sciences and society as a whole. It’s worth noting that our results align with previous studies by Abdelrahman and Alazab [16], Bachene and Hasiba [17], emphasizing the importance of such practical experiences.

In light of the second research question, the observed distinctions among the scientific divisions within the faculty can be attributed to several factors. These differences notably favored the teaching division, offering diverse career prospects for its students. As future educators, they are well-prepared to work with younger age groups, showcasing exceptional skills in effective interaction. This success can also be attributed to the practical education provided during the final years of university studies (third and fourth year). Students spent significant time in schools, actively participating in various educational activities while assuming various responsibilities. Although they received comprehensive training in fieldwork, academies, sports clubs, and practical applications at therapeutic centers and hospitals, it’s worth noting that full responsibility was not consistently placed on them during these experiences. These findings align with prior research, particularly the studies conducted by Abdelrahman and Alazab [16], Alshamri [18], and Al-Sheikh [19], underscoring the significance of practical experiences in students’ development.

In conclusion, the observed differences among scientific divisions, with a notable advantage for the teaching division, highlight the importance of practical education in students’ preparation for future careers. The positive outcomes associated with their interaction and responsibilities in real-world settings, despite the lack of full responsibility, underscore the value of such experiences. These findings affirm the significance of practical training in shaping students’ capabilities and potential for various career directions. Additionally, the alignment of our results with previous studies underscores the consistency and importance of these practical experiences in education, emphasizing their role in preparing students for their professional roles in the future.

Conclusions

In light of the research results, the following conclusions can be drawn:

1. The high level of psychological resilience among the research sample from both teaching and training divisions.
2. The level of psychological resilience for the students of rehabilitation division was average.
3. There are statistically significant differences between teaching, training and rehabilitation division, and in favor of teaching one.
4. There are no statistically significant differences between both training and rehabilitation division in the scale of psychological resilience, due to the convergence of means.

Conflict of interest

The authors declare that there is no conflict of interests.
References

Information about the authors:

**Adel O. Salih;** (Corresponding author); https://orcid.org/0009-0004-9622-3117; adelalsehaty2@gmail.com; Faculty of Physical Education and Sports Sciences, University of Benghazi; Benghazi, Libya.

**Ahmed A. Younis;** https://orcid.org/0009-0001-4697-8827; ahmdbdallhaldrsy675@gmail.com; Faculty of Physical Education and Sports Sciences, University of Benghazi; Benghazi, Libya.

**Hamdi Chtourou;** https://orcid.org/0000-0002-5482-9151; hamdi.chtourou@gmail.com; High Institute of Sport and Physical Education of Sfax, University of Sfax (Sfax, Tunisia); Research Unit, Physical Activity, Sport, and Health, UR18JS01, National Observatory of Sport (Tunis, Tunisia).

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