Emotional progression among players of different games

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Abstract
Aim: To find out the significant differences of “Emotional Progression” among players of different games.

Material and Methods: Emotional Stability data was collected (N=36) through semi-structured questionnaire in form of google forms from players of different games Volleyball (N=12), Handball (N=12) and Boxing (N=12).

Sampling Technique: The method of purposive sampling was used to develop the sample of the research under discussion. According to this method, which belongs to the category of non-probability sampling techniques, sample members are selected based on their knowledge, relationships, and expertise regarding a research subject.

Statistical Treatment: The Statistical Package for the Social Sciences (SPSS) version 14.0 was used for all analyses. The differences in the mean of each group for selected variable were tested for the significance of difference by One-way Analysis of Variance (ANOVA).

Results: Since $p$-value < $\alpha$, H0 is accepted. The averages of all groups considered to be equal. In other words, the difference between the averages of all groups is not big enough to be statistically significant.

Keywords: Emotional progression, emotional stability, volleyball, handball and boxing

Introductions
Physical activity is any bodily movement produced by skeletal muscle that results in energy expenditure (Caspersen, Powell, & Christenson, 1985) [1]. Physical activity can occur spontaneously (leisure/work/transport) or organized and be divided according to purpose: Physical exercise is aimed primarily at improving health and physical capacity. Physical training is aimed primarily at increasing the individual’s maximum physical capacity and performance (Solna Sweden 2016) [2]. These involved performances of some basic skills like strength, speed, endurance, flexibility, agility for running, jumping, throwing and climbing for the persistence of hunting, gathering food and building shelter for their living (Mehtap Ozdiren, Nihal Gelecek, 2005) [3]. The basic movement like running, throwing, climbing, jumping lifting etc. requires specific physical attributes such as muscular strength, muscular endurance, cardiovascular endurance, strength, balance and coordination (W.H.O, 1981) [4]. According to Clarke, Harrison, H. (1971) [5] Physical fitness is defined as ability to carry out daily tasks with vigor and alertness without undid fatigue with ample energy leisure time pursuits to meet usual situation and unforeseen emergencies. Genetic contributions to fitness are important but probably account for less of the variation observed in fitness than is due to environmental factors, particularly physical activity (Bouchard, C., and L. “Pe” Russe, 1994) [6]. Physical activity and sports are generally promoted for their positive effect on children’s physical health; regular participation in physical activity in childhood is associated with a decreased cardiovascular risk in youth and adulthood (Penido FJ). Childhood and teenage physical exercise is correlated with physical wellbeing and short to long-term psychological and social advantages (Priesmeyer, Fedewa & Toland, 2019) [7].

Material and Methods
Selection of Subjects
Emotional Progression data was collected (N=36) through semi-structured questionnaire in form of google forms from players of different games Volleyball (N1=12), Handball (N2=12) and Boxing (N3=12).
and Boxing (N=12).

### Table 1: Selection of subject with reference to their playing position

<table>
<thead>
<tr>
<th>Different Games</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volleyball</td>
<td>12</td>
</tr>
<tr>
<td>Handball</td>
<td>12</td>
</tr>
<tr>
<td>Boxing</td>
<td>12</td>
</tr>
<tr>
<td>Sample Size</td>
<td>36</td>
</tr>
</tbody>
</table>

### Emotional Progression

Emotional progression is the characteristic of a person that refers to a feeling of adequate advancement and growing vitality of emotions in relation to the environment to ensure a positive thinking imbued with righteousness and contentment. It consumes high inter associations through personality disintegration (.47) lack of independence (.47) and low inter correlation with social maladjustment (.27) and emotional unstability (.18). It also has a high correlation (.63) with the total score on all the five factors of the scale.

### Questionnaires

<table>
<thead>
<tr>
<th>Questionnaires</th>
<th>Authors</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Maturity</td>
<td>Goldberg</td>
<td>1993</td>
</tr>
</tbody>
</table>

Protocol of power analysis was done to get the required number of sample (n=36) for the experimental study with large effect size (0.45), as to obtain the strong impact on power (1-β err prob=0.75) of the study at α err prob=0.05.

### Sampling Technique

The method of purposive sampling was used to develop the sample of the research under discussion. According to this method, which belongs to the category of non-probability sampling techniques, sample members are selected based on their knowledge, relationships, and expertise regarding a research subject.

### Statistical Treatment

The Statistical Package for the Social Sciences (SPSS) version 14.0 was used for all analyses. The differences in the mean of each group for selected variable were tested for the significance of difference by One-way Analysis of Variance (ANOVA).

### Results

#### Table 2: ANOVA analysis of Emotional Progression

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Square</th>
<th>Mean Square</th>
<th>F Statistic</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups (between groups)</td>
<td>2</td>
<td>240.666701</td>
<td>120.333351</td>
<td>0.845014</td>
<td>0.438635</td>
</tr>
<tr>
<td>Error (within groups)</td>
<td>33</td>
<td>4699.333382</td>
<td>142.404042</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>4940.000083</td>
<td>141.142860</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**One Way ANOVA test**

**1. H₀ hypothesis**

Since p-value > α, H₀ is accepted. The averages of all groups considered to be equal. In other words, the difference between the averages of all groups is not big enough to be statistically significant.

**2. P-value**

p-value equals 0.438635, [p (x ≤ F) = 0.561365]. This means that if we would reject H₀, the chance of type I error (rejecting a correct H₀) would be too high: 0.4386 (43.86%).

The bigger the p-value the stronger it supports H₀.

**3. The statistics**

The test statistic F equals 0.845014, is in the 95% critical value accepted range: [-α: 3.2849]

**4. Effect size**

The observed effect size f is medium (0.23). That indicates that the magnitude of the difference between the averages is
medium. The \( \eta^2 \) equals 0.049. It means that the group explains 4.9% of the variance from the average (similar to \( R^2 \) in the linear regression).

5. Tukey HSD / Tukey Kramer
There is no significant difference between the means of any pair.

![Graphical representation of F and P value on the Emotional Progression.](image)

Fig 2: Graphical representation of F and P value on the Emotional Progression.

References
5. Clarke, Harrison H. Basic understanding of physical fitness research digital; c1971.