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Original Article

Static and Dynamic Balance in Elite Wrestlers: Is there a Meaningful Relationship with Muscle Power?

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ABSTRACT

The aim of the study was to verify the possible relationship between reactive strength index (RSI), jumping performance and static and dynamic balance parameters in elite wrestlers. Fourteen international level male wrestlers (mean age: 17.82±4.60 yrs) performed a standing stork balance test (SST), Y-balance test (YB), dominant-leg unilateral and bilateral vertical (CMJ-DL, CMJ), lateral (SLJ-DL, SLJ), 5 jump (FJT) and drop jumps (DJ-DL, DJ). Significant positive correlations were observed between the SST and bilateral vertical jump CMJ (r-range: 0.41 to 0.63; p<0.005) as well as unilateral vertical jump with the dominant leg (r-range: 0.58 to 0.64; p<0.005). Pearson's corelations portrayed significant relationship between SST and FJT and SLJ and SLJ-DL (r-range: 0.41 to 0.58; p<0.005). The composite score of the Y-balance test showed no correlation with DJ, SLJ or DJ-DL (r-range = 0.26 to 0.36; p<0.05). However, there were moderate to large positive correlations with CMJ-DL and CMJ (r-range: 0.54 to 0.71; p<0.005) as well as with FJT (r: 0.50; p<0.005) and SLJ-DL (r: 0.71; p<0.005). Our findings are evident of an association between jumping capacity, reactive strength (i.e. RSI) and balance performance, that reinforce the need for differential plyometric training programs aimed at improving balance control in elites wrestlers.

Keywords: Balance, muscle power, relationship, elites athletes

INTRODUCTION

Wrestling is a sport of multdimensional demands which include the need to express explosive power, strength, neuromuscular coordination and static and dynamic balance [2]. A previous analysis of junior world champions suggests that strength and power are major contributors to success and tend to differentiate champions from other competitors [24]. These qualities underpin such skills as repetitive pulling and pushing, controlling take downs, and maintaining or resisting the arch position [7].

In athletic activities, movements such as jumping are dependent on leg muscle power, flexibility and

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technique [7]. Also, deficits in muscle strength and power can lead to impaired balance and, therefore, lower performance levels [3, 15, 5, 14]. The cited studies highlight the importance of the interaction between strength, power and balance on performance qualities and, on this basis, the targeting of these through systematic training for wrestling is justified.

Balance is defined as the ability of the centre of the body to remain stable with minimal movement [29]. A balanced state is achieved through the combination of several mechanisms such as muscle coordination and body sensory organisation which are two important components controlled by the central nervous system [11]. Two types of balance, static and dynamic, are mentioned in the literature and various study protocols have been used to assess these. The standing stork test (SST) and the Y-balance Test (YB) are considered the most popular assessments of static and dynamic balance [23] but despite this, there has been minimal analysis of how balance, as measured by these functional tests, relates to sport-specific actions such as hopping and jumping. Booysen et al. [3] demonstrated a significant corelation between YB and countermovement jump (CMJ) in university (n = 27, mean age = 20.7 ± 1.84 years; r= 0.4, p= 0.004) and professional athletes (n = 23, mean age = 23.0 ± 3.08 years; r=0.56, p=0.006). Author's showed moderate association between vertical jumping ability and dynamic balance when using the non-dominant leg. Johnson (2011) [16] observed difference between power-trained and endurance athletes in response to an external perturbations in a bilateral stance. Furthermore, significant relationship were observed between Balance Error Scoring System score test and standing long jump (r = 0.641) and triple hop (r = 0.520–0.636) performance in 22 elite Turkish athletes [5]. Also, Basar et al., [2] demonstrated a strong correlation (r = 0.65) between static balance with maximum ice-skating speed in high school ice hockey players. In contrast, a non-significant association between dynamic balance performed with dominant leg for stance and countermovement jump height was found in both healthy young and middle-aged adults. Author's concluded that theses neuromuscular capabilities are independant of each other and should be developped simultanuesly in order to prevent injuries [21]. Zemkova et al. (2017) [30]demonstrated no significant relationship between postural perturbation and maximum voluntary isometric contraction, peak force, peak rate of force development and peak power during jumping in young adults, the authors concluding that the composition of postural stimuli strongly influenced compensatory response effects on muscle power. Improvement in postural control, jumping height and rate of force development were observed after 4-week balance-training program integrated into high school physical education lessons [9]. Author's also stated that postural instability was a result of a significant impairments in force, power, movement velocity, and range of motion. Consequently, better scores in balance performance was associated with strength performance and this could positively impact trunk stability as well as rate of force development [10], which could, in turn, influence dynamic activities such as jumping and hopping.

For the above reasons, it is important to consider jumping and balance performance together in athletes; however, to our knowledge, no study charachterises the relationship between jumping technique and static and dynamic balance. In light of the points made, this study aims to determine the association between reactive strength, jumping performance and static and dynamic balance parameters in young elite wrestlers.

MATERIAL AND METHOD

Subjects

Descriptive data for the participants can be seen in Table 1. Fourteen high level elite male wrestlers from

Table 1. Descriptive statistics and Reliability of the applied tests for group (n=14)

Variables	M±SD	ICC (95% IC)	SEM
Age (yrs)	17.82±4.60	-	-
Body mass (Kg)	69.49±14.21	-	-
Height (cm)	162.9 ±4.10	-	-
IMC (Kg.m^{-2})	22.79±4.16	-	-
Leg length (cm)	98.71±10.33	-	-
CMJ (cm)	32.46±4.93	0.86 (0.55-0.95)	1.84
DJ (cm)	187.9±59.23	0.93 (0.77-0.97)	4.1
RSI (mm ms^{-1})	1.02±0.24	0.84 (0.50-0.95)	0.09
FJT (m)	10.57±0.53	0.83 (0.47-0.95)	0.21
SLJ (cm)	187.9±59.23	0.95 (0.85-0.98)	2.06
CMJ-DL (cm)	13.1±2.95	0.88 (0.61-0.96)	1.00
DJ-DL (cm)	186.0±22.36	0.90 (0.68-097)	0.06
RSI-DL (mm ms^{-1})	3.61±2.17	0.95 (0.88-0.98)	0.43
SLJ-DL (cm)	186.0±22.36	0.81 (0.39-0.94)	1.02

CMJ – countermovement jump; DJ- drop jump; RSI- strength reactive index; FJT- five jump test; SLJ – standing lateral jump; CMJ-DL – countermovement jump with dominant leg; DJ-DL- drop jump with dominant leg; RSI-DL – strength reactive index with dominant leg; SLJ-DL- standing lateral jump with dominant leg; SEM – Standart Error of Estimate; ICC – intra-class coefficient; CI – confidence interval.

the national team of Tunisia and participated in an Olympic competition (mean age: 17.8±4.6 [years]; body mass: 69.5 ± 14.2 [kg]; body mass index [BMI]: 22.8 ± 4.2 [kg · m^{-2}]; Height: 162.9 ± 4.1 [cm]; Leg length: 98.7 ± 10.3 [cm]), volunteered to participate in the study. Participants had a mean training experience of 5 ± 3.79 years and engaged in at least five training sessions and one competition per week. None had been exposed to balance/perturbation training prior to this study. Testing was performed during the pre-season during March and April. The study was conducted according to the Declaration of Helsinki, and all athletes received a clear explanation of the study, including the risks and benefits of participation; written informed consent was obtained from their parents/responsible adults prior to testing, and the athletes themselves agreed to participate in the study.

DESIGN AND PROCEDURES

In addition to body mass (in kg), body height (in cm) and the body mass index (BMI), the testing in this study included indices of static and dynamic balance testing, power testing and reactive strength testing. The testing was done in an indoor center of wrestling. One week before the commencement of the study, all the subjects participated in an orientation session to become familiar with the testing procedures.

With a Static balance protocol (SST) [13] subject stood on the dominant leg with his opposite foot against the inside of the supporting knee with both hands on the hips. Then he raised the heel of his foot from the floor and attempted to maintain balance control for as long as possible. The trial ended if the subject either moved his hands from his hips, the ball of the dominant foot moved from its original position, or if the heel touched the floor. This test was carried out with eyes opened as well as with eyes closed and was timed (seconds) using a stop-watch. The recorded score was the best of three attempts.

With the YB test, and for each trial, subjects placed their hands on their hips and began in a unilateral stance with the most distal aspect of their great toe behind the line on the centre of tape. Distances were then recorded by pushing the target reach indicator in the 3 directions and trials were performed on dominant leg. Throughout, subjects were required to keep the heel of the non-reach leg on the testing platform, maintain balance in a single leg stance, and return the reach foot back to the start prior to attempting the next direction. Also, no visible kicking of the target reach indicator was permitted. Maximal reach distances were recorded to the nearest 0.5 cm marker on the Y-balance kit. Balance performance was calculated as the YBT composite score (MADX [%]), obtained by dividing the sum of the maximal reached distances in the three directions by three times the length of the lower limb (LL; measured from the most distal end of the anterior superior iliac spine to the most distal end of the medial malleolus of each limb), then multiplied by 100: MADX %={[(A + PM + PL)/(LL × 3)] × 100}. [22].

Participants also performed vertical jumps: unilateral on the dominant leg (CMJ-DL) and bilateral CMJ. They were instructed to jump as high as possible and verbal encouragement was provided before each trial. All vertical jump tests were performed using an Ergojump system (ErgojumpP apparatus; Globus Italia, Codogne, Italy), which recorded jump height, with a passive rest of 1 min between each repetitions and 3 min between each test.

This five jump Test (FJT) test consisted of five consecutive unilateral strides from the starting position with a leg of the participant's choice. Each stride alternated between legs and the test culminated with a bilateral landing. Performance on the test was measured with a tape measure from the front edge of the subject's feet in the start position to the rear edge of the feet in the finishing position. Test-retest assessment demonstrated high reliability for elites athletes (TEM = 2.3%, ICC = 0.94) [26].

For the standing lateral jump (SLJ) and standing lateral jump on the dominant leg (SLJ-DL), each participant began by standing, either bilaterally (SLJ) or unilaterally on their dominant leg (SLJ-DL), with the foot at the starting line and hands on the hips. Each participant was instructed to sink to a self-selected depth and to jump laterally to the inside as far as possible, landing on two feet for the bilateral jump (SLJ) and one foot for the unilateral jump (SLJ-DL). The distance jumped was measured to the nearest 0.01 m with a tape measure [19].

For strength reactive index (RSI), each participant performed two maximal effort drop jumps (DJ) from box heights of 30 cm with approximately 30 seconds of rest between each trial. RSI (mm/ms) was determined by dividing jump height by contact time [6]. All DJ trials were undertaken bilaterally and unilaterally on

the dominant leg (DJ-DL) and were supervised by a certified training practitioner.

STATISTICAL ANALYSIS

All data were verified for normal distribution using the Kolmogorov-Smirnov test and were presented as means and standard deviations (SD). Test retest reliability for the variables was computed using intraclass correlation coefficients. A paired sample t-test was used to determine any significant differences between the scores recorded during the two test trials. The SEM was estimated with the formula: SEM = SDd/√2 [28]. The relationship between measures of balance and muscle power was analysed using Pearson's product–moment correlation coefficient. Associations are reported by their correlation coefficient (r value), level of significance (p value), and the amount of variance explained (r^2-value). Values of r ≥ 0., r ≥ 0. and r ≥ 0.50 correspond to small, medium and large correlations respectively [28]. Further, multiple linear stepwise multiple regression models were calculated to determine the most robust predictors of balance. Coefficients of determination ($R^2 \times 100$) were used to interpret the meaningfulness of the relationships [27]. Analyses were performed using SPSS software statistical package (SPSS Inc., Chicago, IL, version. 18.0), and statistical significance was set at $p<0.05$.

RESULTS

Reliability of all measures

Intraclass correlation coefficients indicated good reliability for all tests. (range: 0.81 to 0.95). Relationships between measures of balance performance and muscle power components.

Associations between the SST, RSI and jump performances are presented in Table 2. Significant positive correlations were observed between the SST and CMJ (r-range: 0.41 to 0.63; $p<0.005$) as well as CMJ-DL (r-range: 0.58 to 0.64; $p<0.005$). Significant positive correlations were observed between static balance and FJT (r-range: 0.55; $p<0.005$), and SLJ and SLJ-DL (r-range: 0.41 to 0.58; $p<0.005$) [23]. SST and unilateral RSI (r:-0.26; $p<0.005$). The composite score of the YB test showed no correlation with DJ or DJ-DL (r = range -0.26 to 0.36; $p<0.05$). However, there were moderate to large positive correlations with CMJ-DL and CMJ (r-range: 0.54 to 0.71; $p<0.005$) as well as with FJT (r: 0.50; $p<0.005$) and SLJ-DL (r: 0.71; $p<0.005$).

Multiple regressions analysis

The multiple regression analysis revealed that RSI and jump components explained 97% ($F=2.93$; $p<0.02$) of the variance of balance performance [23]. Furthermore, the single best predictor of SST was the CMJ-DL test with an explained variance of 47% ($F=9.28$; $p<0.005$). For the dynamic balance, 50% of the explained variance in YB score was determined by SLJ-DL ($F=11.87$; $p<0.001$).

DISCUSSION

The main findings demonstrate a possible relationship between static and dynamic balance and muscle power performance. Medium to large correlations between all measures of static and dynamic balance with RSI and muscle power was observed. The unilateral CMJ was considered as a power indicator of static balance (SST) with the highest proportion of variance explained. In addition, With regard to dynamic balance, the unilateral standing long jump was demostrated the

Table 2. Pearson's moment correlation coefficients between studied variables

Variable	SST (s)			SYB (%)		
	r	p	95% CI	r	p	95% CI
CMJ (cm)	0.63	0.01	0.12 to 0.87	0.54	0.05	-0.01 to 0.84
DJ (cm)	0.41	0.15	-0.17 to 0.78	0.36	0.21	-0.23 to 0.76
RSI (mm ms^{-1})	-0.62	0.02	-0.87 to -0.10	-0.53	0.06	-0.84 to 0.01
FJT (m)	0.55	0.05	0.00 to 0.84	0.50	0.07	-0.06 to 0.82
SLJ (cm)	0.41	0.15	-0.17 to 0.78	0.36	0.21	-0.23 to 0.76
CMJ-DL (cm)	0.64	0.01	0.14 to 0.88	0.61	0.02	0.10 to 0.87
DJ-DL (cm)	0.58	0.03	0.04 to 0.85	0.71	0.00	0.26 to 0.90
RSI-DL (mm ms^{-1})	-0.26	0.38	-0.71 to 0.33	-0.36	0.22	-0.76 to 0.23
SLJ-DL (cm)	0.58	0.03	0.04 to 0.85	0.71	0.00	0.26 to 0.90

best predictor with a highest proportion of variance. Importantly, the CMJ-DL was the single best power predictor with the highest proportion of variance to explain SST.

Previous research examining possible association between muscle power and balance performance have been published [13, 5, 21, 12]. Erkmen et al., (2010) [5]demonstrated significant correlations between triple hop (r = 0.713), standing broad jump (r =0.617), vertical jump (r = 0.596) and Balance Error Scoring System test in elite soccer player. In addition, static balance was correlated with drop jump height (r= -0.44; p<0.002) and power (r= -0.29, p= 0.04) but not with CMJ height with 46 male athletes [7]. Regarding to horizontal jumping abilities, the standing long jump was demonstrated as a best indicator of the standing stork test with the highest proportion of variance (12–47%) in youth athletes [13]. The research appeared so far are in accordance to those obtained in the current study demonstrating significant correlations between static balance and five jump test. However, they contrast with the study of Hamilton (2008) [12] who reported no correlations between soccer players' balance performance, triple jump, and vertical jump distances. Otherwise, the unilateral CMJ as complex movement relies on better coordination and powerful contraction of the knee and hip extensor muscles in order to maximise vertical height [8; 18] wich can enhance performance in static balance by providing an adequate extensor moment. The extensor moment is responsable for controling balance in the static phase during the standing stork test execution and assist in mantaining an individual's centre of mass inside the base of support to finaly controlling postural sway.

Similarly, it has previosuly been shown that elite wrestlers with greater leg power demonstrated better dynamic balance performance. Simek et al. (2008), Granacher et al. (2010) and Myer et al. (2006) [25, 9, 22] all found that balance training increased jump height and that jump training improved balance performance. Therefore, it may be possible to conclude that there exists a meaningful causative relationship between jumping ability and balance. Boosyne et al., (2015) [3] demonstrated that the normalised reach score in the YB test using the non-dominant leg for stance correlated with eccentric strength (r = 0.56, P = 0.006) and jumping ability (r = 0.52, P < 0.0002) of the non-dominant leg knee extensors in professional athletes. The authors concluded that the ability to generate power correlates moderately with dynamic balance on the non-dominant leg in male footballers. It would therefore be expected that there are other relevant factors which could influence dynamic balance, such as jumping technique or neuromuscular coordination.

The relationship between lateral jump performance and dynamic balance could be explained by the similarities in the muscles recruited during the SLJ and YB tests. During the YB test high levels of muscle activation from the knee extensors and hip extensors are necessary [4; 19] to resist the large flexion moments (or torques) as the participant during the reaches distance [4]. Performing certain technical skills or activities with substantial lateral displacement in specific wrestling training, athletes needs to develop greater leg extensor power and must consequently maintain a stable position during these tasks by better controling their body position or center of gravity inside their base of support. Further, whilst being jostled by opponents, wrestlers must adopt a strategies to control the moments or torque demands with maintaining their centre of mass inside the base of support to maintain balance while moving in the lateral plane. Furthermore, the high demand of muscle power during dynamic activities that have been observed in wrestling training and competition [23] may emphasise the need for prescription of a specific bilateral and unilateral plyometric training in order to improve balance.

Our findings are evident of an association between jumping capacity (i.e. CMJ) and reactive strength (i.e. RSI) and balance performance directly supporting the results of previous studies in which investigators identified those qualities as being significantly related to static and dynamic balance [13; 3; 20]. This is mostly explained by the similar physiological underpinnings of jumping, RSI and balance with all three qualities requiring the intensive involvement of the fast twitch muscle fibers [14]. Anderson and Behm, (2005) [1] indicated that power and resistance training can also improve the coordination of synergistic and antagonist muscle activity leading to improved stability. Indeed, RSI is representative of an individual's ability to efficiently switch between eccentric and concentric muscle actions (i.e., to perform plyometric activities). It is known that efficient use of the stretch shortening cycle results in more powerful muscle actions than purely concentric action [17]. The rationale for this finding might be attributed to the high level of power output ine the vertical and lateral plane modifying the center of gravity

providing novel challenges to the equilibrium for high level elite wrestlers with which to optimize their strategies to maintain static and dynamic balance, respectively. Since our correlation analysis demonstrates that the two variables vary in the same direction, improved repeated and single jumping abilities in the vertical and lateral planes may enahance static and dynamic balance control.

There are some limitations to this work. The study design was cross sectional and thus causality cannot be assumed. Consequently, longitudinal or intervention studies are waranted. Furthermore, a kinematic assessment of knee joint angles was not conducted. In conclusion, these results suggest that there can be a transfer of effects from balance training to activities involving dynamic lateral movements and vice versa. Consequently, repeated jump activities and lateral plyometric training techniques should be incorporated into the training programmes of elite wrestlers to improve balance capability. Powerful muscle contractions may assist in providing an adequate extensor moment and assist wrestlers in returning to a more stable position whilst balancing. However, numerous other neuromuscular factors contribute to a stable, unilateral stance in male wrestlers. Further studies should quantify additional performance variables related to dynamic balance in wrestlers and should include female participants due to the high number of non-contact injuries to the support leg in that population. Also, controlled intervention studies may further enhance understanding of the factors that commonly contribute to enhanced static and dynamic performance.

In conclusion, fitness programs aimed at improving balance performance in youth wrestlers should incorporate elements of vertical and horizontal movement. This is based on the relationship between power expression capability and balance in this type of athlete. Additionally, special attention should be paid to lateral plyometric training since this quality is related to dynamic balance. Enhanced balance capabilities should prove beneficial to elites wrestlers as they must coordinate technical explosive action being jostled by opponents.

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Original Article

Effects Of Upper Body Strength Training Using Elastic Band On Shoulder Isokinetic Strength In Elite Rowers

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ABSTRACT

Imbalance and weakness in shoulder rotator muscles has been considered a risk factor for injuries in athletes. The purpose of this study was to investigate the effects of strength training on external and internal shoulder rotator muscle strength using elastic band compared with habitual training using weight machines in elite rowers. Fourteen elite rowers (M ± SD: age 18±2 years, height 179.4±4.6 cm, weight 70.5±6.3 kg, and Body fat 10.7±2.5 %) were tested for concentric internal (IR) and external rotation (ER) peak torque (PT), and acceleration time (ACC) before and after 12 weeks of strength training using habitual weight machines or elastic band. The results demonstrated that the 2 training modalities significantly improved PT and only elastic band training decreases ACC for both IR and ER in the right and left shoulder (all $p < 0.001$). Between-group differences in change revealed that training using weight machines was significantly superior (39 to 49%; all $P < 0.01$; large effects) for PT improvement. However, elastic band training was superior (40 to 100%; $P < 0.02$; large effects) on decreasing ACC. Training using weight machines was superior for improving shoulder PT compared with elastic band. However, the latter training was more effective in reducing ACC and therefore is recommended especially in injury preventive and rehabilitation-based strength training.

Keywords: Rehabilitation, peak torque, acceleration time, isokinetic, performance

INTRODUCTION

Rowing is a modern Olympic sport that requires muscle strength, endurance and power. Rowing competitors typically race over a 2000-m course and should generate and maintain a relatively high power output for the duration of a competitive race (Attenborough et al., 2012). The most frequently injuries associated with rowing are injuries of the lower back, shoulders, knees, and wrists (Lawton et al., 2011). Chronic overuse syndrome, a low rowing technique, a poor flexibility and strength deficits were considered as the most common mechanism associated with pain and injury in rowers.

In order to enhance muscular performance and prevent injuries and pain associated with rowing, various strength training should be incorporated into the physical conditioning plan (Lawton et al., 2011). Recently, it has been demonstrated that upper body strength including bench pull and arm pulling were the best predictors of stroke power and race in rowers (Lawton et al., 2013). Furthermore, strengthening the external rotators muscles in the shoulder can be an important component in the prevention of rotator cuff injuries. Currently, the effectiveness of upper body strength training on measures of rotator cuff strength and power in rowers is not known.

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Strength training involving elastic resistance devices or bands has received attention within the recent years (Anderson et al., 2008; Wallace et al., 2006). Firstly, this method was more affordable and more accessible (i.e., can be performed anywhere) compared with weight machines. Secondly, it can allow for a larger range of motion with both concentric and eccentric muscle contractions (Patterson et al., 2001). It has been shown that power was acutely increased in the back squat exercise with the addition of elastic tension (Wallace et al., 2006). Furthermore, the combination of elastic band and free-weight exercise during the back squat can significantly increase rate of force development (Stevenson et al., 2010). Moreover, Treiber et al. (1998) demonstrated that the combination of elastic and free-weight exercise provided beneficial effects on strength and functional performance in college-level tennis players. The authors showed that experimental group experienced significant gains in both internal and external rotation torque of the shoulder. Thus, strength training using elastic band can permit an important gain in strength and power. However, little is known about the specific effects of such training especially when applied for upper body.

Thus, we aimed in the present study to investigate the effects of 12 weeks of upper body strength training using either elastic band or weight machines on shoulder isokinetic peak torque and acceleration time in elite rowers.

METHODS

The present study aimed to address the question regarding the effectiveness of upper-body strength training using elastic band on maximal peak torque and ACC in elite rowers. To achieve this, 14 elite rowers recruited from the national Tunisian team and were randomly allocated to 2 groups. One group performed habitual strength training using weight machines (WMG) and the other group used elastic band (EBT).

Participants

Fourteen elite male rowers (M ± SD: Age 18±2 years, height 179.4±4.6 cm, weight 70.5±6.3 kg, and Body fat 10.7±2.5 %) were recruited to participate in the study. Rowers were elite athletes competing in national and international competitions. Participants should be healthy and without any injuries at least during the last 3 months before the experimentation and all athletes completed the study and none of them participated in less than 75% of the training sessions. This study was approved by the committee ethic of research center. All athletes took part voluntarily in the study after signing an informed consent and all the procedures conformed to the declaration of Helsinki.

Design and procedure

After orientation and testing, athletes were randomly divided into two groups: the habitual strength training using weight machines WMT (n = 7) and the experimental group training using elastic band EBT (n = 7). All athletes performed progressive strength training over 12-weeks with 2 sessions per week. Each training session begin with an upper body warm-up (range of motion).The WMT group continued their habitual training using dumbbell. The exercise program was performed in 7-8 sets of 5-7 repetitions with intensities between 60 and 90% of maximal strength capacities. Forty eight hours of recovery were allowed between each two training sessions. The strength training exercise targeted upper body musculature included rotator cuff, deltoid muscle and trapezius. See table 1

The experimental group replaced their usual strength training by a progressive strength training using the Thera-band devices. Athletes followed the same number of session per week and targeting the same muscle strengthened during WMT. Resistance during EBT controlled using the different colors offered by the device (from yellow to blue). See table 1.

Measures

Athletes underwent 2 assessments, one before (Pre) and one after (Post) the intervention period. All participants performed both testing in a controlled environment and within standard conditions with an experimenter physiotherapist to ensure consistency of athletes positioning and instructions (Figure 1). Athletes were assessed for internal and external isokinetic strength of the right and left shoulder using an isokinetic dynamometry (Cybex NORM; Henley Healthcare,

Table 1: The two training characteristics

Variable	WMT	EBT
Repetition	5-7	6-8
Sets	8-10	12-14
Between sets recovery	7 min	5 min
Between session recovery	48 hours	48 hours

Cybex International, Inc., Medway, MA). Measures of peak torque (PT) and acceleration time (ACC) were evaluated at angular velocity of 60°/s. After warming-up, the athlete sat and stabilized on the dynamometer and secured to both the dynamometer and the corresponding chair according to manufacturer's specifications to minimize extraneous movements. Testing performed at the scapular plan with 25-40° and the elbow was supported in 90°of flexion of forearm.

Figure 1: Isokinetic testing set-up for internal and external rotators muscle of the shoulder with the Cybex dynamometer.

Table 2: Baseline participants' characteristics

Variable	Mean±SD	
	EBT group	WMT group
Age (years)	18.7±4.3	18±2.08
Height (cm)	178.8±5.5	180.1±3.6
Mass (kg)	70.4±6.2	70.6±7.5
% body fat	10.4±3.2	11.1±2.2

Statistical analysis

Results are presented as means (standard deviation). Relative change (within or between groups) also are expressed with 90% CI. Data normality was checked using the Shapiro-Wilk test. Firstly, analysis was performed using a 2-factor repeated measures analysis of variance with 1 between factor (WMT vs. EBT) and 1 within factor (pre-training vs. post-training). Then, between groups differences in changes were analyzed using an impaired t test. Practical significance was assessed by calculating the Cohen's d effect size (Cohen, 1992). Effect sizes (ES) < 0.2, 0.2–0.6, 0.6–1.2, 1.2–2.0, 2.0–4.0 and 2.0–4.0, were considered as trivial, small, moderate, large and very large, respectively. Data analysis was performed using the Statistical Package (version 16.0 for Windows, SPSS Inc., Chicago, IL, USA).

RESULTS

At baseline, the two groups exhibited similar anthropometric indices. Furthermore, no significant differences in all isokinetic indices (peak torque and acceleration time) between the two groups (p>0.05) Table 2.

Table 3 : Peak torque and acceleration time evaluation at 60°/s for the right shoulder before (pre) and after (post) strength training using weight machines or elastic bands. The results are presented as mean±SD

variable	Training	WMT			EBT		
		Pre	Post	Change %±90% CL	pre	Post	Change %±90% CL
Peak torque (60°/s)	E R	29.8±6	33.8±5#	13.4±1.5	31.3±4.3	33.1±4.3#	5.7±1.4
	I R	71±10.1	75.6±8.7#	6.3±0.9	50.3±12.9#	52.28±12.9#	3.9±0.4
Acc time (60°/s)	E R	0.08±0.03	0.09±0.03	12.5±0.01	0.10±0.04	0.07±0.02*	-30±0.01
	I R	0.06±0.02	0.07±0.01	16.6±0.03	0.09±0.05	0.05±0.02*	-44.4±0.03

ACC time=Acceleration time, CL=Confidence limits, WMT=Weight machine training, EBT=elastic band training

Table 4: Peak torque and acceleration time evaluation at 60°/s for the left shoulder before (pre) and after (post) strength training using weight machines or elastic bands. The results are presented as mean±SD

variable	Training	WMT			EBT		
		Pre	Post	Change %±90 %CL	pre	Post	Change %± 90%CL
Peak torque (60°/s)	E R	30±6.1	34.7±5.1#	15.7±1	25.43±3.60	28.28±3.60#	11.2±0.61
	I R	70.4±19.2	75.4±18.9#	7±1.8	48.8±7.4#	51.6±7.8#	5.5±1.7
ACC time (60°/s)	E R	0.05±0.03	0.07±0.03*	20±0.005	0.08±0.02	0.07±0.02*	-25±0.01
	I R	0.03±0.02	0.05±0.02	66.6±0.02	0.08±0.05	0.06±0.03*	-37.5±0.01

ACC time = Acceleration time, CL = Confidence limits, WMT = Weight machine training, EBT = elastic band training

Percentage of changes and P values for each group are expressed with 90% CL and presented in table 3 and table 4. For both the left and the right shoulder, and for internal and external rotation, the two group significantly (all $p<0.001$) increased PT. Percentage of changes ranged from 5 to 12%. For ACC-time no significant change noted in the left shoulder after WMT at (all $P > 0.05$). However, there was a significant decrease in ACC (all $p<0.04$) after training EBT. The same results found when assessing the right shoulder.

Results from the between-group analysis revealed that for PT for both external and internal rotation, WMT was more efficacious ($P<0.01$, large effects) than EBT. However, EBT was more effective (large to very large effects) for decreasing ACC for both internal and external rotation.

DISCUSSION

The present study is the first to compare the effects of strength training using weight machines versus elastic Band tubing on the strength of upper body musculature for elite rowers. The results showed different and specific adaptations to both training regimens. Indeed, improvements in PT were observed in both groups but the improvement was superior after WMT. Moreover, only EBT decreased ACC at the different angular velocity used.

To date, only fewer studies examined the effects of strength training using elastic tubing on shoulder strength in athletes (Page et al., 1993; Treiber et al., 1998) despite that is often recommended to use this type of training especially in rehabilitation purposes. The aforementioned studies found that conducting a 4 to 6-weeks intervention using elastic bands resulted in significant increase in shoulder external and internal rotation PT (Page et al., 1993; Treiber et al., 1998). The results of the present study revealed that shoulder strength significantly improved after both WMT and EBT training, with the WMT training had greater improvement. These results are in line with those found by Treiber et al. (1998) who showed that resistance training using elastic band tubing and lightweight dumbbells may have beneficial effects on strength and functional performance in college-level tennis players. Furthermore, the present results are in conjunction with the results of Page et al. (1993). The latter authors found that a 6-week (3 days per week) training using elastic band elastic bands caused a significant 19.6% increase in eccentric external rotation torque in a group of baseball pitchers. It seems that WMT provide a high quality of resistance and strength stimulation compared with EBT and thus, a high level of neuromuscular adaptations and this may explain in partly the large gain observed in peak torque after WMT compared with EBT.

The present study sought also to determine the effectiveness of conducting an EBT program instead of WMT. The results showed a significant improvement in peak torque compared with WMT. To date, few studies examined the effects of EBT on shoulder musculature strength. These results supports recent studies showing that strength training using elastic bands either for lower or upper body may induce sufficient levels of muscle activity to induce a substantial strength gain (Thorborg et al., 2015). For example, It has been show that EBT for 6 weeks was effective to improve isokinetic shoulder muscular power and ball speed for young female handball players (Mascarin et al., 2016) and only 6 weeks of hip-flexor strength training using elastic bands as external loading improves hip-flexor muscle strength (Thorborg et al., 2015).

Importantly, the present study did evaluate ACC during external and internal rotation movement to investigate any possible effects from the 2 training types, and the results showed that only training using elastic tubing has the potential to decrease ACC of shoulder rotation at. It has been suggested that ACC during isokinetic testing represents a useful dynamic variable for identifying any delay in neuromuscular response (van Cingel et al., 2006). The same authors demonstrated that ACC of the evertor muscles at different angular velocities was significantly longer in subjects suffering from ankle instability compared with control subjects. Moreover, it has been suggested that a delay in muscle action and ACC of a joint may be related partly to motor nerve conduction velocity of the fibularis nerve (van Cingel et al., 2006). Thus, EBT may represent an efficient stimulus for reducing ACC during strength-based exercises. Although the mechanism behind the positive effects observed after EBT remain unclear because few studies to date investigated ACC during isokinetic testing, the advantages of EBT may be mechanically. Indeed, using elastic bands permits to the muscle to contract throughout the range of motion and this due to length–tension relationship that resulted in

increases of muscle activation through the concentric portion of the movement (Kraemer et al., 2001; Wallace et al., 2006). In conclusion, the present results showed that both EBT and WMT significantly enhance right and left shoulder muscles strength in elite rowers and only EBT was effective in reducing ACC during the isokinetic testing. Thus, the simple strengthening program using an elastic band for resistance seems ideal for prevention and rehabilitation of shoulder muscles in addition to the strength gain. Thus, practitioners and physiotherapist are recommended to introduce EBT sessions during normal training session in athletes for prevention purposes or for rehabilitation process. Future researches are needed to explore other functional muscles and the effects of different strength training regimen on strength indices and ACC parameter in athletes.

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Original Article

The Level of Positivity among the Administrators of Palestinian Sports Clubs

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ABSTRACT

Objectives: The aims of this study were to investigate the level of positivity among the administrators of Palestinian sports clubs, in addition to determine differences according to Administrative courses & Administrative position variables. **Method and Procedures:** To achieve this, the study sample consisted of (452) Administrative member from (113) sports clubs in the West Bank districts & representing (30%) of the number of sports clubs in each district. To collect data, the authors applied the positivity Scale (PS; Qadoumi, 2018). The PS requires participants to respond to fifteen items designed to assess aspects of positivity dimensions (optimism, quality of life & happiness) with the Administrative member role on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). To address data, Cronbach's alpha coefficients were computed to determine the reliability, means, standard deviation, percentages, Independent samples t-test, One Way ANOVA and Scheffe's post-hoc test were used. **Results:** the results of the study showed the level of positivity & dimensions among the administrators of Palestinian sports clubs were high, where the percentage of response for the total score, optimism, quality of life & happiness were respectively (78%, 79.80%, 78.60, 75.60%). There were significant differences in positivity among the administrators of Palestinian sports clubs according to Administrative courses variable in favor of participate members. Also,there were significant differences in positivity among the administrators of Palestinian sports clubs according to administrative position variable in favor of club president mean.

Keywords: Positivity, optimism, quality of life, happiness, administrative courses

INTRODUCTION

Positive psychology is a modern stream, which interested in studying every single positive thing, as well as, positive psychology is interested in studying human virtues and strength inside the human soul to immunization the individual. (Sligman et al., 2009).Moreover, (Al-asmi, 2015) referred to positive psychology as a great movement in psychology according to the positive aspects of positive human forces and strength can face difficulty and challenges meeting the individual in his daily life. Positivity is meaning that the individuals have a positive direction or positive evaluation towards the self, the future and the previous experience. Also, (Leak & Leak, 2006) defined it as the study of the positive human forces that contribute to help individuals in their psychological, social and educational aspects, as well, discovering and developing the capacities and qualities, which will contribute to help them facing difficulty and challenges they meet every single day, as well as develop their sense of happiness or well-being and the desire to live effectively.Bakir& Kangalgil (2017: 98) defined it as the main determinant of personal well-being and it can be expressed by saying that it's a tendency to evaluate all aspects of life that are already good.

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The most important thing that making positivity special is positivity's many topics and fields such as: friendship, love, creativity, happiness, success, spirituality, optimism (Seligman, 1999) Self-esteem (André & Lelord, 2008), adaptation, social support (Katherine, 2014), satisfaction, hope (Elsayd,2016).

In the current study, Qadoumi's scale for positive personality was used (Qadoumi, 2018) which included three dimensions: optimism, happiness, and quality of life.Optimism is one of the most important factors in positive psychology (Marín et al., 2013). Optimism is defined as an illustrative method that attributes positive events to personality and enduring reasons during interpreting negative events as external, temporary and circumstantial events (Seligman, 2011). Aspinwall &Tedeschi (2010) defined it as a trait that reflects the individual's positive Expectations about events and predicts how he will cope with stressful life events. Where the researchers are caring about optimism because it's related to the individual's mental and physical health, the results of optimism studies revealed a positive correlation between optimism and mental health (Achat et al.,2000; Gruber et al.,2009) and happiness (Chen et al., 2009) Self-acceptance, positive relationships with others, personal growth, independence and positive emotion. (Marshall et al., 1992). Moreover, studies have confirmed that optimism is predictive of the better existence of the individual (Turkum, 2005) And about the quality of life, it's a multidimensional concept, and we can define it as a personal self-satisfaction and being satisfied with the physical, emotional, mental, social and behavioral components of performance (Ravens et al, 2014; Jozefiak et al, 2010).

Dhatt & Rishi (2015) points out that the concept of optimism is generally used to indicate a positive direction and the good things will happen in an independent way, which means that individual's ability has nothing to do with.

The concept of quality of life broadly covers how an individual measure the validity of multiple aspects of their lives.

These evaluations include individual's emotional reactions towards life events, behavior, and the sense of satisfaction with life job satisfaction, and personal relationships (Diener, Suh, Lucas, & Smith, 1999).

Happiness is a modern concept that have been linked to positive psychology's studies, and it's considered as one of the fundamental variables of personality, and a basic goal in every human life, philosophers, thinkers, scientists, artists and others seeks to achieved it, and the individual feels satisfied, Joy, enjoyment, self-realization, optimism as soon as he achieved it, so, it leads to positive orientation towards life (Al-Shawi &Salmi, 2017).

(Gooda,2007: 701) defined it as a positive an emotional and mental state, the individual can experience it by himself, it's including satisfaction, pleasure, optimism, hope, and a sense of ability to influence events positively.

The sports clubs are a recreational sports institution that aims to contribute positively to the sport and social development of the members of the society within the framework of the needs and wishes of its members, Which leads to the realization of the philosophy of the country, which (Abd Al-hameed, 1996) defined it as a civil association organized by a group of individuals with their own will, without direct intervention from countries, and it aims to invest its members leisure through physical activity and sports as a major activity and social activity as a sub-activity.

Researchers think that the success of sports clubs depends on the integrative role between the members of clubs management general authority and the sports teams. Offering a comfortable psychological environment is a must for all.

At the end, studying positivity is one of the most important topics which linked to the management of sports institutions, which have not received much attention from the workers in the field of sports, in addition to the lack of studies and scientific literature in this field, and when we face a lack of information in some field, so, we have to research and study.As the current study aimed to determine the level of positivity and differences according to the variables of administrative courses, and the administrative position of members of the administrative board of the Palestinian sports clubs.

LITERATURE REVIEWS

A study of Al-Dababi et al. (2019) which aimed to investigate the relationship between optimism-based

on life orientation test and self-efficacy and happiness for students of Jordan University of Science and Technology – JUST. Life Orientation Test (LOT) of (Carver, Scheir & Bridges, 1994) Self-Efficacy Test of (Schwarzer & Jerusalem, 1995) and Oxford Happiness Inventory are employed to achieve the purpose of the study. An available 358 students have comprised the sample of the study. The results of the study show a statistically significant correlation between optimism and self-efficacy; optimism correlates with happiness as well. No statistically significant difference is found between optimism and sex. On the other hand, the results indicate that optimism varies significantly with students' major. Also, the results show a significant difference existing between self-efficacy and students' sex in favor of males; significant difference existed in students' happiness attributed to students' sex and college in favor of females and colleges of sciences (basic sciences).

A study of Qadoumi (2018) which aimed to identify the level of optimism and quality of life And happiness in students of science, police, military and security At the University of Independence in Palestine, in addition to determining the relationship Between optimism, quality of life and happiness, the development of the index to measure optimism and qualityOf Life and happiness combined, and to achieve this study was conducted on a sample (200) students. The study found that the overall level of: optimism was high, Quality of life was very high, happiness was high, a positive relationship A statistically significant function between optimism, quality of life and happiness, positivity scale was developed to measure Optimism, quality of life and happiness combined, and reach validity Quality of Life as Mediator between Optimism and Happiness.

A Study of Medvedev & Landhuis (2018) which aimed to Exploring constructs of well-being, happiness and quality of life. The study sample consisted of (180) University students completed widely used wellbeing measures including the Oxford Happiness Questionnaire (OHQ), the World Health Organization Quality of Life Questionnaire, the Satisfaction with Life Scale, and the Positive and Negative Affect Scale. Results: All included well-being measures demonstrated high loadings on the global well-being construct that explains about 80% of the variance in the OHQ, the psychological domain of Quality of Life and subjective well-being. The results show high positive correlations between happiness, psychological and health domains of quality of life, life satisfaction, and positive affect. Social and environmental domains of quality of life were poor predictors of happiness and subjective well-being after controlling for psychological quality of life. The level of happiness was very high and the mean of response reached to (4.18).

A study of Lipowski (2012) which aimed at determining the level of optimism and health behavior of athletes, in addition to ascertaining that optimistic athletes do have good health behavior? To achieve this, the study was conducted on a sample of (385) male athletes and (147) females, and they applied the measure of optimism and the measure of health behavior. The study found that the optimism was high in both males and females, in addition to a positive relationship between optimism and healthy behavior among the adolescents.

A study of unuvar, Avsaroglu & Uslu (2012) which aimed at revealing the optimism and the level of satisfaction with the life of the students of tourism and hotel management schools in Turkey. The study sample consisted of (479) students. The results of the study showed a positive relationship between optimism and satisfaction with life. It was also found that the level of optimism and satisfaction with life was average among students. It was also found that females are more optimistic and satisfied with life than males.

METHOD AND PROCEDURES

Study Approach

The descriptive approach has been used because it was suitable for study purposes.

Study Society

The study's society composed of all the members of administrative bodies of the sports clubs in the West Bank provinces, according to the records of the Supreme Council for Palestinian Youth and Sports for the year 2019, there consist of(415) sports clubs.

Study Sample

The study was conducted on a random sample of all members of the administrative bodies of the sports clubs in the West Bank provinces, where consisted of (113) sport clubs, with a total of (452) members, and the clubs that used as a sample from each district were selected by (30%) of the total number of sports clubs.

Study Instrument

The researchers used Qadoumi's scale to measure clubs managers positivity in Palestine. The scale consists of three dimensions: optimism, quality of life, and happiness. Each dimension contains five items, so the scale totally has 15 items, and it requires respond to them on five points likret scale (1-5) degrees, degree (5) means "strongly agree", degree (4) means "agree ", degree (3) means "neutral", degree (2) means "disagree ", degree (1) means " strongly disagree".

Validation and Reliability of the Study Instrument

The researchers applied the positivity scale on an exploratory sample of the members of the administrative bodies of the sports clubs in the West Bank districts consisted of (45) members from outside the sample of the study and the study population. The internal consistency validity was used by extracting person correlation coefficients between items and total score of scale, the range of values were (0.70 - 0.92). It was statistically significant at ($\alpha \leq 0.01$). This indicates that the scale meets what is found to be measured and is suitable for application in the Palestinian environment. It was statistically significant at ($\alpha \leq 0.01$). And that shows that the scale suitable for what is found to be measured, and it can be implemented in the Palestinian environment.

To make sure that the stability of the study instrument, the researcher used the Cronbach's Alpha equation for the internal consistency of the responses of the sample of the exploratory study for each item and for each dimension and for the total score on the positivity scale. The Cronbach's alpha values for the positivity scale dimensions ranged between (94.7-97.1) %, and its value on the scale as a whole (98.2%) These values show that the positivity scale is highly stable, accurate and we can use it in the Palestinian environment.

Statistical Processes

The researchers used the SPSS program to process data by applying Pearson correlation coefficients, Cronbach's alpha equation, Means (M), Standard deviations (SD), Relative weights, independent samples t-test, One Way ANOVA, Scheffe Test.

Viewing the Results of the Study

First: the results related to the first question for the study, which reads

What is The level of positivity among the administrators of Palestinian sports clubs?

To answer the first question for the study, the researchers used the means, standard deviations and the relative weights of of each itemand for each domain, And the total score of the level of positivity among the administrators of the Palestinian sports clubs. and in order to explain the results, relative weights were used as indicated in the study of (Qqdoumi, 2018): more than (80% -very High level of positivity), (from 70% to79.99% -High level of positivity), (From 60% to 69.99% - Average level of positivity), (from 50% to 59.99% - low level of positivity), (less than 50% - very low level of positivity) And the results of the Table 1 shows that.

It clears from the results of the Table 1 that The level of positivity among the administrators of Palestinian sports clubs was high on all dimensions and the overall level as well, where the percentage of response to the overall level of positivity (78 %(and for dimensions (optimism, quality of life & happiness) were respectively (79.80, 78.60, 75,60)%.

Second: the results related to the second question for the study, which reads

Are there statistically significant differences at the level of significance ($\alpha \leq 0.05$) in the level of positivity

Table 1: Means, standard deviations and relative weights for the level of positivity and their dimensions among the administrators of Palestinian sports clubs (N=452)

No.	Positive dimensions	Mean	Standard deviation	%	Response	Rank
1	Optimism	3.99	0.58	79.80	High	1
2	Quality of life	3.93	0.66	78.60	High	2
3	Happiness	3.78	0.73	75.60	High	3
Total level of positivity scale		3.90	0.54	78.00	High	------

*Maximum degree of response (5) degrees. ** No.: Number. *** %: Relative weights.

among the administrators of the Palestinian sports clubs according toadministrative courses variable?

In order to answer the second question for the study, the researchers used independent samples T-test to determine the differences in the level of positivity among the administrators of the Palestinian sports clubsaccording to administrative courses variableand the results of Table 2 show that.

It clears from the results of the Table 2 thatthere were statistically significant differences at the level of significant ($\alpha \leq 0.05$) in the level of positivity among the administrators of the Palestinian sports clubs between the participant mean and the mean of non-participant in favor to participant mean.

Third: the results related to the third question for the study, which reads

Are there statistically significant differences at the level of significance ($\alpha \leq 0.05$) in the level of positivity among the administrators of the Palestinian sports clubs according to administrative position variable?

In order To answer the third question for the study, the researchers usedthe means and standard deviations of the level of the positivity level among the administrators of the Palestinian sports clubs and and one way anova to determine the differences according toadministrative position variable, and the results of Tables 3 and 4 show that.

It clears from the results of the Table 4 that there were statistically significant differences at the level of significant ($\alpha \leq 0.05$) in the level of positivity among the administrators of the Palestinian sports clubs according to administrative position variable, To determine the differences, use the Scheffe Test for post hoc comparison between means, and the results of Table 5 show that.

The results of Table 5 show that the differences in the total level degree of the positivityscale were between the means of the president, vice president, club Secretary and Treasurer of the club in favor to the mean of the club president. Also The differences between the mean of the vice president and treasurer of the club was in favor to the mean of treasurer of the club, while the differences between the mean of club secretary and treasurer of the club as in favor to the mean of treasurer of the club, while the other comparisons were not statistically significant.

DISCUSSION OF STUDY RESULTS

The study aimed to determine the level of positivity and differences according to the variables of administrative courses and the administrative position among the administrators of the Palestinian sports clubs. In the absence of previous studies that related directly to the management of sports clubs, the researchers compared them with other studies similar to the subject and different with the selected samples, Where it was found that the level of positivity scale and all dimensions (optimism, quality of life and happiness) was high Table 1. The researchers attribute the reason to matters related to the nature of sports management of clubs as independent bodies, positions worked by persons who elected democratically, often they are volunteers of prominent personalities, active and socially desirable, or from sports personalities who are retiring, and this in turn reflects them positively and enhances their self-confidence and their awareness of their roles and makes them more optimistic, happy, less tense and anxious and frustrated and pessimistic.

Emphasized by (Abdel-hamid, 1996) that sports clubs are a non-governmental organization composed through a group of individuals with their own will and without the direct intervention from states, aims to invest the vacuum of its members through physical

Table 2: Test results of independent samples T-test to determine the differences in the level of positivity among the administrators of the Palestinian sports clubs according to administrative courses variable (N=452)

Positivity dimensions	Participating (N=290)		Not participating (N=162)		Value (T)	Sig.*
	Mean	Standard deviation	Mean	Standard deviation		
Optimism.	4.09	0.48	3.81	0.69	5.065	*0.001
Quality of life.	4.05	0.59	3.74	0.74	4.867	*0.016
Happiness.	3.83	0.64	3.60	0.85	3.149	*0.000
Total score.	3.99	0.44	3.72	0.65	5.257	*0.001

* The level of significance ($\alpha \leq 0.05$). ** Sig.: significance.

activity and sports as main activity, and social activity as a sub-activity.

The researchers also believe that the success of sports clubs depends mainly on the integrated role between the members of the management of the clubs themselves and the public body and sports teams, There must be a comfortable psychological environment for everyone, and these results are agree with the results of the study (Qadoumi, 2018) Which showed that the level of positivity dimensions of optimism, happiness and quality of life were high, In relation to the level of optimism, the results of the study were agreed with the results of studies (Qadoumi, 2015; Lipowski, 2012; Cindy, 2003), which showed that the level of optimism was high. While differed from the results of the study (unuvar, Avsaroglu & Uslu, 2012) which showed that the level of optimism was average.

Table 3: Means, standard deviations of the positivity level among the administrators of the Palestinian sports clubs according to administrative position variable (N=452)

The dependent variable	Administrative position Variable	(N)	Mean	Standard deviation
Positivity	Club president	113	4.14	0.45
	Vice President of the club	113	3.77	0.42
	Club Secretary	113	3.70	0.66
	Treasurer of the club	113	3.94	0.48

The level of happiness and quality of life varied with the results of the study (Medvedev& Landhuis 2018) Which aimed to explore the structures of well-being, happiness and quality of life among university students where the level of response was very high.

There are also statistically significant differences in the level of positivity among the administrators of the Palestinian sports clubs in favor of the mean of the participants in the administrative courses Table 2. The researchers attribute this to the role of management courses in training and construction of cognition, mental, social, leadership, psychological and technological, in which refining the personality of the administrators professionally, And enhance their knowledge of their roles and develop their abilities to meet the challenges and difficulties to translate for real in the service and development of sports clubs in all respects. This has contributed to increasing the level of performance, ambition, optimism, happiness, self-satisfaction, control of behaviors, reducing psychological and professional stress and quality of life. Randall (2008) emphasized a positive correlation between optimism and performance while the correlation was negative with pessimism. It's agreed with the results of the study Al-Imam (2005) which showed that the training courses work to raise the administrative efficiency by clarifying the line of work and developing the manager professionally, where there are significant differences between the trainers and unskilled trainers in favor to trainers. The results of the study are also consistent with

Table 4: The results of one way anova to determin the significant differences in the level of positivity among the administrators of the Palestinian sports clubs according to administrative position variable (N=452)

The dependent variable	Source of variance	Sum of squares	Df	Mean square	F	Sig.*
Positivity	Between groups	13, 155	3	4.385	16.419	*0.000
	Within groups	119, 640	448	0.267		
	Total	132, 795	451			

* The level of significance ($\alpha \leq 0.05$). ** DF: Degree of freedom. *** Sig.: Significance level.

Table 5: The results of Scheffe Test for the comparison in the differences of the level of positivity among the administrators of the Palestinian sports clubs according to administrative position variable (N=452)

The dependent variable	Administrative position variables	Means	Club president	Vice President of the club	Club secretary	Treasurer of the club
Positivity	Club president	4.14		*0.37	*0.44	*0.20
	Vice President of the club	3.77			0.07	*-0.17
	Club Secretary	3.70				*-0.24
	Treasurer of the club	3.94				

* The level of significance ($\alpha \leq 0.05$).

the results of the study (Farooq&Khah, 2011) Which indicated the importance of the training courses in improving the output of the institution and improve the performance of the employees of the institution and develop their abilities and increase their scientific skills, and the training courses have an important role in the participation of the worker and give him the spirit of participation in decision-making and the introduction of new ideas which makes him able to perform his work on the complete and field of work. Tamraz (2015) believes that the good management work of sports clubs requires training and training. Therefore, studying the practical methods of sports management is important for the rehabilitation of the sports administration, which can be said that the study of sports management is necessary to succeed in administrative work in sports club.

Also, There were also statistically significant differences at the level of ($\alpha \leq 0.05$) in total level of positivity scale among the administrators of the Palestinian sports clubs according to the variable of the administrative position for the club president and then the treasurer, This result, agreed with Ramadan's (2005) study, inwhich indicated to some positivity traits in building the creative personality of a financial accountant in general, such as: courage, self-confidence, daring and success. This in turn applies to the treasurer of creative sports clubs, according to the researchers opinion. And also, the study results agreed with Coulson (1997) inwhich indicated to some of the personal skills that headmasters of sports clubs and institutions must have by being able to attract and respect others. This requires strong, balanced, intelligent and calm personality, as well as being able to make the right decision, These qualities ultimately lead to improved performance. While the other comparisons were not statistically significant Table 5.The researchers attributed this to two main reasons, firstly the importance of these managerial positions and sensitivity. Secondly put the appropriate people for these positions according to the standards of modern management and related to the personality of leadership and the concept of self-confidence, scientific qualification, administrative courses, communication and social and other desirable. And what was mentioned is characterized by the president of the club followed by the treasurer and this contributed to the formation of a positive personality capable of facing the difficulties and challenges and the development of good qualities, Emphasized by (Mghrby, 2013) With the specifications of the occupant of each administrative position, including: personal qualities - qualifications - practical experience - training courses.

CONCLUSIONS

The results of the study showed that the level of positivity among the administrators of the Palestinian sports clubs was high on all dimensions and the total score of it. Also, the effect of the variable of administrative courses on the positivity level was found for the participants in the administrative courses. The effect of the administrative position variable was found in favor of the club president and then cashier and had no effect for the remaining levels of the variable.

RECOMMENDATIONS

Based on the findings, The researchers recommend the need to focus on psychological skills and developing for administrators, members of organizations of Palestinian sports clubs and carry out other similar studies on players, sport teachers, coaches and others.

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Original Article

The Level of Athletic Identity among Higher Levels Players of Team Sports Games in Palestine

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ABSTRACT

Objectives: The aims of this study were to investigate the level of athletic identity among higher levels players of team sports games, in addition to determine differences according to game type & playing experience variables. **Method and Procedures:** The study sample consisted of (520) players of the high level players of team sports games from Palestine. They were classified by game type, soccer accounted for 40.4% of the sample (n = 210), basketball accounted for 17.3% of the sample (n = 90), handball accounted for 23.1% of the sample (n = 120) & volleyball accounted for 19.2% of the sample (n = 100). To collect data, The authors applied the Athletic Identity Scale (AIMS; Brewer & Cornelius, 2001). The AIMS requires participants to respond to seven items designed to assess aspects of identification (social identity, exclusivity & negative affectivity) with the athlete role on a scale ranging from 1 (strongly disagree) to 7 (strongly agree). Participants' athletic identity is measured by a total composite score generated by a summation of the scores for the 7 items. To address questions in the study, Cronbach's alpha coefficients were computed to determine the reliability, means, standard deviation, percentages, one way anova test were used. **Results:** the results of the study showed the level of athletic identity among higher levels players of team sports games were very high, where the percentage of response for the total score was (81.14%). There weren't significant differences in athletic identity among higher levels players of team sports games according to game type variable. Also there weren't significant differences in athletic identity among higher levels players of team sports games according to playing experience variable.

Keywords: Athletic identity, AIMS, social identity, exclusivity, negative affectivity

INTRODUCTION

The most important characteristic of team sports is that the team plays as one individual. Team sports are different than other sports. They are teams that have interactive work nature as all team members are working together in harmony through complementary movement between them to achieve one goal. That is through the direct contact between team members during playing and movement. Achievement and Success are results to the ability of communication and understanding between them (Yassin, 2006).

Athletic identity (AI) is considered the entity, supremacy and safety valve to any athlete because he develops respect and recognition between all society groups. There are many concepts and terms that define the athletic identity. Brewer et al. (1993) defined it as "The special component of sports according to self definition to the individual and it is the range that the individual determines with his sports role and that means how well the individual knows his sports role". (Cieslak, 2004; Burke, 1991) defined it as "A degree of importance, strength and individuality related to

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the athletic role the athletic plays and is affected by their environment". Cassie (2004) defined it as "How the individual feels his value, and the ability to take decisions and the clarity of the futuristic vision, binding to sports principles and defining goals that suits his abilities". Hutezler (2003) defined it as "Cognitive evaluation range related to social support which related to the athlete's role in sports games".

Athletic identity as part of a great self-concept is able to accurately define roles, attitudes, beliefs and behaviors of the athlete and could be considered the base of self–esteem and value that the athlete regards for the role of "self" (Engels et al., 2006).

Athletic identity is related positively to the athletic performance, failure and success experiences and age. (Brewer et al., 1993) pointed that there is a negative relation between athletic identity and age in a sample of athletic students. Also Houle, Brewer & Kluck (2010) verified the development of athletic identity through 3 different age groups (10 years, 15 years, age of majority) and found out that it rose till the age of 15 then stayed in that level in the age of majority. Martin et al (2014) referred that literature also points that the athletic identity can change in response to some events like success or failure. It is also related to practicing and participation (Anderson, 2004). It can provide the motivation and the discipline required to hard practice and success in high level sport (Callero, 1985; Danish, 1983). The Strong Athletic identity also relates to better health (improving nutrition and sleeping habits), fitness, self respect, improving social relations, strengthen the confidence and increasing the participation in physical activity and practice (Tasiemski et al., 2004; Brewer et al, 1993).

As for athletic identity according to Athletic Identity Measurement Scale (AIMS) (Brewer & Cornelius, 2001), it is composed of three fields: Social Identity which focuses on how the athlete sees himself as an athlete in other people eyes, the second field is Exclusivity which focuses on self image of the individual as an athlete and the third is Negative Affectivity which focuses on the athlete's fear of bad performance.

Athletic identity gained a lot of attention in athletic psychology (Ronkainen et al., 2016) as it is related to different subjects and has an obvious importance by using it in many scientific studies like: level of athletic activity (Reifstech, 2011), and Self-esteem (Al_Qadoumi, 2014), athletic culture (Qadoumi and al-amad, 2017), tension (Vinga, 2015), self identity and its role in predicting the functional growth (Adams, 2011), self burning (Chang et al., 2018) and more.

Researchers examined lots of studies about athletic identity like Abo Alya (2018) study which aimed to identify the differences of athletic identity and team coherence of sports teams in Palestinian universities "Kadoori University" according to two variables: the sex and game type. Qadoumi and Al-Amad study (2017) to know the level of sports culture and its relation with the athletic identity for Physical Education students in Al-nagah National University. The study of Vinga (2015) was to know the relation between athletic identity and the tension in Physical Education students who are participating in sports activities in Lithuania. And the study of Lisa et al (2014) which was for determining the effect of athletic retirement on athletic identity and life satisfaction. Al-Qadoumi study (2014) was to know the relation between athletic identity and self-esteem of Physical Education students in Palestinian universities. The study of Daniel et al (2011) was to identify the athletic identity of society universities and determining how it is used to guide the students. Study of Bogdanov (2011) was to determine the effect of athletic identity of national teams' players on the athletic identity of athletes in Serbia and Ireland. Finally The study of Fraser et al (2009) was to determine the level of athletic identity of elite athletes in Australia.

Objectives

Current study aims to determine the level of athletic identity and the differences according to the game and the experience that elite players in sports teams in Palestine have.

METHOD AND PROCEDURES

Study Approach

Descriptive and analytical approach has been used because it suits the study purposes.

Study Society

The study society is composed of all professional football players, volleyball clubs, basketball and handball in West Bank, Palestine. There were (46) clubs which have about (1040) players according to athletic Palestinian unions in 2018-2019.

Study Sample

The study was conducted on random sample of sports teams players in Palestine according to the game type variable, if has 520 players distributed as (Football = 210, Basketball = 90, Handball = 120, Volleyball = 100) and that was (50%) of the society of study.

Study Tools

The researchers used Athletic Identity Measurement Scale (AIMS) which was set by (Brewer & Cornelius, 2001). It is considered the most used measurement scale in the previous studies to measure the athletic identity. The measurement scale is composed of (7) items. The response is determined from (1-7). Degree (1) represents the least degree of approval (I strongly disagree) and degree (7) is the highest degree of approval (I strongly agree). The examined person is asked to put a circle on the number that reflects his opinion, and like that, the lowest degree is 1 and the highest is 7. Items were Distributed these on 3 fields: Social identity (3) items, singularity (2) items and negative excitement (2) items.

Accuracy of the scale was confirmed and researchers applied it on exploratory sample composed of sports teams' players in Palestine outside the study sample and from the study society (55) players from all games. Then internal consistency was used to extract Pearson correlation coefficient values between scale parts with its total degree. It was found that these values ranged between (0.80 – 0.92). It has statistically significant at significant level ($\propto \leq 0.01$). And this shows that the scale is sufficient for its purpose. To confirm the scale stability, Cronbach's Alpha test was used for internal consistency between items and the total degree to extract study tool stability factor on sample study individuals. Cronbach Alpha values for athletic identity scale were between (89.5% - 94.8%). Its value on the scale as a whole was (91.2%). These values show that the study tool is highly steady.

Statistical Processing

Researchers used Statistical Packages of Social Sciences program (SPSS) to process the data by extracting means (M), standard deviations (SD) and relative weights to determine the level of the player's athletic identity. One way anova test to determine the differences in the level of athletic identity according to the two variables: game type and players experience.

Viewing the Results of the Study

First: the results related to the first question for the study, which reads

What is the level of athletic identity among higher levels players of team sports games in Palestine?

To answer the first question for the study, the researchers used the means, standard deviations and the percentage relative weights of each paragraph and for each domain, And the total score of the level of athletic identity in study sample, and in order to explain the results, relative weights were used as indicated in the study (Qqdoumi, 2014): 80%, The highest level of athletic identity is very high, 70-79.99% is a very high athletic identity level, 60-69.99%, The level of athletic identity is average, 50-59.99% the level of the athletic identity is low, less than 50% is a very low athletic identity.

It appears from the results of the Table 1 that the level of the athletic identity among higher levels players of team sports games in Palestine was very high on items (1, 2, 6, 7), where the percentage of response was more than 80% and the level was high on the items (5,4,3), where the percentage response was respectively: (78.71%, 79.00%, 76.57%). With regard to the order of areas of athletic identity was the dimension of social identity ranked first (83.29%), followed by the dimension of negative emotion (83.14%), and finally after exclusivity dimension (77.71%), as it was a very high overall level of scale athletic identity.

Second: The results related to the second question for the study, which reads

Are there any statistically significant differences in the level of the athletic identity among higher levels players of team sports games in Palestine according to game type variable?

To answer the second question for the study, researchers with the use of means and standard deviations of the level of athletic identity of the players and one way anova to determine the differences according game type variable and the results of Tables 2 and 3 show that.

It is clear from the results of Table 3 that there are no statistically significant differences in the overall level of the athletic identity scale and its dimensions among higher levels players of team sports games in Palestine according to game type variable.

Table 1: Means, standard deviations and relative weights for the level of the athletic identityamong higher levels players of team sports games in Palestine (N=520)

No.	Items and athletic identity scale dimensions	Mean	Standard deviations	%	Response	Rank
1	I consider myself an athlete	6.10	1.31	87.14	Very high	1
2	I have many goals related to sport	5.87	1.10	83.86	Very high	2
3	Most of my friends are athletes	5.51	1.38	78.71	High	3
Total level of social identity dimension		5.83	1.09	83.29	Very high	1
4	Sport is the most important part of my life	5.53	1.40	79.00	High	1
5	I spend more time thinking about sport than anything else	5.36	1.50	76.57	High	2
Total level of exclusivity dimension		5.44	1.31	77.71	High	3
6	I feel bad about myself when I do poorly in sport	5.86	1.31	83.71	Very high	1
7	I would be very depressed if I were injured and could not compete in sport	5.80	1.44	82.86	Very high	2
Total level of negative affectivity dimension		5.82	1.28	83.14	Very high	2
Total level of athletic identity scale		5.72	1.05	81.14	Very high	-

*Maximum degree of response (7) degrees. ** (percentage =%)

Table 2: Means and standard deviations for the level of athletic identity among higher levels players of team sports games in Palestine according to game type variable (N=520)

No.	Athletic identity dimensions	Game type variable	N	Mean	Standard deviation
1	Social identity dimension	Football	210	5.79	0.91
		Basketball	90	5.86	1.23
		Handball	120	5.75	1.36
		Volleyball	100	5.99	0.91
2	Exclusivity dimension	Football	210	5.45	1.13
		Basketball	90	5.60	1.25
		Handball	120	5.08	1.70
		Volleyball	100	5.72	1.06
3	Negative affectivity dimension	Football	210	5.75	1.18
		Basketball	90	5.72	1.44
		Handball	120	5.89	1.43
		Volleyball	100	6.01	1.12
-	Total level of athletic identity scale	Football	210	5.68	0.80
		Basketball	90	5.74	1.20
		Handball	120	5.60	1.27
		Volleyball	100	5.92	0.92

Third: The results related to the third question for the study, which reads

Are there any statistically significant differences in the level of athletic identity among the high-level players of the team sports gamesin Palestine due to the variance of the experience in the game?

To answer the third question for the study, researchers with the use of means and standard deviations of the level of athletic identity of the players and one way anova to determine the differences according game type variable and the results of Tables 4 and 5 show that.

It is clear from the results of Table 5 that there are no significant differences in the level of athletic identity among among higher levels players of team sports games in Palestine according to play experience variable.

Table 3: The results of one way anova to determin the significant differences in the level of athletic identity among higher levels players of team sports games in Palestine according to game type variable (N=520)

No.	Athletic identity dimension	Source of variance	Sum of squares	df	Mean square	F	Sig.
1	Social identity dimension	Between Groups	3.867	3	1.289	1.085	0.355
		Within Groups	612.798	516	1.188		
		Total	616.665	519			
2	Exclusivity dimension	Between Groups	25.237	3	8.412	5.001	
		Within Groups	868.059	516	1.682		
		Total	893.296	519			
3	Negative affectivity dimension	Between Groups	6.071	3	2.024	1.228	0.229
		Within Groups	850.117	516	1.648		
		Total	856.188	519			
Total level of athletic identity scale		Between Groups	6.016	3	2.005	1.837	0.139
		Within Groups	563.205	516	1.091		
		Total	569.220	519			

* The level of significance ($\alpha \leq 0.05$). ** DF: Degree of freedom. *** Sig.: Significance level.

Table 4: Means and standard deviations for the level of athletic identity among higher levels players of team sports games in Palestine according to play experiance variable (N=520)

No.	Athletic identity dimensions	Playing experience variable	N	Mean	Standard deviation
1	Social identity dimension	Less 5 years	164	5.82	1.13
		6-10 years	194	5.76	1.05
		More 10 years	162	5.92	1.09
2	Exclusivity dimension	Less 5 years	164	5.49	1.37
		6-10 years	194	5.40	1.22
		More 10 years	162	5.45	1.36
3	Negative affectivity dimension	Less 5 years	164	5.84	1.30
		6-10 years	194	5.81	1.23
		More 10 years	162	5.83	1.32
-	Total level of athletic identity scale	Less 5 years	164	5.73	1.08
		6-10 years	194	5.67	1.00
		More 10 years	162	5.76	1.06

DISCUSSION OF THE RESULTS

The study aimed to determine the level of athletic identity and differences depending on the variables of game type and experience of playing among higher levels players of team sports games in Palestine, Where it turns out that the level of the athletic identity of team sports games in Palestine was too high and this is because of these players represent the highest athletic level and therefore they do have a high level of Performance delivery, experience success, collective interaction, self – esteem, mood, and emotional intelligence, in addition to sports training and arranging, and its contribution to the formation of positive experiences they have where there is an agreement between the majority of studies In the presence of a positive impact of sports activitieson the athletic identity. which in turn contributed to raise the level of their athletic identity. And the results were consistent with the results of studies (Reifsteck, 2011; Vinga, 2015; Fraser et al., 2009) which results showed a positive relationship between the level of sports practice and the continuation of sports activities and athletic identity, and showed some studies such as (Fraser et al., 2009) Said that after the retirement of some Australian athletes and the lack of sports activities led to a lack of level of athletic identity compared to younger people. These results are consistent with the concept of mathematical identity, which means the extent determined by the individual with the athletic

Table 5: The results of one way anova to determin the significant differences in the level of athletic identity among higher levels players of team sports games in Palestine according to play experience variable (N=520)

No.	Athletic identity dimension	Source of variance	Sum of squares	df	Mean square	F	Sig.
1	Social identity dimension	Between Groups	2.224	2	1.112	0.936	0.393
		Within Groups	614.440	517	1.188		
		Total	616.665	519			
2	Exclusivity dimension	Between Groups	0.671	2	0.335	0.194	0.824
		Within Groups	892.625	517	1.727		
		Total	893.296	519			
3	Negative affectivity dimension	Between Groups	0.100	2	0.050	0.030	0.970
		Within Groups	856.088	517	1.656		
		Total	856.188	519			
Total level of athletic identity scale		Between Groups	0.760	2	0.380	0.346	0.708
		Within Groups	568.460	517	1.100		
		Total	569.220	519			

* The level of significance ($\alpha \leq 0.05$). ** DF: Degree of freedom. *** Sig.: Significance level

identity assigned to any degree of knowledge of the individual's role in sports (Brewer et al., 1993; Cieslak, 2004; Cassie, 2004).While the results of this study differed with Qadoumi and AL-Ammad, 2016) and (Vinga, 2015) studies, Which showed that the level of athletic identity was high, and (Caudroit & et al., 2010) study, Which showed that the level of athletic identity was moderate.

While there are no statistically significant differences in the overall level of the athletic identity scale and its dimensionss according to game type variable due to the similarities in the conditions of the training environment and training structure by one training unit per dayin addition to the essence of interest in team sports games by the sports federations without differentiation between them and provide all suitable playing conditions for each player depending on the game type. Such results differ with the results of a study (Daniel et al., 2011) Which showed differences depending on the game type like basketball, followed by football and finally baseball. While agreeing with what Yassin (2006) pointed to that team sports games are distinct from other games that a difference in the nature of the interactive work, where like all members of the team work together in perfect harmony through motor and physical integration towards achieving a single goal And this is through direct contact between the members of the team during the game and moves and be accomplished and success as a result of the ability to communicate and understanding between them.

It turns out that there are no statistically significant differences in the level of athletic identity according to play experience variable due to the convergence of the players level of performance in different age because most of the players in the local and come into contact with each other with the loss of external friction, in addition to the stability of the level of athletic identity in adulthood and this is confirmed by (Houle, Brewer, & Kluck, 2010) In the development of athletic identity in three age groups (10 years, 15 years, and age of majority). and found that they increased until the age of 15 and then remained at this level in adulthood. Brewer et al. (1993) Indicates a negative relationship between athletic identity and age in a sample of student-athletes. He stressed (Fraser et al., 2009; Lisa et al., 2014) that the closer they get to retirement the less their level of athletic identity, while the results differed with the results of the study (Bogdanov, 2011) Which showed that the level of sports identity was high at the oldest age.

CONCLUSIONS

In light of the results of the study and discussion, the researchers found the overall level of scale athletic identity among study sample was very high, a while there is no effect of the variables of the game type and experience playing on the athletic identity among the study sample.

RECOMMENDATIONS

based on findings, the researchers recommend that the management of sports clubs and coaches in the

development of sports identity of young people Because they have a role in influencing commitment and athletic affiliation in the future.

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Original Article

The Student's Teachers Trends Toward the Profession of Teaching Physical Education in Selected University in Countries (Czech Republic - Egypt - Saudi Arabia) a Comparative Study

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ABSTRACT

The current study aims to determining the difference between students trends who enrolled in program of teaching at three universities on three different continents (Europe - Africa - Asia), respectively are Faculty of Sports Studies, Masaryk University Czech Republic,Faculty of sport education Alexandria University - Arab Republic of Egypt, and Students in department of Physical Education,Faculty of Education King Faisal University, Saudi Arabia Kingdom,toward profession of teaching physical education,The methodology used in this study was based on a descriptive survey manner to suit them with the nature of the research and the objectives. The authors used a scale (questionnaire form, included (4) axes which had designed by the authors) to measure trends towards the profession of teaching physical education which design it as a main tool to collect data after rationing in terms of consistency, honesty and objectivity, the sample (n=223) divided in three university students Masaryk University (n=67), Alexandria University (n=86) King Faisal University (n=70) also were excluded (n=6) For non-completion the data or found Indiscriminate in their answers, and the pilot study (n=19) while the basic study(n=198). The results concluded that there is a presence of strong tendency among the students in Masaryk University, Alexandria University and King Faisal University,toward sport education teaching profession, and also the results show that the Arab societies are the most positive in their trends toward the teaching profession and also the most convinced, preference to this profession in general more than western societies but the authors cannot generalize the results to all Arab and Western societies because this study was limited to only one European country and only two Arab countries, for generalization the results require generalization the study on many samples from different Arab and Western societies, Based on the above, the authors set recommendations which help to improve the level of students trends to profession of teaching physical education.

Keywords: The student teachers trends, profession, teaching physical education

INTRODUCTION

Our World witnessing today many changes and transformations in all fields and all levels, so it is necessary to keep pace these changes and transformations, developments and reforms in the educational field. From where that education is a tool that is able to build human who is able to deal with facts and Challenge of the third millennium as a result, the problem of educational development and school reform occupied the center stage in thought of educators and their priorities, in order to achieve development and reform of the educational reality in all its aspects. Hamdan,(1997)And now the nations being held its hopes currently on the educational process outputs and prepared as a basis for progress and

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advancement and its ability to keep up with changes which happen on a daily basis and in every hour and every second, so to speak, which Reflect the progress of scientific and technological, which affected directly or indirectly in the life of communities and Some of them became able to production the knowledge and using it to facilitate things in life, and thus described as developed societies, while others are Still consumes the knowledge which produced by others without their ability to develop this knowledge or to employ them optimum in the development their lives and thus described as developing societies. Sykes (1996).

Physical Education seeking, as part of public education to elevate the individual, make his more balanced, and have ability to compatibility with his environment and his society, and physical education also interest to acquisition the values by its nature and its objectives, through the interaction between its different activities and its events, with social life, beside its care to individual's health and development his skills and physical abilities and motor. Al -Temmy (2009). In the modern era it has become as one of the fields that greatly expanded on the social leveland after increasing the public awareness of its health, recreational, and educational value and it has become one of the overlapping activities in the conscience of all people at different of their ages, cultures, and levels.

Several developments have occurred in physical education and sports as a profession and as system during the twentieth century, most notablyIs that the vocational Specialist curve which skip stages of work in the field of teaching physical education to more expansive horizons such as sport training, sport management and recreational sport El- Khohli (2002).

Which make job chances grow and prosper to graduates of colleges and departments of physical education and sports and open new business markets to face the programs needs of qualified professionals and to provide different professional services to all members of community Abu Taameh (2006).

However, this attention is focused more on the teacher who the main pillar in the process of development and modernization as he is also basic oriented to educational process, and he is the responsible for achieving the objectives of the educational system. Hamdan (1997) In addition to the new trends in the field of teacher preparation, which emphasizes the need to keep up with the era and pursuit of The scientific, educational and technical developments, which helps him to perform his role in carrying out his duties in order to keep pace with modern developments and deal with the challenges of the future. Canaan (2007).

But, it is noted that although the importance of physical education for teacher but his outputs to the students is still below the required level,which reflecting that the actual performance of the applicable educational activity in Physical Education lesson is not invest in teaching different skills in the form which achieve the maximum return,but sometimes it may reach to a Lack of production from the teacher, although thephysical education teacheroccupiesan important placein the education systemanddirectly affects thestudents, and also he is the most important factor in the educational process. Khasawneh (2006).

The trends study is considered as one of the important topics in determining the positive behavior towards the profession which practiced by individual, and It offers also some indications that refer to Possibilities of success in Various professional requirements. Al Khaja (1997)Although the trends characterized by relative stability, the individual's judgment on the topics and issues that charge relatively constant and therefore it is possible to study trends and use in the prediction of behavior, and this helps us to the possibility of changing the diverse programs and developed to strengthen desired trends. Sehata(2007), & Reeves(2000).

It's also considered one of the main components of a personal teacher, where it form a reality directs and activates the teacher's behavior in educational situations that require him to response to acceptance or rejection and love or hate Abdul Rahman., & others (1992)

- Trends is a case of readiness or preparedness nervous and psychological, is organized through the experience of the person, and be a guideline or a dynamic effect to the individual's response to all of the topics and attitudes that give rise to this response OKeefe & Daniel (2002)
- Ready sentimental., learner, relatively constant determining the individual feeling and behavior towards certain subjects in terms of Preference and non-Preference Ismail (1990)
- It's a position that is expressed by person in terms

of acceptance and non-acceptance of a someone or group or something, or a topic. El- Shenawy (1997).

Also,one of the studies has confirmed there is a positive relationship between the lack of conviction of the teaching profession and lack of sincerity in,all of this shows the importance of trends and its role in the teaching process, the fact that trends is a part of a Personal teacher and his behavior, because the individual trends towards his work has a clear effect on the production and performance of the education, a teacher who loves his work will provide a good trends and his performance Features efficiency towards desired targets,,, the interest does not limited to developing the Cognitive skills and performance of the teacher, but it has become necessary to development positive trends to towards of the teaching profession, it is true that the first one was guarantee him success in the Practicing of the profession In practical life, but the second one stops on it the look of the teacher to teaching profession itself and what associated with, like his appreciation for himself and his social role and his sense of satisfaction and his strong sense with emotional commitment towards student Starnman, (2006).

Naturally, the positive trends of the individual decides the extent of his success in his professional and personal life, and if we had positive trends about our work, this will drive us to try to overcome all the obstacles and frustrations that may confront us and hinder our success in this work, but if our trends was negative about this work, we are giving a chance for ourselves to adopt a lot of the frustrations that will make us fail in this performance work. Gee.J & Gee. V (2006)

Psychological Characteristics of the Trend

1. Trend is hypothetical formation: some individual which their responses was positive towards a particular activity (are exercising,Watching, reading sports topics) we say the trend of their individuals is positive trend
2. Trend learner (acquired): means it acquired from culture through social normalization process, which means (prepare the individual for life in the community in which he live in it) because the individual acquires from his society and his culture the appropriate trends towards the others and towards some of the sports, social activities and, so it applies to acquisition trends towards activities sports a lot of learning principles and its theories
3. Trend consists of the elements: (Knowledge, emotion and tendency)/: -and knowledge element mean (believe or not to believe) and the emotional element mean represents (the preference and non-preference or another meaning the positive and negative sentiment) and the tendency element mean ready to respond (behavior)
4. Trend is positive or neutral or negative: and can be likened as a straight line Up between two points, one represents full support (Maximum of positive) and the other point represent the exhibits line (Maximum of negative) and point in the center is neutrality point El-Taleb, and Hawees (2000).

Stages of Formation of Trend

The process of formation of trends for the individual is not occur at once, but it passes through many stages through the individual interaction with the environment, with its elements, components, assets and thus the trend becomes an evidence of individual activity and its interaction with the environment, as well as the process of formation of direction of going through three stages:

1- Cognitive knowledge Phase: It is a phase through which the individual realizes stimuli environment and recognize them and have a balance between, experience and information,and is like a frame of reference and cognitive for this stimuli

2- Evaluation phase: Isthe stage in which the individual resides the interaction with stimuli in addition to many other frames, which being of these stimuli, as well as several other windows including what is subjective not objective which contain a lot of sensations and feelings that relates to this exiting

3- Discretion phase: Is a phase in which the individual makes decision on the quality of his relationship with these elements, the trend has been composed Using indoctrination which means the transfer of experiences indirectly to the individual, regardless of the composition of trends, whether direct or indirect way, the social normalization process or socialization or social learning is responsible for the formation and development trends or erased or changed Abdul Rahman (1983).

THE RESEARCH PROBLEM

There is no doubt that the profession of teaching physical education is one of the professions that require a positive trend towards it, in addition to

having technical and scientific capabilities in order to succeed in it.

And the career of teaching physical education today Playing a major role in the future of any society, through the creation and development of a more positive life for members of the community from all mental and physical, psychological and health aspects, so it is necessary to be 's teachers of Physical Education, the faithful of the importance of the message they carry and be a high degree of efficiency professional, because the inefficiency of some physical education teachers could be due to a lack of faith in the teaching profession.

The process of teaching physical education in the Arab Republic of Egypt Czech Republic, and Saudi Arabia is done through enrollment faculties of Physical Education or faculty of education department of Physical Education and the consequent vocational preparation to improve the level of their specialists in cognitive and applied aspects In order to perform their educational roles in the future in the profession of teaching physical education,the process of setting goals in vocational choice is one of the important methods to identify the readiness and ability of the individual to the profession, who accepted it and thus can determine the extent of individual's success in this profession and the possibility of development.It is also known that the Faculty of Sports Studies at Masaryk University and the Faculty of Physical Education at of Alexandria University and the Faculty of Education Department of Physical Education at King Faisal University, Have created the educational chance through their program (educational, learning) To provide the skills needed to their students to succeed in the profession of teaching physical education, but the question arises here, does they providing them with positive concepts about this profession? does they modify the negative perceptions about it ?...

From previous view the research problem determined in knowingThe Trends of Student Teachers Towards the Profession of Teaching Physical Education in faculty of Sports Studies Masaryk University Czech Republic, faculty of Physical Education Alexandria University - Arab Republic of Egypt, and faculty of Education department of Physical EducationKing Faisal University, Saudi Arabia to Profession of teaching physical education.

THE RESEARCH OBJECTIVE

Determining the difference between the trends of Students TeachersTowards the Profession of Teaching Physical Education in faculty of Sports Studies at Masaryk University Czech Republic, faculty of Physical Education at Alexandria University - Arab Republic of Egypt, and faculty of Education department of Physical Education at King Faisal University, Saudi Arabia.

THE RESEARCH QUESTION

What is the differencebetween the trends of Students TeachersTowards the Profession of Teaching Physical Education in faculty of Sports Studies at Masaryk University Czech Republic, faculty of Physical Education at Alexandria University - Arab Republic of Egypt, and faculty of Education department of Physical Education at King Faisal University, Saudi Arabia?

THE RESEARCH PROCEDURE

Methodology

The researchers used the descriptive (Survey) because it's appropriate to nature of the research and the objectives.

The Study Society

All students enrolled in the program of teaching at the Faculty of Sports Studies Masaryk University, Czech Republic Faculty of Physical Education, Alexandria University Arab Republic of Egypt, as well as the students of the Department of Physical Education, Faculty of Education, King Faisal University, Saudi Arabia.

The Study Sample

Represented in a random sample of students total (n= 223) Equal 50% of research community and they are students Enrolled in programs or departments of teaching, and they will work in profession of teaching physical education, for this academic years 2014/2015. divided as follow:

- Masaryk University(n= 67)
- Alexandria university (n=86)
- King Feisal university (n=70).

Also were excluded (n=6) For non-completion the data or found Indiscriminate in their answers, And the pilot

study (n=19) while the basic study(n=198), They are who has been conducting statistical them processors as shown in Table 1.

Data Collect Tools

The researchers used interviews and questionnaires (Designed by the researchers) The questionnaires contain (4) axes with total (24)Items as following:

First axis: Students Trends towards the profession of teaching physical education, (6)Items.

Second axis: Students Trends in Differentiation between the profession of teaching physical education and other professions,(6) Items

Third axis: The society trends towards the profession of teaching physical education,(7) Items

Fourth axis: Students trends toward Factors affecting in choosing a teaching physical education profession, (5) Itemswith a five-point Scale(very high degree, high degree, somehow, low degree, very low degree) was used (5,4,3,2,1)Respectively.

Also has been adopted the following of the average calculation as a measure of the power of direction: - Less than or equal (3) weak trend, from(3.1: 3.50) medium trend, from (3.51: 4) strong trend

Pilot study: The researchers apply the questionnaire on a group of students as a pilot study (n=19) student, distributors on teaching program at the Faculty of Sports Studies Masaryk University, faculty of Physical Education, Alexandria University and the Department of Physical Education, Faculty of Education, King Faisal University

after (15) days, the researchers apply the questionnaire (test/re-test) to the same sample to find a (Pearson correlation coefficient) between the two applications which expresses the stability of the questionnaire.

As shown in Table 2 Main application: Main application was performed on the main sample (n=198) from 7/12/2014 to 14/12/2014The researchers collected questionnaires for correction and data analysis knowing that the researchers translated the questionnaire to coincide with the official language of each country's participation in the study

Statistical treatment: The researchers used the Statistical Treatment which appropriate to nature of the research.

THE RESULT

Seen from theTable (7) which includes significant differences between the three universities in the scale axes using the least significant difference test LSD that the order of axes scale as follows:

Table 1: Numerical distribution to the pilot and basic

No.	Universities	Total Sample	Total of Excluded	Total Pilot Study	Total Main Study
1	Masaryk	67	1	6	60
2	Alexandria	86	3	8	75
3	King Feisal	70	2	5	63
Total University 3		223	6	19	198

Table 2: The differences between the first and second application to calculate the stability of the Questionnaire (n=19)

Axes	The First Application		The Second Application		T	Stability coefficient (R)
	SMA	Standard deviation	SMA	Standard deviation		
Firstaxis : Students Trends towards the profession of teaching physical education.	3.69	0.62	3.73	0.66	2.56	**0.89
Second axis: Students Trends in Differentiation between the profession of teaching physical education and other professions.	3.68	0.68	3.52	0.64	2.16	**0.80
Third axis: The society trends towards the profession of teaching physical education.	3.62	0.49	3.76	0.59	2.68	**0.73
Fourth axis: Students trends toward Factors affectingin choosing a teaching physical education profession.	4.06	0.69	3.87	0.71	3.46	**0.82

* Correlation is significant at (0.01)

As shown in table 3 First axis: Exceeded(King Faisal) University (Alexandria) Universityand (Masaryk)University
Also exceeded(Alexandria) University(Masaryk) University.
As shown in table 4 Second axis: Exceeded(King Faisal) University (Alexandria) Universityand (Masaryk) University
Alsoexceeded (Alexandria) University(Masaryk) University.
As shown in table 5 Third axis: Exceeded(Alexandria) University (King Faisal) Universityand (Masaryk) University
Alsoexceeded (King Faisal) University(Masaryk) University.
As shown in table 6 Forth axis: Exceeded(Alexandria) University (King Faisal) Universityand (Masaryk) University
Alsoexceeded (Masaryk) University(Alexandria) University.

DISCUSSION

The First Axis: Students Trends Towards the Profession of Teaching Physical Education

seen from Table No.(7) which includes significant differences between the three universities in the scale axes using the least significant difference test LSD.

That the arithmetic average to total paragraphs of the first axis respectively king Faisal University students with average (3.71) and then Alexandria University students with average (3.69) and then the University Masaryk students with average (3.66), which averages make a high degreeto positive trends in general about the profession of teaching physical educationThese findings are consistent with (Faulkner & Reeves 2000) study which refer that there was a positive trend toward teaching physical education and also consistent with Khasawneh. (2006) study, Al Khaja (1997) study, and completely agree with the Abdullah (2007) study and partly agrees with Al -Temmy, Al-wany, Abdel Hussein,

Table 3: Redundancy and the percentage of statistical and semantic own responses (sample) on the first axis phrases
Firstaxis : Students Trends towards the profession of teaching physical education (n=198)

No.	Very high degree		High degree		Some how		Low degree		Very low degree		CH^2	SMA	Relative Weight	Relative Importance
	Rep.	%	Rep.	%	Rep.	%	Rep.	%	Rep.	%				
Faculty of Sports Studies-MasarykUniversity - Czech Republic														
X1	38	36.3	17	28.3	5	8.3	0	0	0	0	27.9	4.55	91	1
X2	8	13.3	33	55.0	17	28.3	2	3.3	0	0	36.4	3.78	75.6	2
X3	9	15.0	22	36.7	22	36.7	6	10.0	1	1.7	30.5	3.53	70.6	3
X4	3	5.0	31	51.7	19	31.7	7	11.7	0	0	32.0	3.5	70	4
X5	10	16.7	15	25.0	20	33.3	10	16.7	5	8.3	26.8	3.25	65	6
X6	2	3.3	2	3.3	20	33.3	28	46.7	8	13.3	44.7	3.37	67.4	5
Faculty of Physical Education - Alexandria University - Egypt														
X1	47	62.7	16	21.3	10	10	1	1.3	1	1.3	96.13	4.43	88.6	1
X2	37	49.3	25	33.3	11	11	0	0	2	2.7	38.1	4.27	85.4	2
X3	37	49.3	22	29.3	11	11	4	5.3	1	1.3	57.73	4.20	84	3
X4	19	25.3	31	41.3	14	14	7	9.3	4	5.3	30.53	3.72	74.4	4
X5	17	22.7	15	20.0	31	31	7	9.3	5	6.7	28.27	3.43	68.6	5
X6	1	1.3	3	4.0	27	27	17	22.7	27	36.0	42.13	2.12	42.4	6
Faculty of Education Department of Physical Education- King Faisal University - Saudi Arabia														
X1	43	68.3	15	23.8	5	7.9	0	0	0	0	36.95	4.60	92	2
X2	48	76.2	12	19.0	3	4.8	0	0	0	0	54.00	4.71	94.2	1
X3	36	57.1	16	25.4	11	17.5	0	0	0	0	16.67	4.40	88	4
X4	40	63.5	17	27.0	5	7.9	1	1.6	0	0	58.58	4.52	90.4	3
X5	3	4.8	2	3.2	6	9.5	16	25.4	36	57.1	64.06	1.73	34.6	6
X6	1	1.6	7	11.1	24	38.1	12	19.0	19	30.2	26.76	2.35	47	5

**Chi-square is significant at the 0.05 level

Table 4: Redundancy and the percentage of statistical and semantic own responses (sample) on the Second axis phrases
Second axis: Students Trends in Differentiation between the profession of teaching physical education and other professions (n=198)

No.	Very high degree		High degree		Some how		Low degree		Very low degree		CH^2	SMA	Relative Weight	Relative Importance
	Rep.	%	Rep.	%	Rep.	%	Rep.	%	Rep.	%				
Faculty of Sports Studies-MasarykUniversity - Czech Republic														
X13	1	1.7	6	10.0	25	41.7	21	35.0	7	11.7	36.00	2.55	51	4
X14	0	0	7	11.7	18	30.0	32	53.3	3	5.0	33.73	2.48	49.6	5
X15	0	0	7	11.7	13	21.7	34	56.7	6	10.0	34.00	2.35	47	5
X16	17	28.3	22	36.7	12	20.0	9	15.0	0	0	26.53	3.78	75.6	1
X17	0	0	4	6.7	19	31.7	28	46.7	9	15.0	22.80	2.30	46	7
X18	4	6.7	18	30.0	24	40.0	8	13.3	6	10.0	24.66	3.10	62	2
X19	0	0	11	18.3	27	45.0	15	25.0	7	11.7	24.93	2.70	54	3
Faculty of Physical Education - Alexandria University -Egypt														
X13	20	26.7	28	37.3	18	24.0	8	10.7	1	1.3	29.86	3.77	54	6
X14	17	22.7	27	36.0	21	28.0	6	8.0	4	5.3	25.73	3.63	75.4	3
X15	5	6.7	19	25.3	20	26.7	18	24.0	13	17.3	19.27	2.8	72.6	4
X16	45	60.6	23	30.7	7	9.3	0	0	0	0	29.12	4.5	56	5
X17	22	29.3	29	38.8	21	28.0	2	2.7	1	1.3	43.07	3.92	90	1
X18	7	9.3	12	16.0	23	30.7	18	24.0	15	20.0	29.73	2.70	78.4	2
X19	19	25.3	22	29.3	16	21.3	13	17.3	5	6.7	21.33	3.49	54	6
Faculty of Education Department of Physical Education- King Faisal University - Saudi Arabia														
X13	11	17.5	19	30.2	16	25.4	5	7.9	12	19.0	28.98	3.19	63.8	6
X14	34	54.0	13	20.6	10	15.9	6	9.5	0	0	29.76	4.19	83.8	3
X15	12	19.0	22	34.9	21	33.3	3	4.8	5	7.9	24.54	3.52	70.4	4
X16	0	0	1	1.6	3	4.8	4	6.3	55	87.3	30.71	1.20	24	7
X17	7	11.1	12	19.0	30	47.6	9	14.3	5	7.9	32.16	3.11	62.2	5
X18	36	57.1	25	39.7	2	3.2	0	0	0	0	28.67	4.54	90.8	1
X19	27	42.9	27	42.9	9	14.3	0	0	0	0	23.28	4.29	85.8	2

**Chi-square is significant at the 0.05 level

Matar (2009)study and Stephen Mabagalaet all(2013) study.

The researchers believe that these strong trends towards profession of teaching physical education play a very positive role towards improving the teaching and learning process and which makes these positive trends as a base for most educational activities, thus contributing generally in preparation of the student teacher and directs his behavior and adjusts his trends to be satisfied about profession in general, which in turn, helpsat the end to do his work better, and it is also clear that the arithmetic mean of the responses the sample in the three universities is close and positive which refers to that the students have ready in general to work in profession of teaching physical education and possibly due to what the profession availability of satisfying them where it allows the students to achieve a great deal of enjoyment, happiness and pleasure.

Second Axis: Students Trends in Differentiation Between the Profession of Teaching Physical Education and Other Professions

seen from Table No.(7) which includes significant differences between the three universities in the scale axes using the least significant difference test LSD.

That the arithmetic average to total paragraphs of the second axis respectively king Faisal University students with average (3.49) and then of Alexandria University students with average (3.39) and then the University Masaryk students with average (2.99), which averages make low and medium degreeStraight

Table 5: Redundancy and the percentage of statistical and semantic own responses (sample) on the Third axis phrases

Third axis: The society trends towards the profession of teaching physical education (n=198)

No.	Very high degree		High degree		Some how		Low degree		Very low degree		CH^2	SMA	Relative Weight	Relative Importance
	Rep.	%	Rep.	%	Rep.	%	Rep.	%	Rep.	%				
Faculty of Sports Studies-MasarykUniversity - Czech Republic														
X7	7	11.7	14	23.3	24	40.0	9	15.0	6	10.0	18.16	3.12	62.4	3
X8	0	0	0	0	23	38.3	20	33.3	17	28.3	21.90	2.1	42	4
X9	18	30.0	30	50.0	9	15.0	3	5.0	0	0	27.60	4.05	81	1
X10	11	18.3	34	56.7	13	21.7	2	3.3	0	0	36.67	3.9	78	2
X11	0	0	0	0	19	31.7	22	36.7	19	31.7	23.30	2.00	40	6
X12	4	6.7	8	13.3	27	45.0	12	20.0	9	15.0	26.17	2.77	55.4	5
Faculty of Physical Education - Alexandria University - Egypt														
X7	5	6.7	13	17.3	20	26.7	18	24.0	19	25.3	20.27	2.56	51.2	5
X8	34	45.3	21	28.0	18	24.0	2	2.7	0	0	27.66	4.16	83.2	2
X9	8	10.7	9	12.0	16	21.3	21	28.0	21	28.0	20.53	2.49	49.8	6
X10	44	58.7	11	14.7	13	17.3	2	2.7	5	6.7	75.33	4.16	83.2	2
X11	6	8.0	10	13.3	30	40.0	10	13.3	19	25.3	24.80	2.65	53	4
X12	37	49.3	27	36.0	10	13.3	1	1.3	0	0	42.28	4.33	86.6	1
Faculty of Education Department of Physical Education- King Faisal University- Saudi Arabia														
X7	37	58.7	17	27.0	7	11.1	1	1.6	1	1.6	72.64	4.40	88	3
X8	1	1.6	4	6.3	25	39.7	20	31.7	13	20.6	33.11	2.57	51.4	5
X9	51	81.0	11	17.5	1	1.6	0	0	0	0	66.67	4.79	95.8	1
X10	40	63.5	17	27.0	6	9.5	0	0	0	0	28.67	4.54	90.8	2
X11	7	11.1	5	7.9	26	41.3	17	27.0	27.0	12.7	24.54	2.78	55.6	4
X12	2	3.2	6	9.5	9	14.3	13	20.6	20.6	52.4	46.44	1.90	38	6

**Chi-square is significant at the 0.05 level

in Differentiation between the profession of teaching physical education and other professions,and this is consistent with Hassan (2014) study, Abdel Fattah. (2010) study, Badr (1975), study Which showed that there is a clear contradiction between academic courses and fields of work to graduates, also agree with Khasawneh (2006) study, and Fahad, and Alkanaan(1986).

The researchers believe that thesemedium and low trends towards differentiation between the profession of teaching physical education and other professions refer to a case of dissatisfaction between King Faisal University students, Alexandria University students and Masaryk University students toward the programs which qualify by their own faculty, and this case of dissatisfaction probably due to interesting to cognitive dimension and descriptive to methods and curriculum teaching sports without interest to learn the appropriate practical experiences and that will help the student teacher to create similar positions and similar to those facing, in fact experience and which helping them to develop their educational performance.

Also maybe there is effect for cultural, economic factors,social legacies and ideology trends of the different peoples have negative effecton the sample responses towards the profession of teaching physical education, and although the fact that the study doesn't describe the effect of these factors and different variables on the students trends, but it is necessary to know how strong the effect of these factors maybe it was the decisive factor in preference the profession of teaching physical education upon others professions, Which requires to do another study to complement the study to clarify the picture is full,correct and appropriate manner.

Third Axis: The Society Trends Towards the Profession of Teaching Physical Education

seen from Table No.(7) which includes significant differences between the three universities in the scale

Table 6: Redundancy and the percentage of statistical and semantic own responses (sample) on the Fourth axis phrases
Fourth axis: Students trends toward Factors affecting in choosing a teaching physical education profession (n=198)

No.	Very high degree		High degree		Some how		Low degree		Very low degree		CH^2	SMA	Relative Weight	Relative Importance
	Rep.	%	Rep.	%	Rep.	%	Rep.	%	Rep.	%				
Faculty of Sports Studies-MasarykUniversity - Czech Republic														
X20	11	18.3	13	21.7	16	26.7	11	18.3	9	15.0	22.33	3.10	62	4
X21	17	28.3	23	38.3	15	25.0	4	6.7	1	1.7	28.33	3.85	77	2
X22	12	20.0	29	48.3	15	25.0	4	6.7	0	0	21.73	3.82	76.4	3
X23	9	15.0	12	20.0	16	26.7	20	33.3	3	0.5	24.17	3.07	61.4	5
X24	25	41.7	21	35.0	12	20.0	1	1.7	1	1.7	41.00	4.13	82.6	1
Faculty of Physical Education - Alexandria University - Egypt														
X20	31	41.3	25	33.3	10	13.3	6	8.0	3	4.0	40.40	4.00	80	1
X21	31	41.3	9	12.0	20	26.7	11	14.7	4	5.3	30.26	3.69	73.8	5
X22	22	29.3	27	36.0	18	24.7	2	2.7	6	8.0	30.13	3.76	75.2	4
X23	39	52.0	9	12.0	8	10.7	9	12.0	10	13.3	48.13	3.77	75.4	3
X24	24	32.0	26	34.7	14	18.7	7	9.3	4	5.3	25.87	3.79	75.8	2
Faculty of EducationDepartment of Physical Education- King Faisal University - Saudi Arabia														
X20	47	74.6	11	17.5	5	7.9	0	0	0	0	49.14	4.67	93.4	1
X21	2	3.2	7	11.1	11	17.5	21	33.3	22	34.9	24.22	2.14	42.8	4
X22	35	55.6	19	32.2	8	12.7	1	1.6	0	0	41.83	4.40	88	2
X23	0	0	0	0	0	0	10	15.9	53	84.1	29.35	1.16	23.2	5
X24	32	50.8	24	38.1	7	11.1	0	0	0	0	15.52	4.40	88	2

**Chi-square is significant at the 0.05 level

Table 7: Significant differences between the three university in the scale axes test less significant difference LSD

Axes	University Name	SMA	Standard deviation	Direct degree	The Significant differences between the averages		
					Masaryk University	Alexandria University	King Faisal University
Firstaxis : Students Trends towards the profession of teaching physical education	Masaryk	3.66	0.185	High			
	Alexandria	3.69	0.539	High	0.196*		
	King Faisal	3.71	0.349	High	0.222*	0.026	
Second axis: Students Trends in Differentiation between the profession of teaching physical education and other professions	Masaryk	2.99	0.229	Low			
	Alexandria	3.39	0.645	Medium	0.497*		
	King Faisal	3.49	0.384	Medium	0.521*	0.023	
Third axis: The society trends towards the profession of teaching physical education	Masaryk	2.75	0.107	Low			
	Alexandria	3.54	0.611	High	0.722*		0.032
	King Faisal	3.43	0.350	Medium	0.690*		
Fourth axis: Students trends toward Factors affecting in choosing a teaching physical education profession	Masaryk	3.59	0.236	High			
	Alexandria	3.80	0.627	High	0.050		0.209*
	King Faisal	3.35	0.350	Medium			0.240*

axes using the least significant difference test LSD That the arithmetic average to total paragraphs of the Third axis respectively Alexandria University students with average (3.54) and then King Faisal University students with average (3.43) and then the University Masaryk students with average (2.75), which averages make high, Medium, and low degreeStraighttothe society trends towards the profession of teaching physical

educationand this is consistent with AbuTaameh (2006) study, Khasawneh (2006) study, Gaber, ElDeereeny (1985) studyWhich showed the role of community and social factors as one of the reasons affecting the teaching of Physical Education, and also Badr. (1975) study

The researchers believe that this high variability in the trends of society come from society's perception about the profession of teaching physical education and it's positive or medium- low or below the required level depending on the differences between the communities, cultures and social upbringing of members.

Unlike expected the look of Arab and Asian societies better than its European counterpart and more positiveand that contradicts with expectations and raises questions more than answers about how this happens and maybe the answer that the social and cultural heritage in the Arab countries and communities sanctify somewhat the teaching profession regardless of the material yield provided by the profession or because some Arab societies such as Saudi Arabia appoint students of the university after graduation reflecting the relatively positive look community about profession of teaching physical education.

Fourth Axis: Students Trends Toward Factors Affecting in Choosing a Teaching Physical Education Profession

seen from Table No.(7) which includes significant differences between the three universities in the scale axes using the least significant difference test LSD That the arithmetic average to total paragraphs of the fourth axis respectively Alexandria University students with average (3.80) and then Masaryk University students with average (3.59) and then the King Faisal University students with average (3.35), which averages make high, Medium degreeStraight to Students trends toward factors affecting in choosing a teaching physical education profession and this is consistent with El -Rashed (2003)study, Abu Salem (2010)study, Taher (1991)study,Who pointed to the need to enrich the student with amount of experience and the information concerning with the field of teaching in general with the need to develop standards and tests in which we can detect tendencies and abilities of students when they enroll faculties and departments of physical education and sports in various universities.

In this regard Jenkins, Jayne (2004) refer that the programs of prepared the teachers of physical education must present an integrated curriculums in order to teach future teachers teaching different models of curriculum related to physical education

The researchers believe that the strong trends toward factors affecting in choosing a teaching physical education profession refer to the characteristics of the profession and the surrounding circumstances, and its agreement with the characteristics and capabilities of mental and physical individual,also the highest percentage of agreement is between two universities students from the three universities is the phrase(I choose to join to program of teaching Physical Education because it gives me the area to join the profession of physical education teacher.), which refers to the self-belief,a strong desire and direction between the students sample toward factors affecting in choosing a teaching physical education profession.

CONCLUSIONS

1- There is a strong positive trend among student teachers in faculty of Sports Studies,at Masaryk University in Czech Republic Faculty of Physical Education at Alexandria University in Egypt, and the students in Department of Physical Education in faculty of Education at King Faisal University in Saudi Arabia about the profession of teaching physical education
2- The trend force is varied toward different axes which measurement include and the most difference of these responses is the third axis The society trends towards the profession of teaching physical education
3- The Arab societies are the most positive in there trends towards teaching profession and most convinced, preference in general for Western society, but that researchers cannot generalization the results to all Arab and Western societies, cause the study was limited to one European countries and only two Arab countries and generalization the results generally requires generalization of study sample of Arab and Western societies.

RECOMMENDATIONS

1- The need for a clear, specific criteria for admission of students in teaching departments and programs

in the faculties that would select the best suitable students to the teaching profession and in accordance with their affiliations, beliefs and desires

2- Work on developing the curriculum and courses that support the trend towards the teaching profession and in line with developments in the era of globalization and life variables based on the results of modern studies and distinct research
3- Need to hold lectures and continuing courses and provide teaching positions similar to the positions that might be exposed to the student teacher to know the problems and obstacles facing it. by the academics so the student can benefit from their expertise in solving problems
4- The need to direct the responsible for the implementation of programs their attention towards to identify the causes that lead to lower student responses about the teaching profession in some measurement axes and work to overcome these reasons.

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