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## The Impacts of Psychological Skill Training on Mental Toughness among Male Under 17 Project Football Players in Akaki Kaliti sub-city Addis Ababa Ethiopia.

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### Abstract

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**Keywords:** Mental Toughness, Psychological Skill Training, Male under 17 Project Football Players.

Psychological skills training program is effective in enhancing athletes' performance, positively influencing cognitive and affective states. The purpose of this study was to investigate the effects of Psychological skill training on Mental Toughness variables among male Under 17 football project players in Akaki Kaliti sub-city Addis Ababa Ethiopia. The methodology of the study employed an experimental research design. Thirty (30) male football player participants in the study were selected for the Mesale football project. The study subjects were randomly divided into two equal groups, the experimental group ( $n = 15$ ) and the control group ( $n = 15$ ). The experimental group had taken Psychological skill training intervention for 8 weeks with 3 sessions per week, each lasting 30 to 45 minutes. It consists of goal setting; self-talk, pep talk, imagery, progressive relaxation techniques, arousal regulation, and relaxation response techniques were given through 3 phases which comprise educational, acquisitions and practical phases by sports psychologists. Both groups had taken pre- and post-testing and all the subjects participated to response standard questionnaires: mental toughness was measured using Sport Mental Toughness Questionnaires (SMTQ-14). The data collected from the study subjects was analyzed using Statistical Package for Social Science (SPSS, version 20) software by descriptive statistics, paired t-test and independent t-test at a significant level of 0.05. Results showed Psychological skill training significantly improved the stated variables of mental toughness in the experimental group at ( $p < 0.05$ ). Furthermore, no more significant differences were found these variables in the control group ( $p > 0.05$ ). Based on this finding, it can be concluded that Psychological skill training has a positive impact on the improvement of mental toughness variable. Therefore, Psychological skill training is suggested for adolescent-age football players to improve psychological preparedness for athletic performance.

### I. INTRODUCTION

Applied sports psychology has developed greatly during the last 15 years at all levels of competitive sports. Many athletes and

coaches at all levels of competition used the findings of scientific study that emphasized the importance of mental preparation and its positive effects on the personality traits and

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performance of elite athletes throughout those years (Abraham Goshu & Dessalegn Wase, 2021). Psychological skill training (PST) is a vital part of training that helps athletes enhance their performance. Athletes' PST includes goal setting, concentration, focus, self-confidence, motivation, relaxation, and others. The above-mentioned skills are the most common and have a direct relationship with the athlete's achievement (Firdu, 2018).

According to Forlenza *et al.* (2018), The learning and implementation of traditional cognitive-behavioral tactics "to assist sports participants in the development of mental skills to achieve performance success and personal well-being." The importance of mental preparation in football settings has been attempted to be supported by research linked to the profile of great athletes, which revealed various psychological variables and qualities associated with success.

And also Thomas *et al.* (2017) also indicate mental preparation as an essential aspect of performance-improving success. Mental preparation and training are essential aspects of all sports which should be emphasized. Goal preparation, self-talk, imagery, and optimistic thinking, among various mental

preparation skills, are all important techniques that athletes and coaches can use to boost performance.

Several researchers (Gharayaghzandi, H., Dhghani, E. and Masoumi, 2014; Ali Rasti *et al.*, 2015) have suggested that mental training should be part of the athletic training programs for teenagers, along with physical training, to help them achieve better results in football competitions. They have argued that PST can enhance the performance and readiness of coaches and players, especially in the base age groups. Other researchers have proposed that psychological factors such as mental toughness, motivation and anxiety management should be addressed in the training and education of athletes, to enable them to cope with challenges and overcome obstacles (Miçoogullari & Ekmekçi, 2017).

Additionally, Some factors that may influence the effectiveness of PST practices are the duration, frequency, age, coach or psychologist's style, activity level and sport type of the participants (Dehghani & Ebrahimi, 2017). Future research should examine these factors and identify the psychological skills that can enhance mental

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toughness in football players who undergo 30-minute PST sessions.

To improve the psychological and sociological aspects of male football players, some studies have suggested that coaches and projects should include PST interventions in their training programs, adhere to the scientific method of applying psychological variables, and use psychological tests for selecting trainees (Abraham Goshu & Dessalegn Wase, 2021; Kebede Legesse & Mersha Melaku, 2022). They have also recommended that sports psychology consultants and other stakeholders should conduct more research and employ sports psychologists to assist athletes.

Different studies have been conducted on PST intervention in the world. But when it comes to the Ethiopian context, when the researcher tried to dig out the repositories of universities in the country, there was a lack of research conducted about PST intervention. Based on this, the research was designing a well-planned PST programme for male U-17 football project players to research the effect of PST on male U-17 football project players' mental toughness in Akaki Kality sub-city Addis Ababa Ethiopia to fulfill the recommended gaps.

## II. LITERATURE REVIEW

According to Mellalieu (2016), Mental toughness is defined as having a natural or developed psychological edge that allows you to: generally, cope better than your competitors with the many demands (competition, training, lifestyle) that sport places on a performer; specifically, be more consistent and better than your competitors in remaining determined, focused, confident, and in control under pressure. Mental toughness is a concept used to characterize some people's capacity to continue to fight for and achieve their goals in psychological situations where others "fall by the wayside" and fail. It is applicable in a variety of circumstances, including business, military action, the performing arts, rehabilitation from major surgery, terminal disease death, and high-level athletics (Hardy *et al.*, 2014).

The PST program has distinct implications for different named phases. Based on studies and methods, male football project players of PST were created from three distinct phases: education, acquisition, and practice (Boutcher & Rotella, 2017). Education phase the learning and use of psychological abilities comprise this phase. The development and enhancement of these abilities takes time.

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Teaching the players the value and advantages of the PST training program is crucial for improving their football performance. In this stage, the athlete becomes aware of the PST techniques for gaining psychological skills and realizes how critical it is to advance these abilities (Miçooğullari & Ekmekçi, 2017). The acquisition stage, which makes up the second half of the PST, concentrates on methods and approaches for picking up certain psychological talents (M. S. Jim Golby, 2006). The practice phase has three main goals: to automate skills through overlearning, to educate people on how to systematically integrate psychological skills into performance conditions and to replicate skills that people will wish to use in actual competition (Behncke, 2014).

### III. METHODOLOGY

The study employed an Experimental research design. Depending on the study objective there was pre and post-test data and manipulation of the cause and effect between independent (psychological skill training) and dependent variables (mental toughness). The target population of the study were 30 Mesale U-17 male football project players who attended regular training in Woreda 01

Akaki Kaliti sub-city Addis Abeba City, Mesale youth soccer team in the year 2015. A census/whole sampling method was employed to select these 30 male players. Among the selected players, half of them (15) were assigned to the experimental group, while the remaining 15 were assigned to the control group. The experimental and controlled groups were identified using simple random selection due to their similar characteristics.

The data were collected using Sport Mental Toughness Questionnaire (SMTQ-14) proposed by Golby and Sheard (2009). The SMTQ14 (Sheard et al., 2009) is a 14-item questionnaire that includes three sub-dimensions: 6 items for confidence, 4 items for constancy, and 4 items for control. Confidence sub-dimension assesses athletes' belief in their abilities to achieve goals and be better than others.

Constancy reflects determination, individual responsibility, an unyielding attitude, and the ability to concentrate. Lastly, the control sub-dimension is concerned with the perception that one is personally influential and can bring about desired outcomes with particular reference to controlling emotions (Sheard, 2010).

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The study used quantitative data analysis techniques to investigate the impact of psychological skill training programs on mental toughness levels in male players. Descriptive statistics like means and standard deviation were used to examine the data obtained from closed-ended questionnaires, pretest and post-test findings, and other sources in order to characterize the demographic features of the participants.

Additionally, paired samples statistical t-test was used to compare the difference of pre-test and post-test for control and experimental groups, and an independent t-test was used to compare the mean value of the experimental and control groups.

All data analyses were performed within a computer system using the Statistical Package for Social Science (SPSS), version 20. The p-values for statistical significance were considered at  $p \leq 0.05$ .

## IV. RESULTS

**Table 1: Demographic characteristics of participants**

Group	N	Age (in years)	Height (in meter)	Weight (in kg)
		Mean ± SD	Mean ± SD	Mean ± SD
EG	15	16.53±0.516	1.6913±0.06865	55.73±4.183
CG	15	16.13±0.834	1.7007±0.05378	56.27±3.411

**Table 2: Descriptive statistics of mental toughness variable**

Variables	Group							
	Experimental group				Control group			
	Pre		Post		Pre		Post	
	Mean	Std.	Mean	Std.	mean	Std.	Mean	Std.
I interpret potential threats as positive opportunities	1.73	.799	3.53	.516	1.73	.884	2.60	1.121
I have an unshakeable confidence in my ability	2.00	.655	3.73	.458	1.87	1.19	2.47	.516
I have qualities that set me apart from other competitors	1.93	.704	3.47	.640	2.00	.756	2.07	1.280

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I have what it takes to perform well while under pressure	1.93	.594	3.33	.617	2.47	.516	2.53	.516
Under pressure, I can make decisions with confidence and commitment	2.40	.910	3.80	.561	1.27	.458	2.27	.458
I can regain my composure if I have momentarily lost it	2.40	.632	3.60	.507	2.20	.862	2.27	1.163
I'm determined to finish the job at hand.	2.40	.507	3.67	.488	1.27	.458	2.27	.458
I accept accountability for establishing high standards for myself.	2.60	.737	3.93	.258	2.07	.704	2.53	.516
I give up in difficult situations	2.40	.632	3.53	.516	1.60	.828	2.20	.561
I get distracted easily and lose my concentration	2.27	.458	3.40	.507	1.73	.961	2.27	.458
I worry about performing poorly	2.47	.640	3.73	.458	1.53	.915	2.00	.000
I am overcome by self-doubt	2.33	.617	3.73	.594	1.27	.458	2.27	.458
Events that I cannot control or did not anticipate cause me anxiety.	2.27	.594	3.73	.594	1.27	.458	2.27	.458
When things don't work out the way I want them to, I become upset.	2.33	.816	3.73	.458	1.80	.775	2.13	.743
<b>Totally</b>	2.247	.249	3.63	.166	1.720	.380	2.296	.1780
		9	6	3		6		

**Table 3: Paired t-test for mental toughness variables**

Variables	Groups	Tests	Paired differences		95% Difference Confidence Interval		T	Sig.(2-tailed)
			Mean	Std.	Lowers	Uppers		
Mental toughness	EG	Post-pretest	1.395	.2099	1.2748	1.5067	25.781	.000
	CG	Post-pretest	-0.126	.2453	-.2400	.03051	-1.661	.119

**Table 4: Test of Independent Samples (t-test) comparing the control and experimental groups**

Before an intervention, the Levine's Test is performed to verify the assumption of equal variance between the two groups (EG and CG).

The F-test is used to test it. Table 4.4's Levine's Test for Equality of Variances findings demonstrated that all variables had equal variance between EG and CG. The p-value of Levine's assumption of equal variance is higher than 0.05, indicating that the assumption of equal variance between groups is met.

Equal variances assumed		
	Levene's Test for Equality of Variances	t-test for Equality of Means

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Variables	F	Sig.	T	Sig. (2-tailed)	Mean Difference	95% confidence interval for mean	
						Lower	Upper
Mental toughness	46.47	0.000	15.26	0.000	1.34286	1.1626	1.5231

## V. DISCUSSION

In a similar vein, these findings are corroborated by Dehghani and Ebrahimi's (2017) investigation into the impact of the Psychological Skills Training (PST) program, which revealed that female volleyball players who participated in the program had significantly higher mental toughness scores across all subscales than players who did not (Dehghani & Ebrahimi, 2017). Additionally, the findings of a research conducted in 2008 by Motesharee and his companion provided evidence that male badminton rookie players might acquire mental toughness through systematic psychological skill training programs (Motesharee & Farsi, 2008).

Furthermore, Micoogullari and Ekmekci (2017) examined the effects of the PST program on the mental toughness of 26 soccer players, ages 18 to 33, in order to determine how beneficial the program was. The study's conclusions showed that players' perceptions of athletes' mental toughness had improved (Miçooğullari & Ekmekçi, 2017). Additionally, this outcome supports the notion that Park and his pals (2023) Athletes can benefit from a variety of psychological skill training interventions that enhance mental toughness and convergence toward optimal performance (Park & Jeon, 2023).

Ali Rasti et al. (2015) 160 athletes, both male and female, representing eight different sports were chosen for the study and were split into two groups of four team and individual sports each. Futsal, volleyball, basketball, and football were the team sports, and individual sports included ping pong, karate, taekwondo, and swimming for players between the ages of 15 and 18 to test the MTP program's impact on the mental toughness of Tehran high school student-athletes. The study's conclusions showed that the athletes' mental toughness did increase. Gucciardi and his friends (2009) found that three youth-aged Australian football teams (15 and under 15 years old) benefitted from six weeks of psychological skills training (PST) packages, which improved the players' perceptions of mental toughness and improved their capacity to suppress negative thoughts (Gucciardi *et al.*, 2009b).

Additionally, Sheard and Golby (2006) evaluate how a psychological skills program affected student-athletes' psychological health and mental toughness. To evaluate mental toughness and other good psychological traits, they employed a variety of methods. They discovered that the participants' mental toughness, self-efficacy, self-esteem, and positive affect were all considerably raised by the psychological skills training. The

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notion that mental toughness is a positive psychological construct that fosters favorable psychological states is supported by the fact that they also discovered a positive correlation between mental toughness and each of the other positive qualities.

Contradictory to the findings of this study regarding mental toughness Lin and his friends

(2017) conclude that a psychological skill training program was not effective in changing mental toughness based on male football project players (Lin *et al.*, 2017). Also, another study by Clough (2002) concluded that they have considered mental toughness as a trait quality that cannot be developed and improved (Clough, 2002). Whereas, the present study shows that mental toughness was enhanced, if players use and practiced psychological skills training package.

### VI. CONCLUSION

Based on the result the following conclusions were enumerated: In the present study, the experimental group differed significantly from the control group. The intervention of eight weeks PST has a significant effect on the mental toughness variable level. So, the researcher can conclude that PST has a significant effect on mental toughness. Therefore, PST is suggested to project players in adolescent age groups and for team and individual sports to improve their mental status.

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