Ilkogretim Online - Elementary Education Online, 2020; Vol 19 (Issue 4): pp. 5794-5802
http://ilkogretim-online.org
doi: 10.17051/ilkonline.2020.04.764984

Physical And Psychological Factors Affecting Athlete's Performance

Dr. Ejaz Asghar[1], Associate Professor Isra Institute of Rehabilitation Science, Isra University Islamabad.

Noor Muhammad Marwat[2], Department of Sport Sciences and Physical Education Gomal University, Dera Ismail Khan (KP) Pakistan.

Dr. Alamgir khan[3], Department of Sports Sciences & Physical Education, University of the Punjab Lahore, Pakistan.

Ishrat Ali Virk, V[4]. Lecturer of Sports Sciences Bahauddin Zakariya University Multan, Pakistan.

Alia[5], M.Phil. Scholar Isra Institute of Rehabilitation Science, Isra University Islamabad.

Habib Ullah[6], M.Phil. Scholar Isra Institute of Rehabilitation Science, Isra University Islamabad.

Umar Farooq[7], M.Phil. Scholar Isra Institute of Rehabilitation Science, Isra University Islamabad.

Abstract

Purpose: Purpose of this particular study was to find out the effects ofphysical and psychological factors on the performance of athletes.

Methodology:A descriptive cross-sectional study was conducted in Faisalabad division of Pakistan. Researchers selected 100 athletes from different clubs of the division. Among the participants60-male and 40-female with age between 16 to 25 years were made part of the study.Researchers excluded injured athletes and pregnant athletesfrom the study. The data was collected through general demographics, DASS 21 scale used for measuring psychological and physical factors.Sample size was selected through Rao Soft formula with random sampling. The values were transferred to SPSS 21 for analysis. Descriptive statistics mean, standard deviation and percentage were used for analysis of the data.Results of the study have been presented through tables and graphs.

Main Findings: Results of the study have shown that physical and psychological factors badly effect the performance of athletes. Null hypothesis was rejected. The fitness level of participants was also affected. Co-ordination, strength, flexibility, speed and

enduranceeffects on the performance of 100 athletes who participated in the study were, 29.51±6.38 p<0.00,29.60±5.54, p<0.00, 213.21±18.56, p<0.01, 5.390±1.215, p<0.01, 2281.3±410.2, p<0.00 respectively. The results have been shown in Table-1.

Implication of the Study: Findings of the study shows that performance of athletes from Faisalabad, Pakistan is affected by the physical and psychological factors.Results of the study have concluded that the stress level of both the genders was normal, moderate level of anxiety and mild level of depression was observed. It is recommended that attention must be placed on the physical and mental health of athletes for better sport performance. The coach, trainer and management may seek help from the findings of the study to improve the performance level of sportsmen.

Novelty: The findings of the study will pave way for future researchers to recommend that athletes need to participate in fitness exercises as well as psychological coping for better results in performance in sports competitions. It will help a lot to minimize the chances of injuries and prevalence of anxiety among the athletes.

Keywords: Athletes, Depression, Anxiety, Stress, Factors, Co-ordination, Flexibility, Endurance, Fitness, Physical, Psychological.

Introduction: Physical ability to carry out activities that require physical actions, ranging from self-care (activities of daily living) to more complex activities that require a combination of skills, often with a social component or within a social context and mental health is the level of psychological well-being or an absence of mental illness. It is the state of someone who is "functioning at a satisfactory level of emotional and behavioral adjustment".High-quality, systematic studies on the nature and impacts of physical injuries in elite athletes—most notably, head injuries/concussion and limb injuries—have led to advances in how these injuries are optimally managed or, ideally, prevented. There is comparatively less research on, but growing interest in, the mental health and psychological wellbeing of elite-level athletes. The prevalence of diagnosable psychiatric disorders in this population remains a matter of debate however, notions that elite athletes are devoid of mental health problems have been increasingly scrutinized by sports medicine practitioners.Researchers for this vary purpose conducted cross-sectional study in Faisalabad division of Pakistan. Researchers selected 100 athletes from different clubs of the division. Among the participants60-male and 40-female with age between 16 to 25 years were made part of the study.Researchers excluded injured athletes and pregnant athletes from the study. The data was collected through general demographics, DASS 21 scale used for measuring psychological and physical factors.Sample size was selected through Rao Soft formula with random sampling. Descriptive statistics mean, standard deviation, p-value and percentage were used for analysis of the data.Results of the study have been presented through tables and graphs.

Objective of the study:

Main and sole objective of the study was to find the effects of physical and psychological factors on the performance of athletes from Faisalabad, Pakistan.

Hypothesis:

Ho1. There is no significant effect of physical and psychological factors on the performance of athletes from Faisalabad, Pakistan.

Literature review: The intense mental and physical demands placed on elite athletes are a unique aspect of a sporting career, and these may increase their susceptibility to certain mental health problems and risk-taking behaviors. Furthermore, the peak competitive years for elite athletes tend to overlap with the peak age for the risk of onset of mental disorders.In addition to physical and competition stress, elite athletes face a unique array of 'workplace' stressors, including the pressures of increased public scrutiny through mainstream and social media, limited support networks due to relocation, group dynamics in team sports and the potential for injuries to end careers prematurely.The ways by which athletes appraise and cope with these stressors can be a powerful determinant of the impact the stressors have on both their mental health and their sporting success.Athletes tend not to seek support for mental health problems, for reasons such as stigma, lack of understanding about mental health and its potential influence on performance, and the perception of help seeking as a sign of weakness.While there have been efforts to disseminate sport-related mental health findings in order to advance the prevention, identification and early treatment of psychopathology in elite athletes, there are suggestions that some sporting governing bodies continue to minimize the significance of mental ill-health in this population.Some, though not all, research suggests that this population has an increased risk of mental health problems, including eating disorders and suicide.A recent national survey of elite athletes in Australia found that almost half acknowledged symptoms of at least one of the mental health problems that were assessed, with prevalence rates similar to those reported in the community.Emerging research suggests that retired elite athletes may be at particularly elevated risk of mental ill-health, corresponding to both low rates of formal athlete mental health screening processes and player perceptions of inadequate availability of mental health support.

Methodology:

A descriptive cross-sectional study was conducted in Faisalabad division. Number of athletes selected from various clubs of division was 100. Among those athletes 60 were male and 40females. Age of the athletes varied between 16 to 25 years. Injured athletes and pregnant athletes were excluded from study. The data was collected through general demographics, DASS 21, scale used for measuring psychological and physical factors was obtained through different fitness test like: Speed Test (35 meters sprint), Cooper Test (12 min run) for cardio respiratory endurance, Standing Broad Jump for strength, Sit and Reach Test for flexibility, Wall Toss Test for Co-ordination. Selectionof sample size was made through Rao Soft formula with random sampling technique. The values were transferred to SPSS 21 for analysis. Descriptive statistics mean, standard deviation, p-value and percentage were used for analysis of the data.Results of the study have been presented through tables and graphs.

Results of the study:

Table: 1 Physical Fitness Tests

	Male			Female			Overall			
	N	Mean	±S.D	N	mean	±S.D	N	mean	±S.D	P.value
Wall toss test	60	28.10	7.69	40	31.33	5.98	100	29.51	6.38	0.00
Sit and reach test	60	28.00	6.20	40	33.18	5.07	100	29.60	5.54	0.00
Standing broad jump	60	240.57	18.49	40	186.1	19.07	100	213.21	18.56	0.01
35 m run test	60	5.327	1.160	40	5.616	1.144	100	5.390	1.215	0.00
12 mint run test	60	2420.9	356.4	40	214.2	464.3	100	2281.3	410.2	0.00

Table 1,Above table shows physical factors affecting the performance of athletes,results of fitness test inwhich mean, SD, of the 5 tests of, co-ordination, flexibility, strength, speed and endurance has been shown.

Figure-1

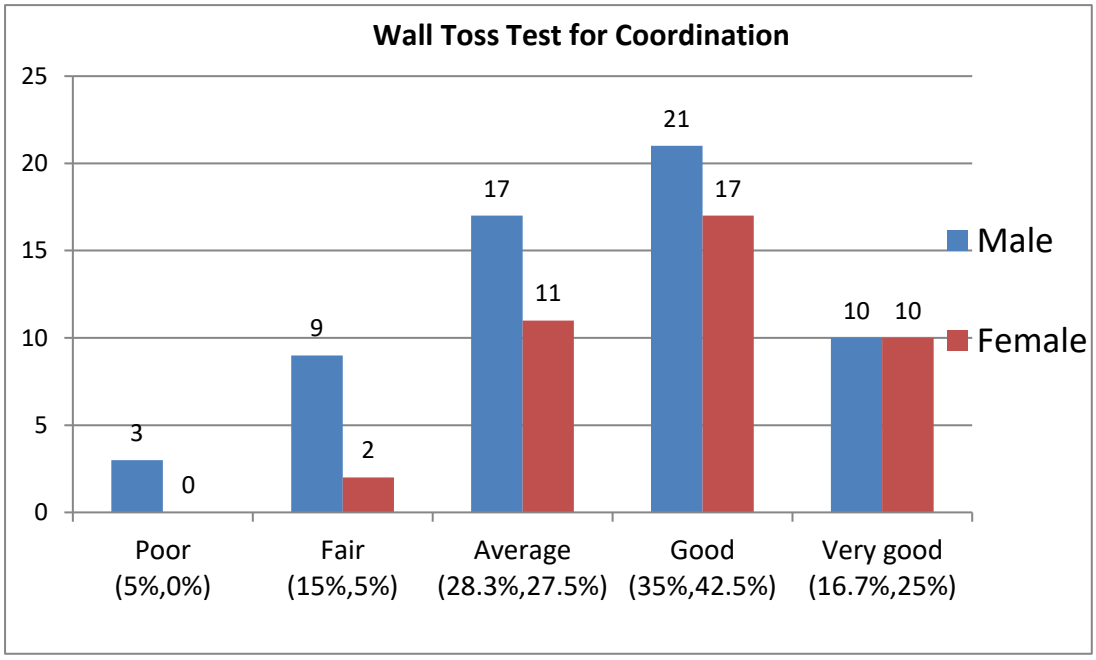


Figure 2

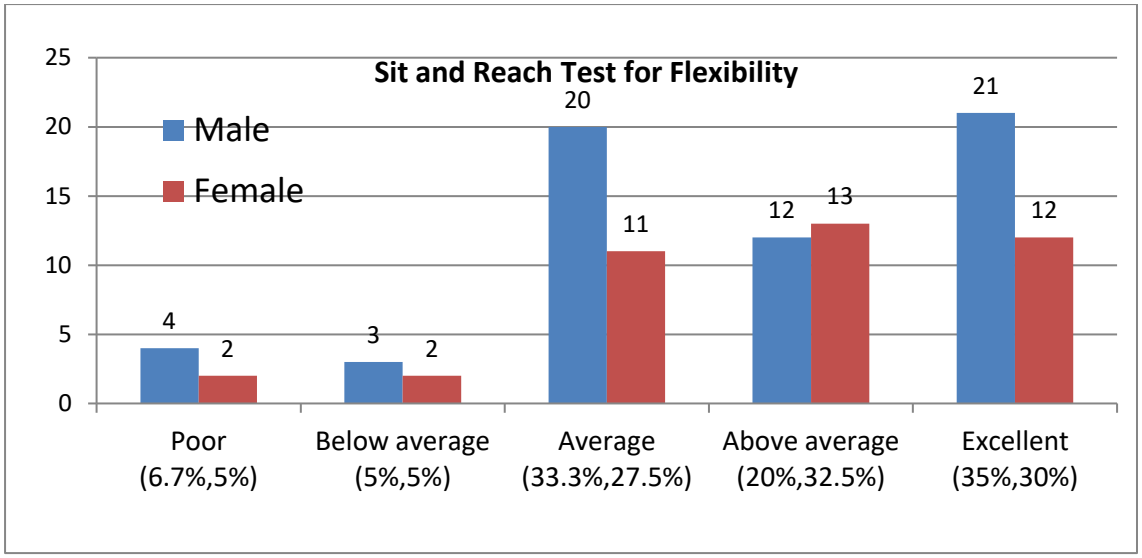


Figure 3

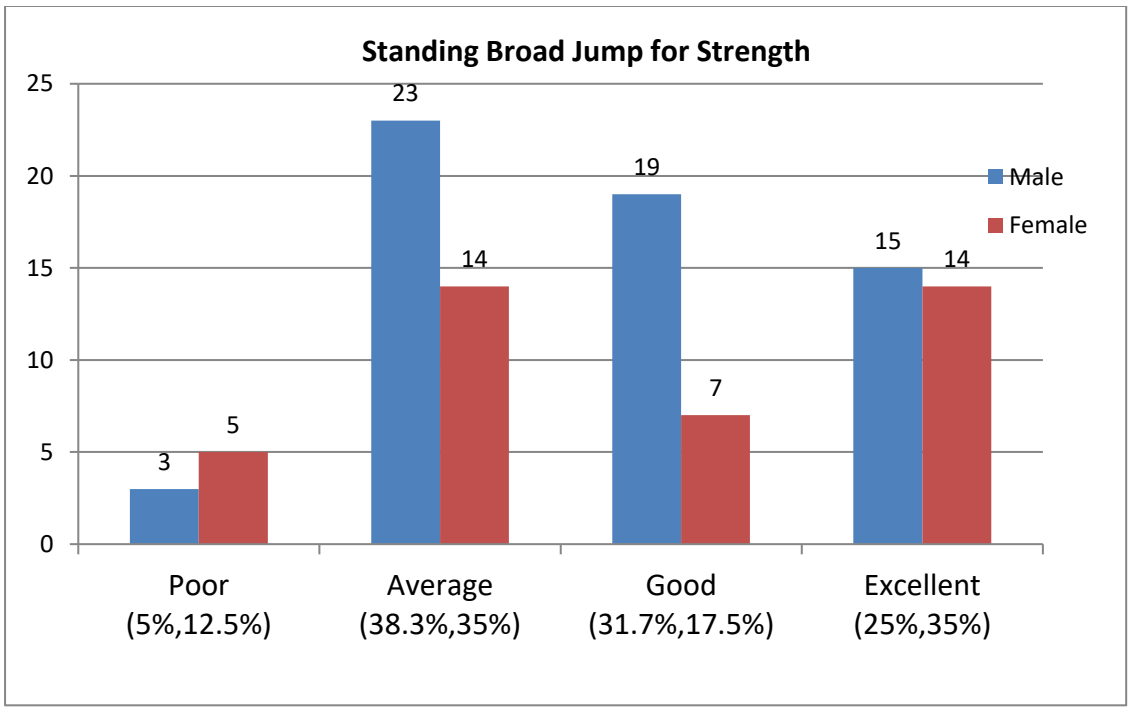


Figure 4

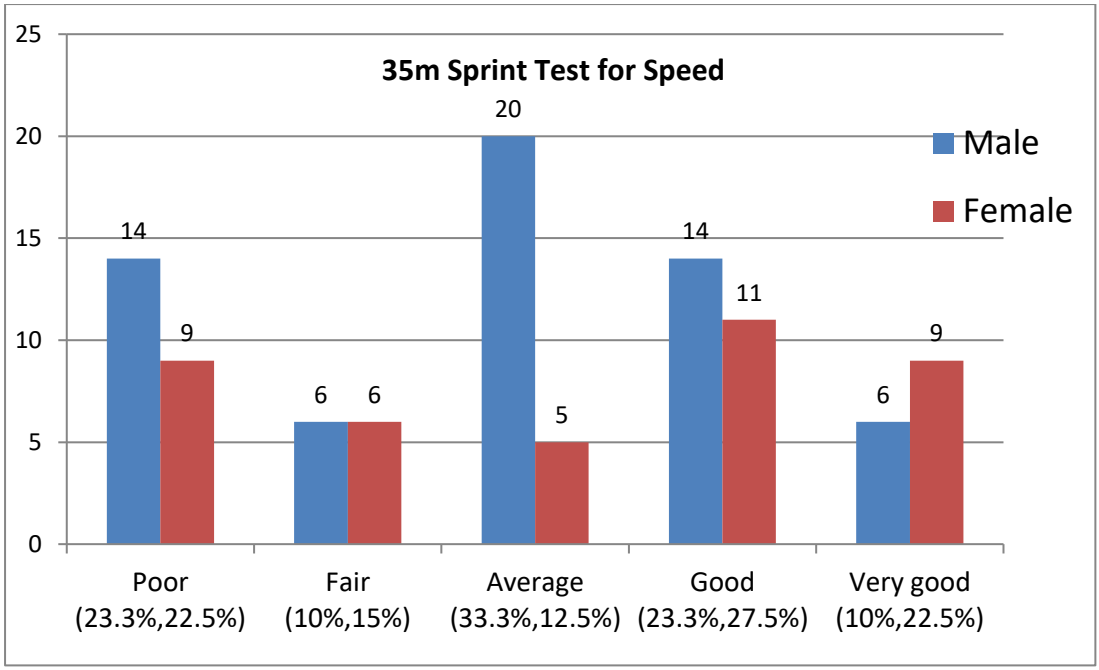


Figure 5

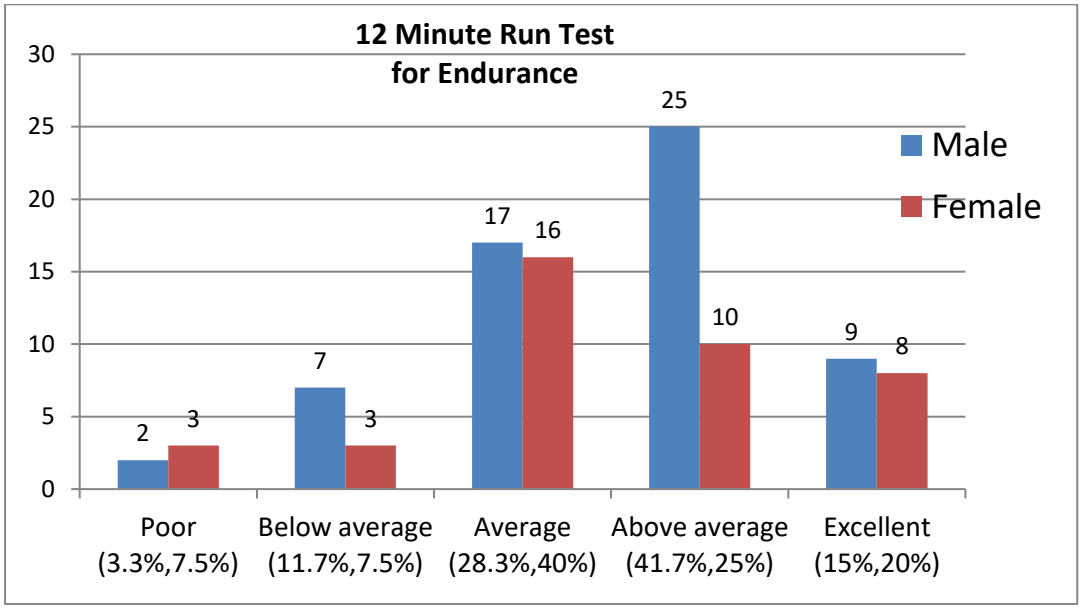
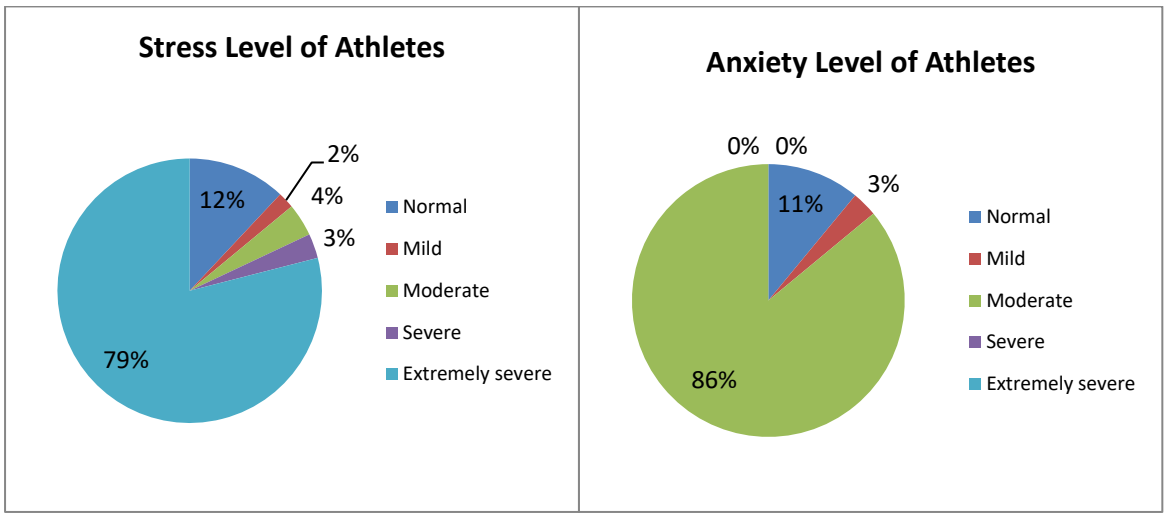
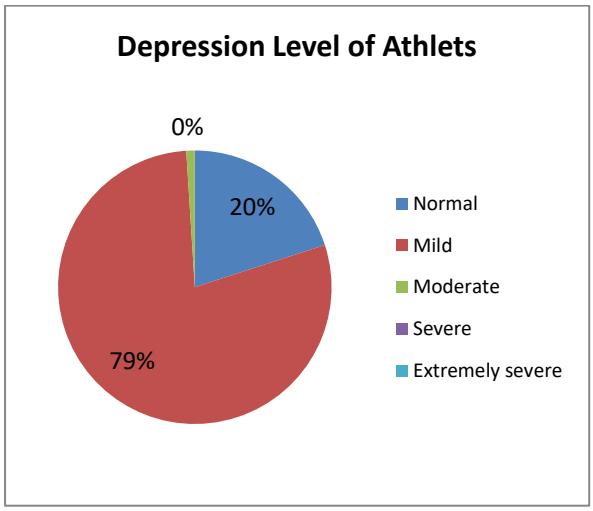


Table: 2 DASS 21 Total Score

Male			Female			Overall			
DASS21 Total score of stress									
N	Mean	±S.D	N	Mean	±S.D	N	mean	±S.D	P.value
60	10.18	2.824	40	10.44	2.794	100	10.31	2.809	0.00
DASS21 Total score of anxiety									

60	7.90	2.751	40	8.17	2.784	100	8.035	2.768	0.03
DASS21 Total score of depression									
60	10.16	1.851	40	9.40	2.113	100	9.78	1.982	0.01





Discussion:

A cross-sectional survey research was conducted in Faisalabad division, Pakistan. Speed Test (35 meters sprint), Cooper Test (12 min run) – for cardio respiratory endurance, Standing Broad Jump – for strength, Sit and Reach Test – for flexibility were applied. In sit & reach test mean value was 29.60, in standing board jump it was 5.7 meter, in shuttle run test mean value was 5.90, in wall toss test mean value remained 29.51 and in copper test mean value was calculated as 2281.3. Mean score of stress in participants was 10.31, mean score of anxiety was 8.03 and mean score of depression remained 9.78. Previous studies results have quoted that presence of mental and emotional illness like anxiety and depression, not only increases risk of injury in athletes, but it also makes the recovery process much more difficult. It has also been reported that athletes with a

pre injury history and mental health problems are at a greater risk of competition disturbances.Physical and mental health are essential components for athlete's better sport performance, Anxiety, depression and burnout are mental health disorders that are particularly common in the female athlete; unfortunately, the presence of one of these significantly increases risk of injury in athletes and impair their skill implementation and performance. Previous studies have reported that college level student-athletes show similar or higher rates of depressive disorders than college level non students' athletes. 21–28% of the varsity college student-athletes reported feeling depressed, and 31–48% felt overwhelming anxiety. Even worse, suicide was the cause of death of 7.3% of the National Collegiate Athletic Association student-athletes'. The prevalence of mental health issues among athletes can be linked to the high number of daily stressors that they face, if not well managed, in the long term could lead to mental illness. Athletes need to maintain fitness level and mental health, its demands necessary to succeed in their sports and deal with injuries while suffering public pressure to perform in their sports. For improvement of athlete mental health and better performance the stressors must be removed.

Conclusion:

Researchers from the results of study concluded that physical and mental health is essential components for better performance in sports competitions. Psychological and physical factors should be properly addressed and dealt for prompt competitive results.Study concluded that the stress level in athletes was normal, anxiety level was moderate and mild depression level was present in the targeted sample. Results of the study supported objective, while the hypothesis was rejected.Proper exercise protocol can change the player performance level and maintain the good quality of life.

Recommendations:

The findings of the study will pave way for future researchers and researchers strongly recommend that athletes physical and metal stressors must be removed to avoid exposure to injuries during sports competitions.

References

1. Allen SV, Hopkins WG. Age of peak competitive performance of elite athletes: a systematic review. Sports Med. 2015;45(10):1431–1441.
2. Ba¨r K-J, Markser VZ. Sport specificity of mental disorders: the issue of sport psychiatry. Eur Arch Psychiatry ClinNeurosci. 2013;263(2):205–10.
3. Bär K-J, Markser VZ. Sport specificity of mental disorders: the issue of sport psychiatry. Eur Arch Psychiatry ClinNeurosci. 2013;263(2):205–10.
4. Baron DA, Reardon CL, Baron SH. Clinical sports psychiatry: an international perspective. West Sussex: Wiley; 2013.
5. Baum AL. Suicide in athletes: a review and commentary. Clin Sports Med. 2005;24:853–69.
6. Bruner MW, Munroe-Chandler KJ, Spink KS. Entry into elite sport: a preliminary investigation into the transition experiences of rookie athletes. J Appl Sport Psychol. 2008;20(2):236–52.

7. Daley A. Exercise and depression: a review of reviews. J ClinPsychol Med Settings. 2008;15(2):140–7. 8. Peluso M, Andrade L. Physical activity and mental health: the association between exercise and mood. Clinics. 2005;60(1):61–70.
8. Fletcher D, Wagstaff CRD. Organizational psychology in elite sport: its emergence, application and future. Psychol Sport Exerc. 2009;10:427–34.
9. Glick ID, Kamm R, Morse E. The evolution of sport psychiatry, circa 2009. Sports Med. 2009;39(8):607–13.
10. Gulliver A, Griffiths KM, Christensen H, et al. Internet-based interventions to promote mental health help-seeking in elite athletes: an exploratory randomized controlled trial. J Med Internet Res. 2012;14(3):e69.
11. Gulliver A, Griffiths KM, Christensen H. Barriers and facilitators to mental health help-seeking for young elite athletes: a qualitative study. BMC Psychiatry. 2012;12(1):157.
12. Gulliver A, Griffiths KM, Mackinnon A, et al. The mental health of Australian elite athletes. J Sci Med Sport. 2015;18(3):255–61
13. Hamer M, Stamatakis E, Steptoe A. Dose-response relationship between physical activity and mental health: the Scottish Health Survey. Br J Sports Med. 2009;43(14):1111–4.
14. Hanton S, Fletcher D, Coughlan G. Stress in elite sport performers: a comparative study of competitive and organizational stressors. J Sports Sci. 2005;23(10):1129–41.
15. Hughes L, Leavey G. Setting the bar: athletes and vulnerability to mental illness. Br J Psychiatry. 2012;200(2):95–6.
16. Lazarus RS. How emotions influence performance in competitive sports. Sport Psychol. 2000;14(3):229.
17. McDuff DR. Sports psychiatry: strategies for life balance and peak performance. Arlington, VA: American Psychiatric Pub; 2012.
18. Nicholls AR, Polman RCJ. Coping in sport: a systematic review. J Sports Sci. 2007;25(1):11–31.
19. Noblet AJ, Gifford SM. The sources of stress experienced by professional Australian footballers. J Appl Sport Psychol. 2002;14(1):1–13.
20. Reardon CL, Factor RM. Sport psychiatry: a systematic review of diagnosis and medical treatment of mental illness in athletes. Sports Med. 2010;40(11):961–80.
21. Sundgot-Borgen J, Torstveit MK. Prevalence of eating disorders in elite athletes is higher than in the general population. Clin J Sport Med. 2004;14(1):25–32.
22. Wolanin A, Gross M, Hong E. Depression in athletes: prevalence and risk factors. Curr Sports Med Rep. 2015;14(1):56–60.
23. Wolanin A, Gross M, Hong E. Depression in athletes: prevalence and risk factors. Curr Sports Med Rep. 2015;14(1):56–60.
24. Woodman T, Hardy L. A case study of organizational stress in elite sport. J Appl Sport Psychol. 2001;13:207–38.