Anxiety and Depression Amongst Female Athletes

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Context: Anxiety (categorized by a feeling of fear, dread, and uneasiness) and depression (mood disorder causing feelings of persistent sadness and loss of interest in things an individual once loved) are two major mental health disorders effecting females considerably who participate in sport. Females are more likely to present with anxiety (55-60%)[1] and depression (1.844 times)[2] compared to males. The purpose of this study was to examine the prevalence between mental health comorbidities (anxiety and depression), across female athletes aged 18-40. **Methods:** An anonymous survey was distributed via snowball sampling using social media. Demographic data, Generalized Anxiety Disorder-7 (GAD-7), validated for use as a screening tool and severity measure across various settings and populations,[3] and Beck Depression Inventory-II (BDI-II), with high reliability (0.83-0.96)[4] were utilized. Analyses were conducted using SPSS with an Alpha level set at $p < 0.05$. Power calculation indicated a sample size of 84 participants. Frequencies and proportions were determined. Female athletes (n= 96, age: 22.47 ± 4.38 years, height 165.41 ± 7.51 cm, weight 64.15 ± 9.12 kg, BMI 23.48 ± 3.23) who were exercising for ≥5 days a week in an organized sport (i.e., clubs, teams, recreational), with total exercise volume of at least 8 hours per week met inclusion criteria. **Results:** A total of 96 out of 109 participants completed the survey (88.1% completion rate). Some participants did not complete all questions, however for the GAD-7 and BDI-II, only those who completed those specific sections in full were used for analysis (GAD-7, n=90, BDI-II, n=80). Of those, 58.9% (n= 53/90) of participants were categorized as meeting clinically meaningful values of anxiety using the GAD-7. Less than 1% of participants reported taking anti-anxiety medication. 39.8% (n=30/80) of participants were categorized as having clinically meaningful values of depression and only 18.2% (n=8/80) of participants reported taking anti-depressant medication. 10 (11.1%) participants yielded severe anxiety scores and 6 (7.2%) scored severe depression. To note, 34.4% (n=31/90) presented with a comorbidity of both anxiety and depression. The majority (74%, n=71/96) of our population were collegiate athletes. **Conclusions:** While our results are congruent with elevated anxiety and depression in female athlete populations, early identification (screening tools) and interventions are essential for a holistic landscape of the physical and mental health among female athletes. Clinicians should be prepared and equipped to recognize as well as assist with mental health comorbidities for quality patient centered treatment plans.