

## Supplementary discussion

*Dr. Sommer Hammoud: Can the trait of Resilience be acquired/taught? Please comment.*

**Authors' answer:** There is a large component of resilience that is natural—dependent on the individual and on their innate personality. In regards to the individual—this includes age, gender and intelligence; and in regards to one's personality this includes: “hardiness, locus of control, self-efficacy, self-esteem, optimism, hostility (component of type A personality) and type D traits (negative affectivity and social inhibition) (34). Aside from the above doctors that cannot be taught, there is a large component of resilience that can be acquired. This is related to one's previous experiences, any previous training on social skills, mental-self-awareness and largely due to coping mechanisms—further addressed in the next question. Finally, there is a large amount of literature available addressing “resilience training” teaching individuals or teams different skill sets they believe will strengthen and further hone their ability to overcome adverse situations (35).

*Dr. Sommer Hammoud: what are some examples of protective and harmful coping behaviors of athletes?*

**Authors' answer:** Athletes experience pressure regarding their performance and use various strategies to cope with their stress. Emotion-oriented and distraction-oriented coping behaviors can be harmful; whereas, task-oriented coping behaviors can be protective (36).

Some protective coping behaviors include: meditation, dependence and time spent with support systems, art, hobbies outside of their sports, therapy—many kinds and venting/expressing one's feelings (37). Some harmful coping behaviors include: drug use, alcohol use, poor sleeping habits—either over or under sleeping, partying and more

extreme examples include self-harm.

*Dr. Sommer Hammoud: What gaps in knowledge on this topic currently exist that most warrant our research efforts?*

**Authors' answer:** The majority, if not all, of the subsections and topics introduced in this paper deserve further investigation. There has been some research on mental illness in athletes, but there is scarce information on how it affects the FEMALE athlete. Our gender is unique from a biochemical, societal, intellectual, physical and emotional standpoint and all of these environmental factors significantly affect how we are affected and subsequently react to mental illnesses. A stronger understanding of this relationship can shed light on the additional topics introduced that also merit further investigation including: sleep habits, effects of social media on the female athlete's health, risk of injury, return to sport and the possibility and opportunity for interventions, support and even resilience training for female athletes.

## References

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