

THE POSITIVE EFFECTS OF RUNNING ON MENTAL HEALTH

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SUMMARY

Working as a team with patients who are also recreational runners and managing a running school in the City of Mostar had made us thinking on how recreational running affects the mental health in individuals. Previous literature is pretty old dated, so we found this even more interesting. We have wondered why there is no more recent literature on this subject. So, while working on this mini review and discussing on this subjects we came up with an idea on a research about self esteem and life quality of individuals pre and post running school experience.

Previous studies show that consistent running results in a number of positive psychological changes among diverse populations.

In a study of Kenneth E.C. ordinary nonprofessional runners were surveyed about the psychological aspects of running. Many of the respondents had started running to improve their health, and almost all noted mental and emotional benefits including relief of tension, improved self-image, and better mood.

Considering therapeutic effects of running Greist et al. define running as not expensive, and unlike some other treatments, it has beneficial physical side effects. Their results compare favorably with those of patients in psychotherapy and have persisted for at least one year in follow-up.

Taking in mind all of the previously published research it can be concluded that running can be a therapeutic tool for a series of negative psychological conditions, such as depression, anxiety, tension, mood changes, low self esteem etc. Although, these research are a few decades old there is still no recipe or dosage for running, especially in the area of physical illness prevention. There is much to research and to be discovered in this field.

Key words: running - mental health

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INTRODUCTION

Working as a team with patients who are also recreational runners and managing a running school in the City of Mostar had made us thinking on how recreational running affects the mental health in individuals. What got us thinking was discussing about the book written by McDougall C 2009; *Born to Run: A Hidden Tribe, Superathletes, and the Greatest Race the World Has Never Seen* (McDougall 2009). Previous literature is pretty old dated, so we found this even more interesting. We have wondered why there is no more recent literature on this subject.

Previous studies show that consistent running results in a number of positive psychological changes among diverse populations (Gary & Guthrie 1972, Jorgenson & Jorgenson 1979, Blumenthal et al. 1982). Most studies focus upon the benefits of running, reporting that a consistent running routine promotes both physical and mental fitness and can be an effective means of managing stress (Greist et al. 1978, Solomon

& Bumpers 1978, Wilson et al. 1980, Leer 1980, Gondola & Tuckman 1982).

In a study of Kenneth ordinary nonprofessional runners were surveyed about the psychological aspects of running. Many of the respondents had started running to improve their health, and almost all noted mental and emotional benefits including relief of tension, improved self-image, and better mood. About one half describe trance-like states, enhanced visual imagery, and creative episodes. Two thirds have experienced the familiar "runner's high" in slightly less than half of their runs. Several possible explanations for the high are described, including self-hypnosis, increased eNS norepinephrine, and increased endorphin release (Kenneth 1983).

Considering therapeutic effects of running Greist et al. define running as not expensive, and unlike some other treatments, it has beneficial physical side effects. Their results compare favorably with those of patients in psychotherapy and have persisted for at least one year in follow-up (Greist et al. 1978).

RUNNING COMPARED TO OTHER PHYSICAL EXERCISE ACTIVITIES

Babic et al. studies showed that physical education students tend to have lower level of psychological symptoms and better mental health status than medical students who are proven to have less physical activity and spend less time exercising (Babic et al. 2018).

Katic et al. prove that active participation of middle-aged women in dance recreational activities has a positive effect on their quality of life and contributes to a better life satisfaction (Katic et al. 2018).

Babic et al. suggest that exercise activities should be implemented during the entire period of pregnancy. They recommended for all healthy pregnant women during pregnancy and after childbirth. With permission moderate and controlled exercise is recommended by the physician under adequate conditions. It should be avoided only if there are signs indicating possible complications in pregnancy (Babic et al. 2019).

PLACEBO EFFECT

Some researchers suggest that positive outcomes of running on mental health are only the result of a placebo effect. Conclusions of the Szabo and Abraham study are that psychological benefits of recreational running may be linked to placebo (conditioning and/or expectancy) effects (Szabo & Abraham 2012).

THERAPEUTIC EFFECTS OF RUNNING

Keating et al. studies conclude that aerobic exercise in a supportive group setting may improve mood symptoms in youth and adults with complex mood disorders, and perceived social support may be an important factor in programme's success. But, they suggest that further research is required to identify specifically the mechanisms underlying the therapeutic benefits associated with exercise-based therapy programmes (Keating et al. 2012). This is in good correlation with previously mentioned studies (Greist et al. 1978).

LIMITATIONS OF PREVIOUSLY CONDUCTED STUDIES

There are no large scale studies on pre and post running life effects on mental health in recreational, non-elite runners.

There are no clear evidence of the physiology mechanism that explains the positive effects of running on mental health.

RECOMMENDATIONS FOR FUTURE STUDIES

To assess the limitation concerning pre and post running life effects on mental health in recreational,

non-elite runners. That will make it possible to compare with previous results and determine the actual effects and positive changes.

To find a clear link between the physiological mechanisms that outcome with positive effects of running on mental health.

DISCUSSION

Taking in mind of the previously published research it can be concluded that running can be a therapeutic tool for different negative psychological conditions, such as depression, anxiety, tension, mood changes, low self esteem etc (Kenneth 1983). There are studies suggesting similar effects of other types of physical exercise and there are also some recent studies suggesting the possibility of placebo effect (Babic et al. 2018, Katic et al. 2018). That is possible in any kind of therapy, so these studies on placebo effect possibility should be taken with caution, until, at least large scale studies provide the relevant evidence. Comparing running with other physical activities in some domains is legitimate, but not in full because of specific response of human organism to running, as some believe we are born to run. This is true if we look at these couple of facts; humans stand erect on their two feet, have very well developed musculoskeletal and articular system, lungs that are enough capacitive, efficient cardiac output and probably most important element is that humans have an excellent mechanism of adapting to heat. All of this makes humans naturally built for long distance running. Mental benefits of running are like the icing on the cake. The best example of this claim are Tarahumara Native Mexican tribe in the Mexican Copper Canyons. They live running to the fullest and in combination with their diet not changing for centuries actually have no diabetes or colon cancer in their population (McDougall 2009).

Although, many of research concerning running and mental health are a few decades old there is still no recipe or adequate „dosage“ for running, especially in the area of physical illness prevention and therapy. There are many possibilities if correct guidelines are provided.

There is much yet to research and to discover in this field, as many authors of previously published studies suggest. As a group of authors working together we hope to provide some relevant evidence in this field. So, while working on this mini review and discussing on these subjects we came up with an idea on a research about self esteem and life quality of individuals pre and post running school experience. In the end, I quote Mr McDougall, because maybe the truth lies somewhere near his thinking: “You don't stop running because you get old, you get old because you stop running.” (McDougall 2009).

CONCLUSION

Running is efficient tool in prevention and therapy in different psychological conditions.

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Vedran Markotić: Design of the manuscript, literature search and literature data analyses.

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Mario Babić: Design of the manuscript, literature searches, literature data analyses.

Dorijan Radančević: Literature searches and literature data analyses.

Maki Grle: Literature searches and literature data analyses.

Miro Miljko: Literature data analyses.

Vilma Kosović: Literature data analyses.

Ivan Jurić: Literature data analyses.

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