

Critical Appraisal Part I

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This paper aims to look at the efficacy of physical exercise as a complementary treatment for managing cognitive symptoms of schizophrenia. The rationale for this is to see if exercise is worth adding to a patient's treatment plan. This is significant as it may be a useful tool for patients with schizophrenia. It is relevant to nursing as a nurse needs to be able to make an informed decision about adding the topic of exercise to their patient teaching or not.

The question posed is 'does physical exercise (I) for patients with schizophrenia (P) reduce cognitive symptoms (O) compared to patients with schizophrenia who do not exercise regularly (C)?'

A search of literature was done using Loyalist College Library's Catalyst for titles containing schizophrenia, AND physical exercise OR exercise, AND mental OR cognitive OR brain function. Filters used were: Available online, articles, English language, and published from 2020-2026. This returned 45 results which were filtered by excluding review articles, reducing it to 40 results. These 40 were furthered by source to include only articles from the databases PubMed Central, ProQuest Central, and Gale academic OneFile, reducing results to 26. Of these 26, all titles were read for relevance, and nine articles were chosen and pinned. These nine articles were all opened and preliminarily read over. Finally, three articles were chosen for their relevance and readability (one article was chosen from each database).

In conclusion multiple forms of exercise were shown to improve both physical function (Mane et al., 2020) as well as cognitive function (Pujol et al., 2020), (Khonsari et al., 2021) in patients with schizophrenia. These studies looked at patients engaging in physical exercise in addition to conventional forms of treatment for schizophrenia, compared to patients only engaging in the conventional treatment. All three studies demonstrated similar findings, namely that some form of exercise can be beneficial when added to a patient's schizophrenia treatment (Table 1).

Appendix

Table 1
Literature Table

Reference	Research Question/Study Purpose	Concepts/ Variables/ Theoretical Framework	Philosophical Perspectives		Methodology & Methods	Findings
			Ontology	Epistemology		
Mane et al. (2020)	Investigate how combining cognitive remediation with physical exercise impacts symptoms associated with schizophrenia.	Adding physical exercise to the treatment of patients with schizophrenia may help reduce overall symptoms.	Objectivism	Post-positivist	Randomized controlled trial involving patients with schizophrenia being split into two groups. One group got cognitive remediation and physical exercise. The other cognitive remediation only. <i>Functional ability</i> was measured after intervention.	Patients getting physical exercise did have better functionality compared to the non-exercise group.
Pujol et al. (2020)	Investigate how combining cognitive remediation with <i>aerobic</i> physical exercise impacts patients who have had multiple episodes of schizophrenia.	Adding <i>aerobic</i> exercise to the treatment of patients who have had multiple episodes of schizophrenia may help reduce <i>cognitive</i> symptoms.	Objectivism	Post-positivist	Randomized controlled trial involving patients with schizophrenia being split into two groups. Specifically, patients with multiple episodes of schizophrenia or schizoaffective disorder. One group got cognitive remediation and aerobic exercise. The other cognitive remediation only. with multiple episodes of schizophrenia or schizoaffective disorder Cognitive assessments were performed after the intervention.	Patients getting aerobic exercise did have better on cognitive assessments compared to the non-exercise group.
Khonsari et al. (2021)	Investigate how combining standard treatment for schizophrenia with physical exercise impacts cognitive symptoms of the illness.	Adding physical exercise to the treatment of patients with schizophrenia may help reduce specifically <i>cognitive</i> symptoms.	Objectivism	Post-positivist	Randomized controlled trial involving patients with schizophrenia being split into two groups. One group got standard treatment and physical exercise. The other got standard treatment only. Cognitive assessments were performed after the intervention.	Patients getting physical exercise did have better on cognitive assessments compared to the non-exercise group.

References

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