

# Let's get moving – Sport and Exercise Therapy in the Treatment of Mental Illness

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## Introduction

As a complementary or stand-alone intervention, sport and exercise therapy (SET) has been shown to reduce psychiatric symptom severity and to exert therapeutic and preventive effects on physical comorbidities. Therefore, treatment guidelines recommend the integration of exercise therapy as a complementary approach in a multimodal treatment. Due to inconsistent data on SET engagement rates and its uncertain role in promoting physical activity, further investigation into its clinical contribution is warranted [1, 2].

## Hypotheses:

**H1:** There is a significant difference in the mean number of minutes of daily physical activity between the three time points (baseline, end of treatment, 12-week after discharge).

**H2:** There is a significant difference in the mean number of minutes of exercise activity between the three time points (baseline, end of treatment, 12-week after discharge).

**Table 1: Sample characteristics (n = 22)**

Characteristic	Category	
Sex	men	7 (32 %)
	women	14 (63 %)
	non-binary	1 (5 %)
Age M (SD)	42,27 (12,29)	
Diagnosis	F32.1	1 (5 %)
	F32.2	2 (9 %)
	F33.1	9 (41 %)
	F33.2	8 (36 %)
	F43.1	2 (9 %)

## Methods

Patients (age  $\geq 18$  years, all genders) in partial- or full-time inpatient treatment at a psychotherapeutic and psychosomatic specialist clinic in Lower Saxony, Germany are examined by online self-report questionnaire. This is a non-controlled longitudinal study design with 3 time points ( $t_0$  start of treatment,  $t_1$  end of treatment, 12 weeks after the end of treatment  $t_2$ ). Patients participate in SET as part of their treatment. Daily physical activity and exercise activity in minutes per week are measured [3].

## Preliminary Results

The Friedman test revealed no significant differences in daily physical activity levels ( $\chi^2(2) = 5.5, p = .063, W = 0.13$ ). In contrast, the Friedman test revealed significant differences in exercise activity levels ( $\chi^2(2) = 15.73, p < .001, W = 0.36$ ). Post-hoc comparison with Bonferroni correction showed significant differences between  $t_0$  (MD = 22.5 min/week) -  $t_1$  (MD = 199.23 min/week) with  $p = .001, r = 0.788$  and  $t_1 - t_2$  (MD = 62.5 min/week)  $p = .025, r = 0.562$ .

**Table 2: Descriptive Statistics and Friedman Test Results**

Physical activity in min/week n = 22	$t_0$	$t_1$	$t_2$	p
<b>Daily physical activity</b>				
M (SD)	481.32 (558.61)	543.50 (468.01)	763.86 (785.38)	.063 <sup>a</sup>
MD	317.50	377.50	515.00	
<b>Exercise activity</b>				
M (SD)	101.59 (187.12)	221.42 (137.38) <sup>b</sup>	149.32 (224.91)	<.001*** <sup>a</sup>
MD	22.5	199.23	62.5	

<sup>a</sup> Friedman test

<sup>b</sup> Consists of exercise activities in leisure time M = 53.41 (109.08) and the documented SET minutes M = 168.02 (85.88). SET includes strength and endurance-oriented fitness training, pilates, yoga, table tennis, badminton, football, volleyball, neuroathletics, chair gymnastics, darts, therapeutic climbing, archery and boxing.

\*\*\*  $p < .001$

## Conclusion

**Exercise activity levels increased significantly during inpatient treatment**, with patients successfully achieving the WHO recommendation of at least 150 minutes of physical activity per week. The increase was primarily driven by structured SET supervised by qualified exercise professionals. **However, a significant reduction in exercise minutes was observed 12 weeks post-discharge**, suggesting patients face substantial barriers in maintaining active lifestyles once clinical supervision ends. These findings highlight a critical need for enhanced discharge planning and transitional support to bridge the gap between clinical SET and long-term community-based activity. The current study is limited by a small sample size from a single centre and the absence of objective intensity measurements. Further longitudinal research with larger cohorts is essential to identify effective strategies for sustaining physical activity levels following the treatment of mental illness.

## References

[1] Brehm, K., Dallmann, P., Freyer, T., Winter, K., Malchow, B., Wedekind, D., ... Ströhle, A. (2019). Angebot und Inanspruchnahme von Sporttherapie in psychiatrischen Kliniken in Deutschland. *Der Nervenarzt*, 91(7), 642–650. doi:10.1007/s00115-019-0782-7 [2] Ehrbar, J., Brand, S., Colledge, F., Donath, L., Egger, S. T., Hatzinger, M., ... Gerber, M. (2018). Psychiatric In-Patients Are More Likely to Meet Recommended Levels of Health-Enhancing Physical Activity if They Engage in Exercise and Sport Therapy Programs. *Frontiers in Psychiatry*, 9, 322. doi:10.3389/fpsy.2018.00322 [3] Fuchs, R., Klaperski, S., Gerber, M. & Seelig, H. (2015). Messung der Bewegungs- und Sportaktivität mit dem BSA-Fragebogen: Eine methodische Zwischenbilanz. *Zeitschrift für Gesundheitspsychologie*, 23(2), 60-76. doi: 10.1026/0943-8149/a000137.