

# Dutch Study Compares Running Therapy to Antidepressant Treatment

A study published in May of 2023 compared the treatment outcomes of structured Running and SSRI Antidepressant Therapies for patients with diagnosed anxiety and depression disorders. There were 141 participants.

Talk to a licensed healthcare provider you trust about improving your mental and physical health.



[Link to YouTube Video](#)

| [Link to Blog Post](#)

| [Link to Research Paper](#)



# Anxiety and Depression Are Common

- In a [2023 survey](#), 32.3% of American adults reported symptoms of anxiety or depression disorders
- Rates tend to be higher among younger adults, and lowest among senior citizens
- A & D [significantly increase](#) all cause mortality risk.  
Recurrent depression [reduces life expectancy](#) by 7 to 11 years.

## Share of Adults Reporting Symptoms of Anxiety and/or Depressive Disorder, February 2023

### All Adults

All Adults 32.3%

### Age

18-24

49.9%

25-49

38.0%

50-64

29.3%

65+

20.1%

NOTE: Adults having symptoms of depressive or anxiety disorder were determined based on having a score of 3 or more on the Patient Health Questionnaire (PHQ-2) and/or Generalized Anxiety Disorder (GAD-2) scale.

SOURCE: KFF analysis of U.S. Census Bureau, Household Pulse Survey, 2023

KFF



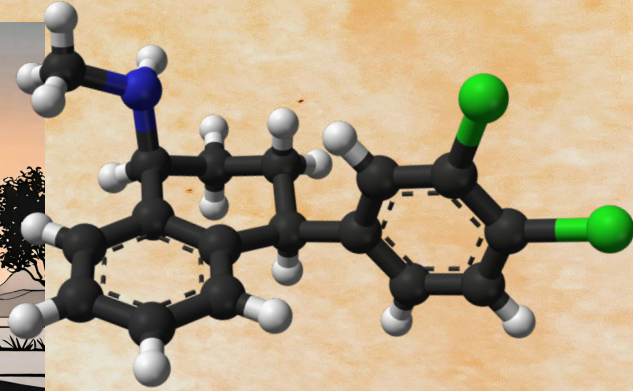
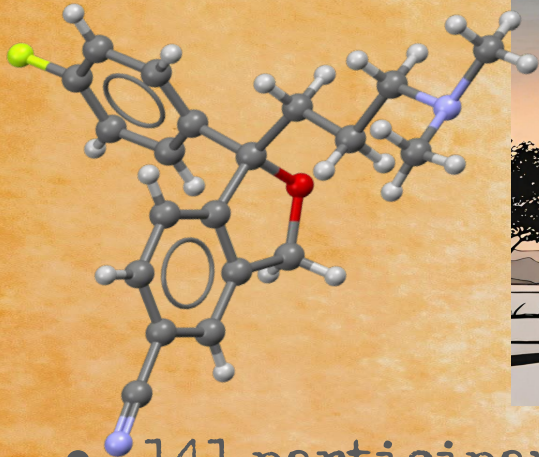
# Exercise and SSRI Antidepressant Therapies Have Been Effective in Past Studies

- Cardiovascular disease, obesity, and diabetes are often comorbid with depression and anxiety disorders
- Some SSRIs can have side effects of increasing weight and markers of inflammation in some patients
- Exercise therapy has the potential to improve both mental health and other physical health symptoms

Causes of death	Depression	Anxiety disorders
Unnatural causes		
Suicide	11.36 (10.25–12.52)	2.44 (2.11–2.80)
Accident	4.02 (3.57–4.51)	2.60 (2.24–3.01)
Homicide	2.57 (1.30–4.62)	2.34 (1.02–4.67)
Natural causes		
Respiratory disease	2.07 (1.51–2.77)	1.31 (0.82–1.99)
Cancer	0.82 (0.72–0.92)	0.88 (0.73–1.03)
Digestive condition	1.71 (1.45–2.00)	2.00 (1.63–2.44)
Cardiac disease	1.75 (1.49–2.06)	1.50 (1.20–1.86)
Other disease	1.59 (1.50–1.69)	1.39 (1.28–1.51)



# Participants



- 141 participants age 18 to 70 with a diagnosis of an anxiety disorder, depressive disorder, or both.
- Participants also had sedentary lifestyles and no antidepressant use for at least two weeks prior
- Exclusionary criteria included pregnancy, suicide risk, and health conditions or disabilities that precluded exercise or antidepressant use



# The Study Period of 16 Weeks Had Two Groups

## Running Group

- 96 participants (83 self-selected, 13 random)
- Required to complete at least 23 45-minute outdoor group sessions over the course of the study
- At-home make up sessions were allowed
- Supervised by professional trainers
- Received day-one education on safety, stretching, and nutrition
- Intensity was slowly ramped from low to moderate

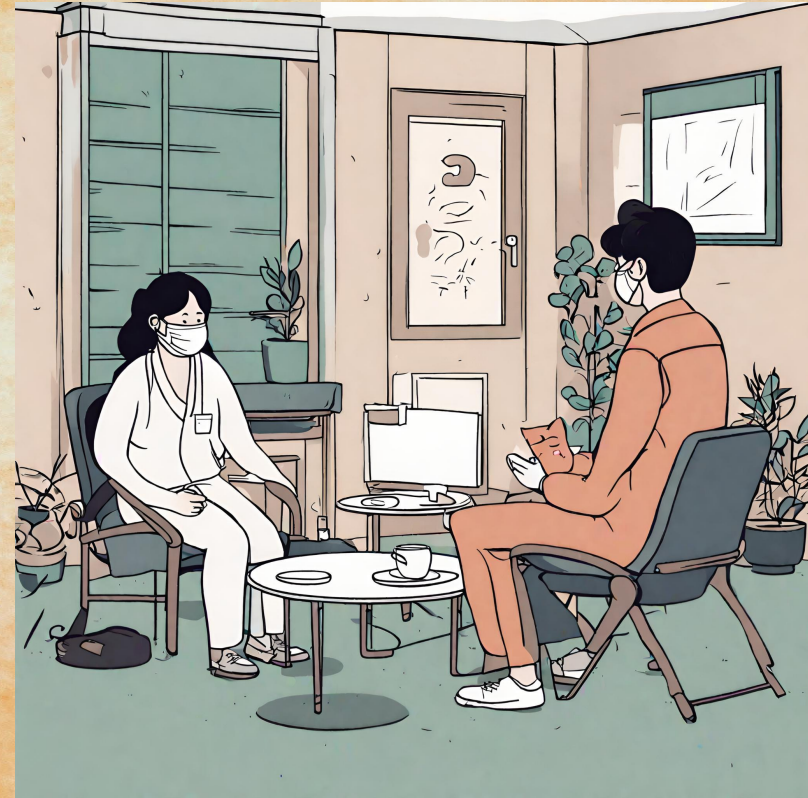
## SSRI Group

- 42 participants (36 self-selected, 9 random)
- Met with a psychiatrist at the start of the study and then at weeks 2, 6, 10, and 16 to optimize prescription and dosage
- First treatment was with Escitalopram (Lexapro in the US)
- If first treatment was ineffective or poorly tolerated, participants were transitioned to Sertaline (Zoloft in the US)



# Other Treatment Details

- Complete physical and mental health assessments were performed at Weeks 1 and 16
- Participants were paid 50 Euros at the initial and final assessments
- Self-report questionnaires were completed at weeks 6 and 10
- Clients were allocated 5 or more psychotherapy sessions over the course of the study
- Clinical care was continued after the end of the study





# Mental Health Treatment Outcomes Were Similar

- 82.2% completion in SSRI Antidepressant group
  - 44.8% achieved remission
- 52.1% completion in Running Therapy group
  - 15% never started
  - 17% Completed 8 sessions or less
  - 43.3% achieved remission
- The worst adherence was in younger participants with high symptom severity

	Running therapy (n=96)	Antidepressant use (n=45)	Cohen's d	p-Value
<i>Mental health outcomes</i>				
Remission (% no diagnosis at T16)	43.3 (5.8)	44.8 (8.3)	0.02	.881
Response (50% reduction on IDS-SR)	30.3 (5.1)	34.2 (8.9)	0.07	.730
Response (50% reduction on BAI)	32.4 (6.4)	47.2 (9.8)	0.26	.196



# Physical Health Outcomes Were Much Better in the Running Therapy group

Several measured physical health factors significantly improved in the Running Therapy group, but were worse or unchanged in the Antidepressant Therapy Group

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## Running Group

- V02 Max +2.1
- Weight -1.3 lb (-0.6 kg)
- Systolic BP -2.5
- Heart Rate -3.4
- Waist -0.6 in (-1.6 cm)
- HR Variability +1.2

## Antidepressant Group

- V02 Max -0.3
- Weight +7.3 lb (+3.3 kg)
- Systolic BP +3.8
- Heart Rate -0.1
- Waist +0.6 in (+1.5 cm)
- HR Variability -14.4



# Future Implications

- The standard of care received was very high and comprehensive relative to what's available to the vast majority of patients in the United States
- Adherence was much better in the Antidepressant treatment group, but physical health outcomes were much better in the Running therapy group
- The running sessions were completed outdoors and in groups. Both factors have been shown to increase mental health improvements from exercise.
- As Dr Danvers notes, it's almost certainly worthwhile to use other types of exercise that are accessible to mobility impaired patients.





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