

Enhancing Student Well-being: the Impact of a Mindfulness-Based Program (Mind7+) on Stress, Anxiety, Sleep Quality, and Social Interactions in a sample of Portuguese University Students.

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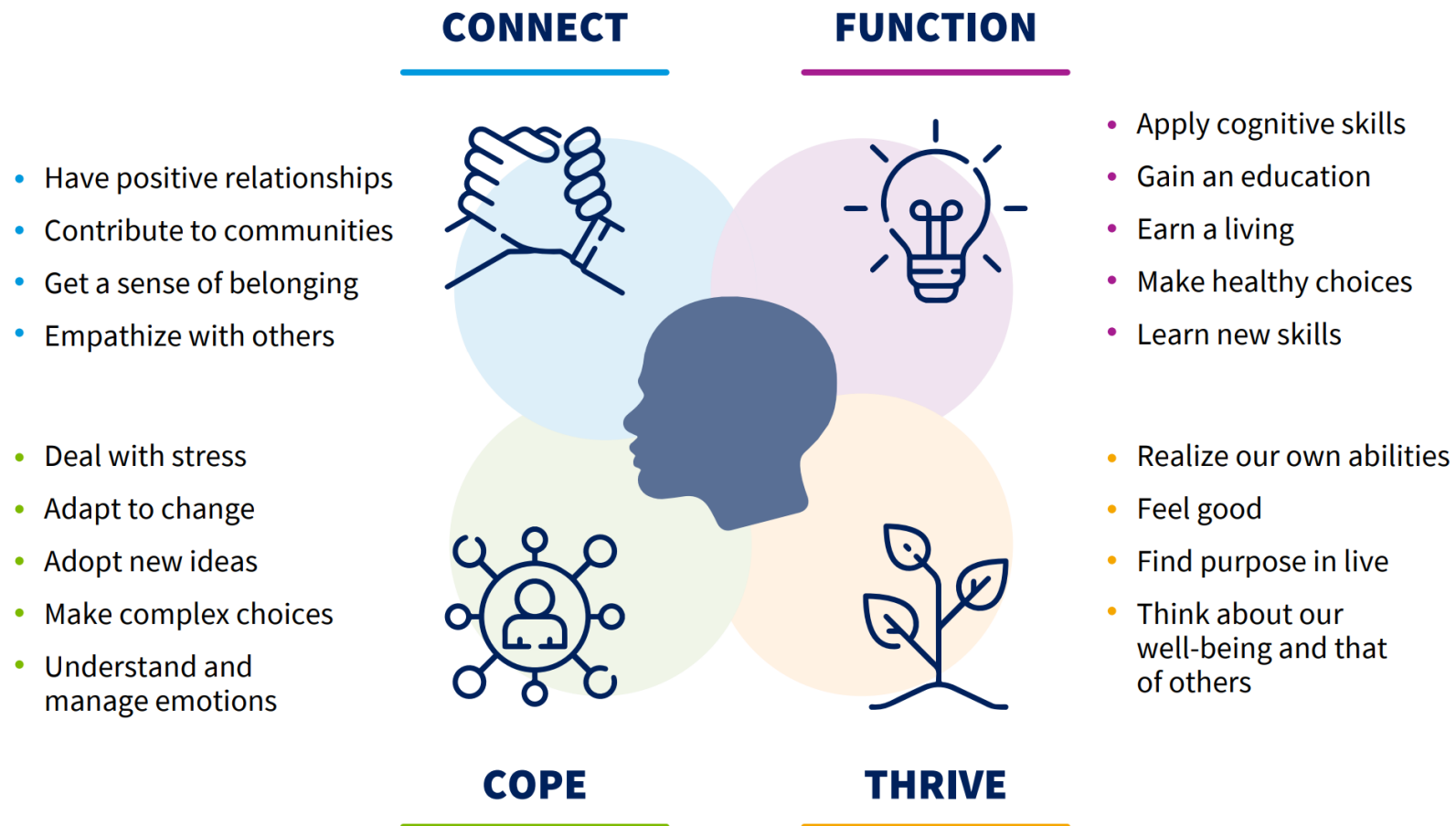
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Why
Mindfulness-
based programs
to promote
mental health?



Mental health has intrinsic and instrumental value, helping us to connect, function, cope and thrive



BUT...

Mental Disorders are a big concern in our society

The global prevalence of mental disorders in 2019

970 million
people living with
mental disorders



52.4%
females



47.6%
males

31.0%

Anxiety
disorders

28.9%

Depressive
disorders

11.1%

Developmental disorder (idiopathic)

Attention-deficit/hyper-activity disorder **8.8%**

Bipolar disorder **4.1%**

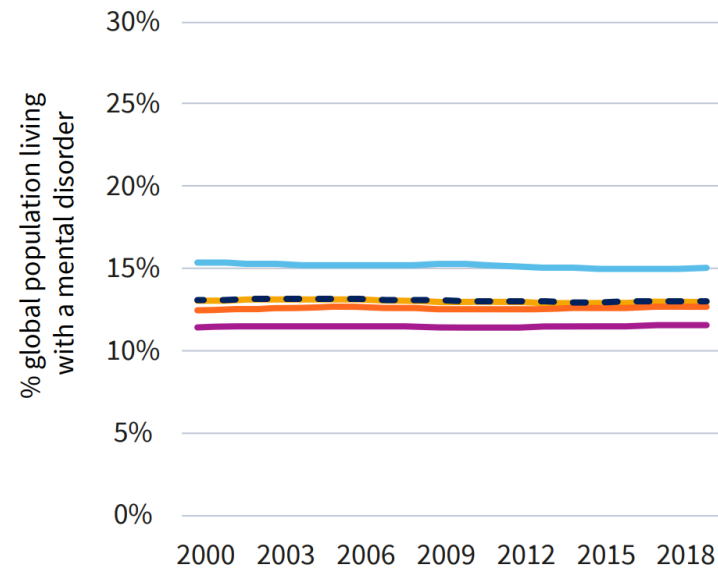
Conduct disorders **4.1%**

Autism spectrum disorders **2.9%**

Schizophrenia **2.5%**

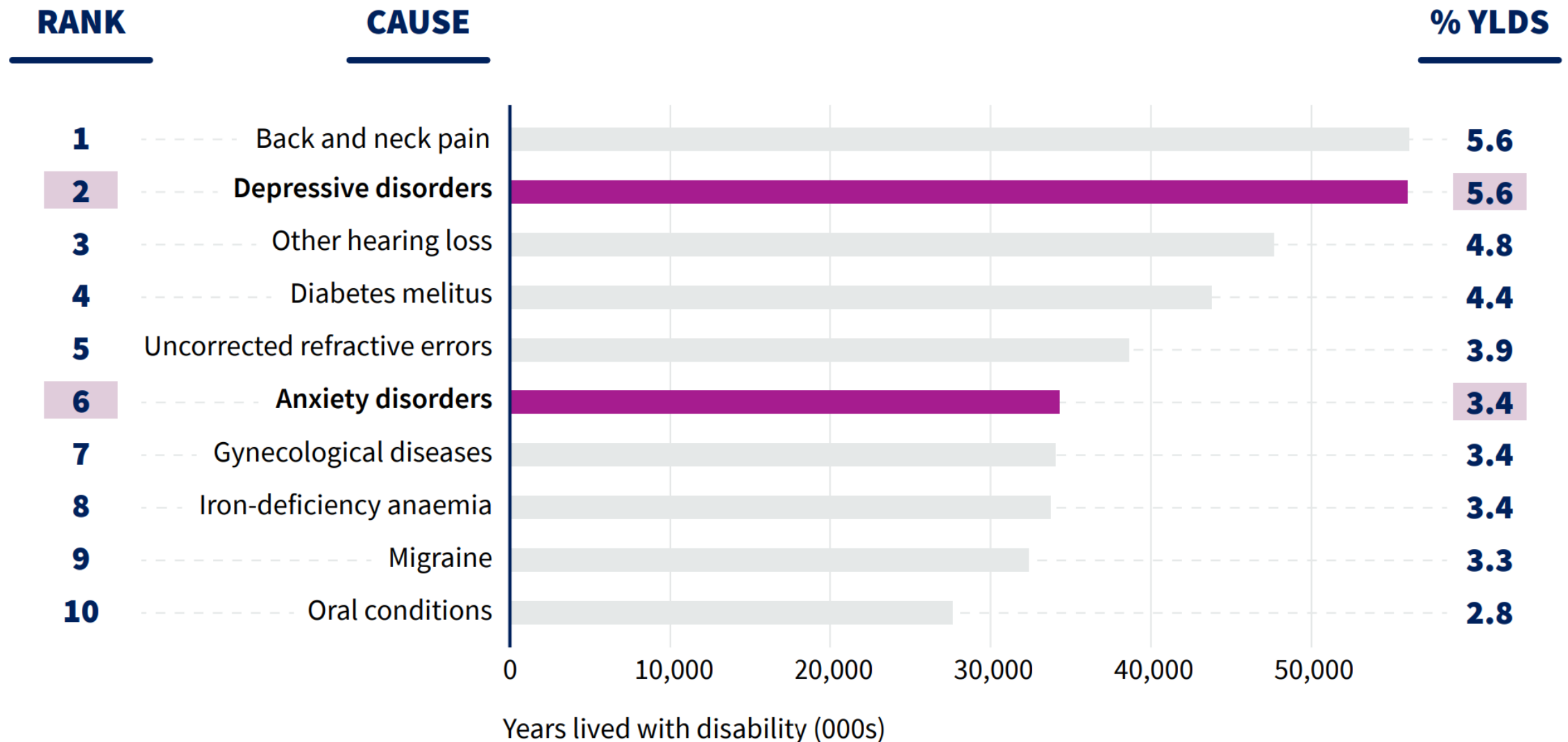
Eating disorders **1.4%**

**13% of global population is
living with mental disorders**



- High-income countries
- Upper middle-income countries
- Lower middle-income countries
- Low-income countries
- - - All countries

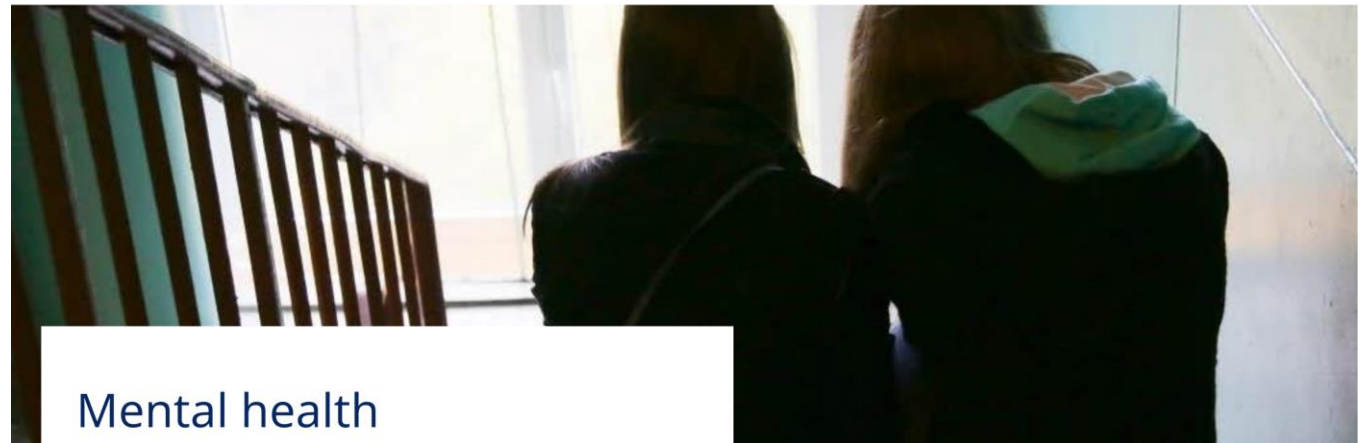
Top ten leading causes of global years lived with disability (YLDs), 2019



Suicide is the fourth leading cause of death among 15-29-year-olds



Home / Health topics / Mental Health



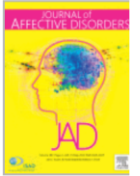
University Students
are affected by
mental disorders

- The prevalence of **depression** (13,790 participants) was **25%** and the pooled prevalence of **suicide-related outcomes** (2,586 participants) was **14%**.



Journal of Affective Disorders

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Review article

Prevalence and risk factors for mental health problems in university undergraduate students: A systematic review with meta-analysis



Why Mindfulness?



What is Mindfulness?



I am here and now



Some scientific evidence

Sverre, 2023	Meta-analysis of RCTs Adults with depression	8 sessions (15h) of Mindfulness based therapy or Cognitive Behaviour therapy	↓ Depression with both types of therapy
Bamber 2022	Systematic review; university students	4 to 15 weeks with Mindfulness practices	↓ Depression ↓ Anxiety ↑ Emotional regulation ↑ Focus ↑ Tranquility
Chuntana, 2022	Meta-analysis of RCTs, young adults 20-26 years	8 weeks; sessions once a week with daily practices	↓ Depression; results related to time of practice

Bamber, M.D. & Schneider, J. K. College students' perceptions of mindfulness-based interventions: A narrative review of the qualitative research *Curr Psychol* (2022) 41:667–680
<https://doi.org/10.1007/s12144-019-00592-4>

Chuntana Reangsing, Christina Lauderman, and Joanne Kraenzle Schneider. Effects of Mindfulness Meditation Intervention on Depressive Symptoms in Emerging Adults: A Systematic Review and Meta-Analysis. *Journal of Integrative and Complementary Medicine*. Jan 2022.6-24. <http://doi.org/10.1089/jicm.2021.0036>

Sverre, K. T., Nissen, E. R., Farver-Vestergaard, I., Johannsen, M., & Zachariae, R. (2023). Comparing the efficacy of mindfulness-based therapy and cognitive-behavioral therapy for depression in head-to-head randomized controlled trials: A systematic review and meta-analysis of equivalence. *Clinical psychology review*, 100, 102234.

<https://doi.org/10.1016/j.cpr.2022.102234>

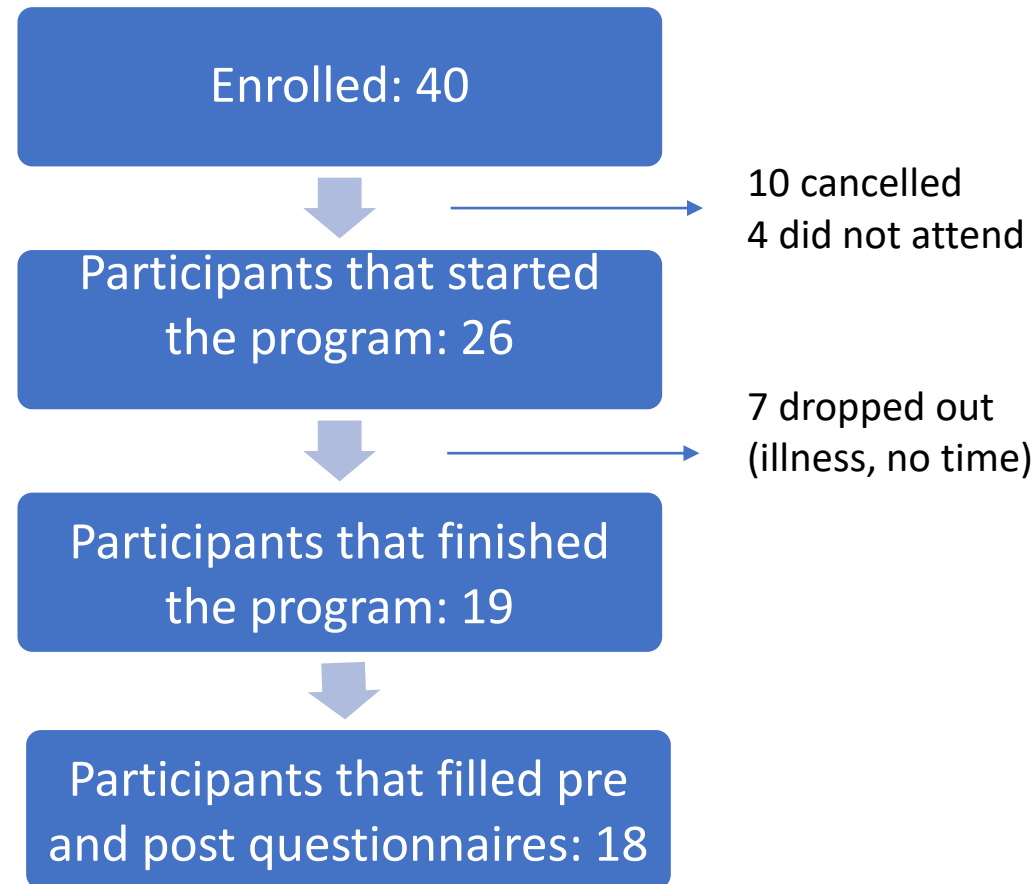


The program

8 sessions, October – December 2022

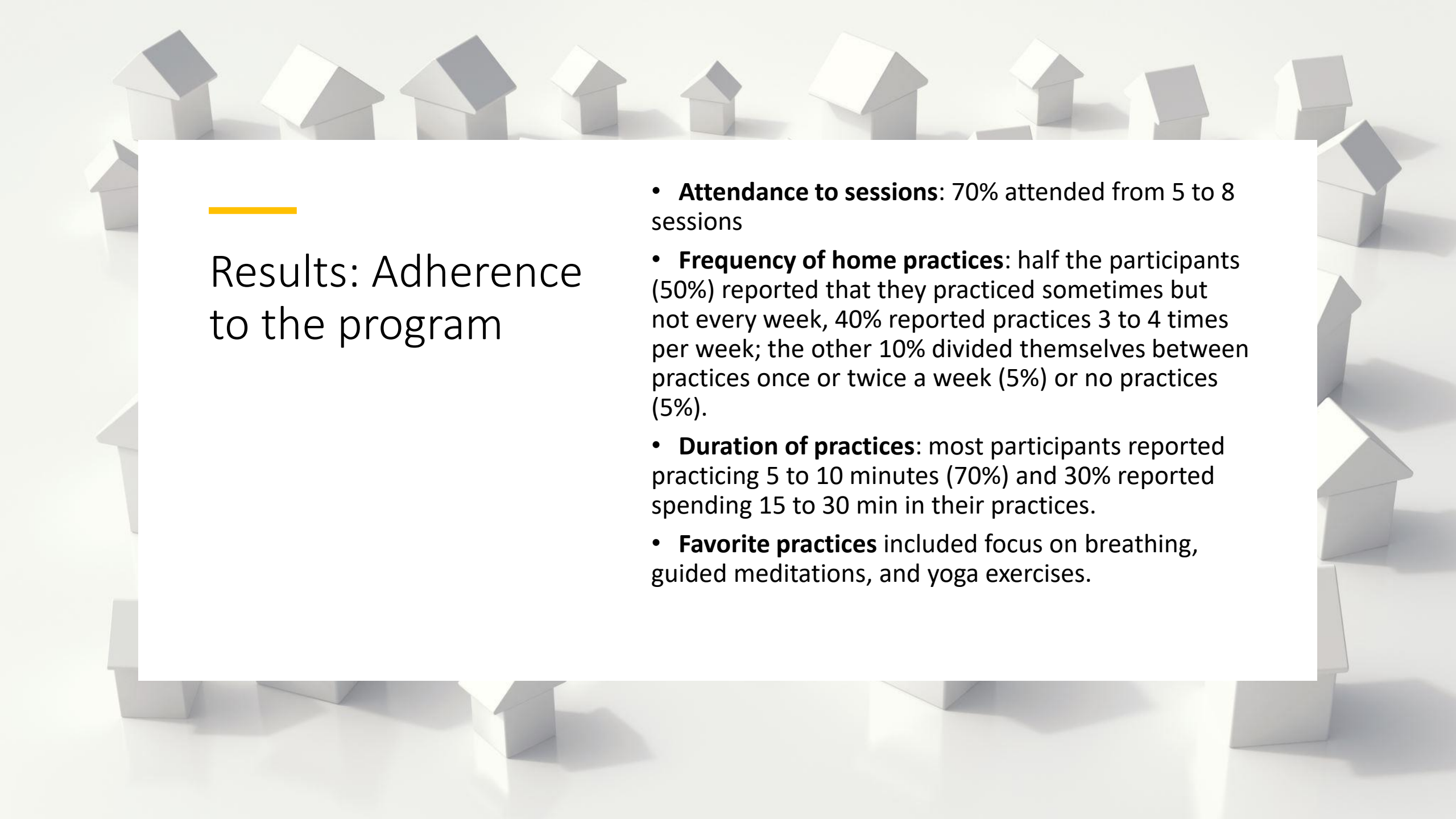
1. Concept of Mindfulness; formal and non-formal practices, diaphragmatic breathing;
2. Mindfulness attitudes; body scan;
3. Dealing with stress and anxiety; scientific evidence of mindfulness effects; guided meditation;
4. Flipping limiting thoughts to empowering thoughts; 10 Yoga movements and relaxing the body; guided meditation;
5. Goal setting; anchoring tranquility and focus; walking meditation
6. Yoga class; sitting meditation; values;
7. Neurologic levels; loving-kindness meditation;
8. Personal impact statement; mindfulness state meditation. Sessions 3 and 6 were online; all other sessions were presential.

Results: Flow of participants



Characteristics of the initial sample

Gender (% Female)	84.6
Age (mean \pm SD)	22.8 \pm 6.1
BMI (% normal weight; BMI < 25 kg/m ²)	61.6
Smoker (%)	19
Diagnosed pathology (%)	26.9
Physical Activity (mean MET-min/week \pm SD)	2197 \pm 1850
Adherence to MD (mean MEDAS \pm SD)	6.3 \pm 1.6



Results: Adherence to the program

- **Attendance to sessions:** 70% attended from 5 to 8 sessions
- **Frequency of home practices:** half the participants (50%) reported that they practiced sometimes but not every week, 40% reported practices 3 to 4 times per week; the other 10% divided themselves between practices once or twice a week (5%) or no practices (5%).
- **Duration of practices:** most participants reported practicing 5 to 10 minutes (70%) and 30% reported spending 15 to 30 min in their practices.
- **Favorite practices** included focus on breathing, guided meditations, and yoga exercises.

Results: Primary Outcomes

Values before (Pre) and after (Pos) the intervention for depression, anxiety, stress and sleep quality.

Domain (scale)	Pre	Pos	P-value	Effect
Items of each domain	(mean ± sd)	(mean ± sd)	a,b	size ^{a,b}
Depression (EADS)	1.1 ± 0.8	0.9 ± 0.9	0.198 ^a	0.307 ^a
Anxiety (EADS)	1.1 ± 0.8	0.6 ± 1.3	0.031 ^a	0.589 ^a
Stress (EADS)	1.6 ± 0.7	1.1 ± 0.8	0.014 ^b	0.646 ^b
Sleep Quality (PSQI)	4.9 ± 3.5	3.0 ± 2.1	0.027 ^b	0.611 ^b

EADS (Scale of Anxiety, Depression and Stress), scale from 0 (best condition) to 3 (worst condition); PSQI (Pittsburg Sleep Quality Index), scale from 0 (best condition) to 15 (worst condition). Differences between pre and post intervention were tested by parametric paired t-tests for normal variables, with Cohen's D effect size (a), and non-parametric related samples Wilcoxon Signed Rank Tests for non-normal variables with acceptable skewness (-1 to 1 values) and effect sizes calculated by Z values divided by the square root of N (b); N=18. Significant differences in bold (p-values < 0.05). Effect sizes: no effect < 0.2; small effect 0.2 to 0.5; moderate effect 0.5 to 0.8; large effect > 0.8.

Results: Secondary Outcomes

Values before (Pre) and after (Pos) the intervention for Mediterranean Diet Adherence (MEDAS score), Physical Activity, frequency of contact with nature and with friends).

MEDAS, Mediterranean Diet Adherence Screener, score from 0 (worse) to 14 (best) [11]. MET-min per week calculated according to IPAQ (International Physical Activity Questionnaire) [8]. a) Differences between pre and post intervention were tested non-parametric related samples Wilcoxon Signed Rank Tests for non-normal variables with acceptable skewness (-1 to 1 values) and effect sizes calculated by Z values divided by the square root of N. Significant differences in bold (p-values < 0.05). Effect sizes: no effect < 0.2; small effect 0.2 to 0.5; moderate effect 0.5 to 0.8; large effect > 0.8.

Variable	Pre	Pos	P-value ^a	Effect size ^a
Mediterranean Diet Adherence (MEDAS; mean ± sd)				
	6.3 ± 1.6	6.4 ± 1.9	0.935	0.02
Physical Activity (MET-min/week; mean ± sd)				
	1.1 ± 0.8	0.6 ± 1.3	0.609	0.123
Frequency of contact with nature (%)				
Never	0.0	15.0		
Occasionally	37.5	20.0	0.218	0.275
Sometimes	41.7	20.0		
Frequently	20.8	40.0		
Most of the times	0.0	5.0		
Frequency of contact with friends (%)				
Never	0.0	0.0		
Occasionally	29.2	5.0	0.008	0.590
Sometimes	45.8	45.0		
Frequently	12.5	30.0		
Most of the times	12.5	20.0		

Results: correlation

A significant correlation was observed for sleep quality and frequency of practices (Pearson p -value=0.039), with a moderate positive association (Pearson r =0.538).



Main Message

- Mind7+ program positively influenced stress levels, anxiety, sleep quality and social interactions among university students.

Future Perspectives

- Will an adaptation to a mobile App be efficient?



Some recent evidence



[J Med Internet Res.](#) 2023; 25: e39128.

PMCID: PMC9856434

Published online 2023 Jan 3. doi: [10.2196/39128](https://doi.org/10.2196/39128)

PMID: [36596239](https://pubmed.ncbi.nlm.nih.gov/36596239/)

Effects of Mobile Mindfulness Meditation on the Mental Health of University Students: Systematic Review and Meta-analysis

958 university students; mobile mindfulness meditation vs control

↓ Stress ↓ Anxiety

↔ Depression

↑ Well-being



Thank you and be mindfulness

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