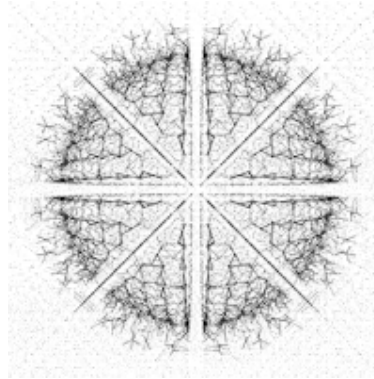


# National experience with medical use of psychedelics



**Prof. MUDr. J. Horáček, Ph.D., FCMA**

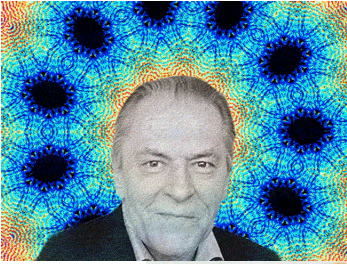
National Institute of Mental Health,  
3rd Medical Faculty of Charles University

**PSYON s.r.o.**

PSYRES - Czech Psychedelic Research Foundation



# Czech tradition of psychedelic research

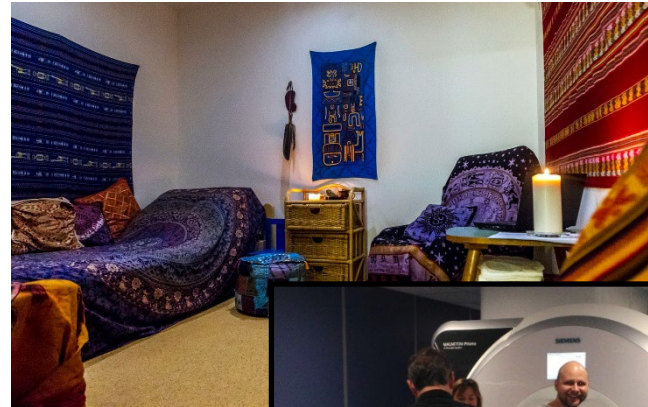
A stylized illustration of two hands, one in red and one in pink, holding several mushrooms. The background is a dark teal color.

PSYCHEDELICKÉ ČESKO, #68, PUBLICISTIKA, JINÉ DROGY, PSYCHEDELIKA

## Psychedelické Česko 03: České podhoubí

2. 12. 2021

→ Zatímco zahradníci s úderem prvních mrazků sklízí poslední zeleň, neboť již mají po sezóně, psychedeličtí houbaři teprve začínají vyrážet do terénu.



Electroencephalographic Spectral and  
Analysis of Ketamine in Rats: Correlation  
with Behavioral Effects and Pharmacokinetics

The NEW ENGLAND  
JOURNAL of MEDICINE

ESTABLISHED IN 1812

NOVEMBER 3, 2022

VOL. 387 NO. 18

Single-Dose Psilocybin for a Treatment-Resistant Episode  
of Major Depression

Carrollson, O. Alvarez, P.C. Arden, A. Baker, J.C. Bennett, C. Bird, R.E. Blom, C. Brennan, D. Bruschi,  
All-Coker, R. Carhart-Harris, J. Cattell, A. Daniel, C. DeBattista, B.W. Dunlop, K. Eisen, D. Feifel,  
Lummann, D.J. Hellerstein, A.I. Hoppe, M.I. Husain, L.A. Jelen, J. Kamphuis, J. Kawasaki, J.R. Kelly,  
L. Knatz Peck, G. Knight, M.H.B. Koolen, M. Lean, R.W. Licht, J.L. Maples-Keller, J. Mars,  
Elhiney, T.L. Miller, A. Mirow, S. Mistry, T. Mletzko-Crowe, L.N. Modlin, R.E. Nielsen, E.M. Nielson,  
Leane, T. Páleníček, D. Printz, M.C. Rademaker, A. van Reemst, F. Reinholdt, D. Repantis, J. Rucker,  
J. Rush, R.A. Schoevers, M. Seynaeve, S. Shao, J.C. Soares, M. Somers, S.C. Stansfield, D. Sterling,  
Lai, L. Visser, M. Wahba, S. Williams, A.H. Young, P. Ywema, S. Zisook, and E. Malievskaia



Does Psychedelic Therapy Have a  
Transdiagnostic Action and  
Prophylactic Potential?

Rita Kočárová<sup>1,2,\*</sup>, Jiří Horáček<sup>4,5</sup> and Robin Carhart-Harris<sup>6</sup>

<sup>1</sup> Department of Translational Neuroscience, National Institute of Mental Health, Klecany, Czechia, <sup>2</sup> Dept.  
Psychology, Faculty of Arts, Charles University, Prague, Czechia, <sup>3</sup> Beyond Psychedelics, Prague, Czechia,  
Applied Neuroscience and Neuroimaging, National Institute of Mental Health, Klecany, Czechia, <sup>4</sup> Third  
Charles University, Prague, Czechia, <sup>5</sup> Centre for Psychedelic Research, Imperial College London, London

ABSTRACT

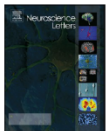
Neuroscience Letters 798 (2023) 137095



Contents lists available at ScienceDirect

Neuroscience Letters

journal homepage: [www.elsevier.com/locate/neulet](http://www.elsevier.com/locate/neulet)



Several reasons why ketamine as a neuroplastic agent may have failed to  
prevent postoperative delirium: Implications for future protocols

Jiri Horacek<sup>a,b,\*</sup>, Robert Janda<sup>c</sup>, Natalie Görmerova<sup>a,b</sup>, Lucia Jajcay<sup>a,d</sup>, Veronika Andrashko<sup>a,b</sup>

<sup>a</sup> National Institute of Mental Health, Klecany, Czech Republic  
<sup>b</sup> Third Faculty of Medicine, Charles University, Prague, Czech Republic  
<sup>c</sup> Intensive Care Unit, Karlovy Vary Regional Hospital, K. Vary, Czech Republic  
<sup>d</sup> Faculty of Electrical Engineering, Czech Technical University in Prague, Prague, Czech Republic

Peter Sos<sup>1</sup> and Jiri Horacek<sup>1,2</sup>



Torsten Meyer<sup>a</sup>, M  
Erich Seifritz<sup>a</sup>, Seb

<sup>a</sup> Department for Psychiatry, Psy  
<sup>b</sup> National Institute of Mental H  
<sup>c</sup> Charles University, Third Facu

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Michael  
Anna Kubešová<sup>a,b</sup>, Daniela Řípová<sup>a</sup>, Vladimír

<sup>a</sup> Prague Psychiatric Center, Ústavní 91, 18103, Prague 8, Czech Republic  
<sup>b</sup> 3rd Faculty of Medicine, Charles University in Prague, Ruska 87, 100 00 Prague  
<sup>c</sup> Czech Technical University in Prague, Faculty of Biomedical Engineering, Nařínova 2105, 272 01 Kluzná, Czech Republic

MEP Alliance for Mental Health invites you to an expert meeting

## INNOVATIVE APPROACHES IN MENTAL HEALTH IN POST-COVID ERA



Hosted by co-chairs of the MEP Alliance for Mental Health:

- MEP Estrella Durá Ferrandis (S&D)
- MEP Radka Maxová (S&D)
- MEP Maria Walsh (EPP)
- MEP Alex Agius Saliba (S&D)
- MEP Tomáš Zdechovecký (EPP)

Speakers:

- Prof. MUDr. Jiří Horáček, Ph.D. Czech National Institute of Mental Health
- Kim Kuypers, Ph.D. Maastricht University
- Eric Vermetten MD, Ph.D. Dutch Ministry of Defence & Leiden University

30<sup>th</sup> November 2021  
14:00 – 16:00  
via Webex

## MEMORANDUM ON FUTURE EU ACTION ON MENTAL HEALTH

Statement put forward by the Czech Republic EU Presidency conference  
*Resilient Mental Health in the EU taking place in Brussels on 1<sup>st</sup> November 2022*

**B**earing in mind the ongoing mental health crisis in Europe, this conference welcomes the renewed interest of the EU institutions in this area. The document provides a concrete outline for what should be reflected by the European Commission in the "comprehensive action on mental health" outlined by the European Commission's President during the last State of the Union speech.

further emphasizes the precious and vulnerable nature of mental health.

- The EU is also confronted with an unprecedented faith in misinformation, irrational beliefs that foster extremism, undermine democracy, and negatively impact mental health.

These challenges are in stark contrast to the fact that the de-

### STATE OF PLAY

Amongst the others, the should be an EU-level p

- Mental ill-health is vic around 11% of the popo mental ill-health, causin families, and communit

- Mental ill-health puts economic, labour, and s

- At least 30% of people do not have access to ca

## THE POTENTIAL OF PAT IN MITIGATING WAR-INDUCED TRAUMA: THE CASE OF UKRAINE

28 November 2023, 12:00-14:00 | European Parliament

The high-level roundtable is hosted by  
MEP Tomáš Zdechovecký (EPP) and MEP Radka Maxová (S&D)

**Honorable Guest:**  
MP Dmytro Gurin, Member of the Verkhovna Rada, Ukrainian Parliament



Psychedics  
MEP Action Group for the Medical Use of Psychedelics  
PSYRES  
epp  
S&D

HIGH-LEVEL INTERNATIONAL CONFERENCE  
UNDER AUSPICES OF THE CZECH PRESIDENCY OF THE COUNCIL OF THE EU

## RESILIENT MENTAL HEALTH IN THE EUROPEAN UNION



14 NOVEMBER 2022 | 11:00 – 16:00  
PERMANENT REPRESENTATION OF THE CZECH REPUBLIC TO THE EU  
RUE CAROLY 15, BRUSSELS, BELGIUM

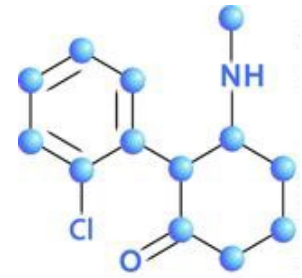
EU2022.CZ  
MINISTRY OF HEALTH OF THE CZECH REPUBLIC  
OFFICE OF THE PRESIDENT OF THE CZECH REPUBLIC



# Current research

- **Psilocybin vs ketamine (and midazolam) in treatment resistant depression**  
(FDA/SUKL: approved and running)
  
  - **Psilocybin vs ketamine (and midazolam) in Depression of Cancer Patients**  
(FDA/SUKL: approved and running)
  
  - **RAFAEL: Regression of atherosclerosis induced by life changing experience with hallucinogens** (FDA/SUKL: approved)
- 
- **Ketamine-assisted psychotherapy in military personnel and civilians who developed PTSD in connection with the war in Ukraine**
  
  - **PsyPal: Psilocybin Therapy for Psychological Distress in Palliative Care Patients**  
(EU HORIZON-RIA 101137378)

# PSYON: Psychedelic clinic ltd

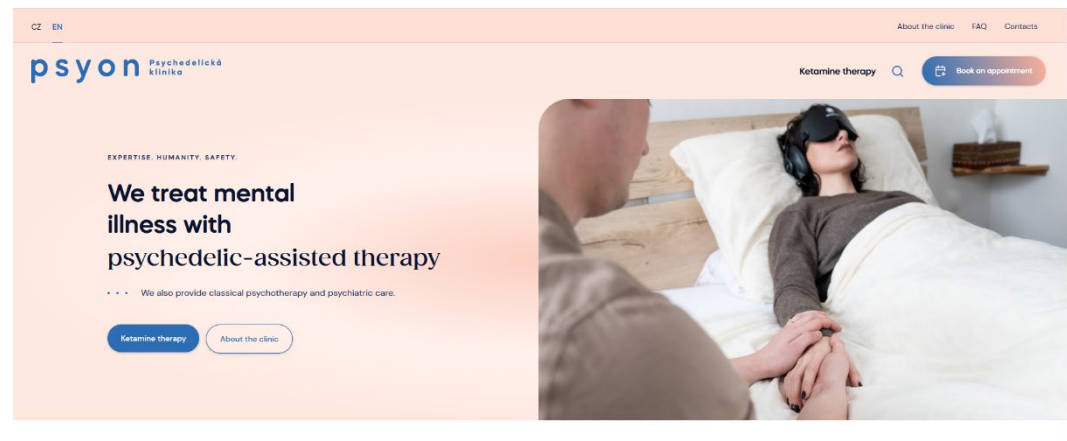


Founding: **2019**

Ketamine-assisted psychotherapy (model): **2020**

Contractual relations with insurance companies: **2021**

**>750 KAPs** (sessions) in **> 450 patients**



**psyon** Psychedelická klinika

# PSYON: KAP model

Informed consent (off-label)

1-2 therapists (one M.D.), basic training + additional t.

Operationalized psychotherapy, medical examination before

**Dg:** evidence in RCTs

**Music:** standard playlists

**Ketamine administration:**

p.o.: 200-300 mg

i.m.: 40-100 mg/kg

i.v.: 0.5 mg/kg/40 min.

## Clinical effect evaluation

PHQ-9

GAD-7

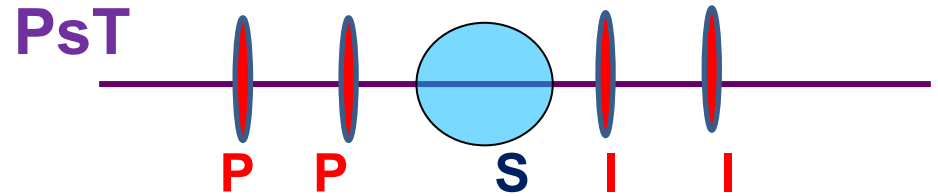
PHQ-15

Pre-, post-KAP

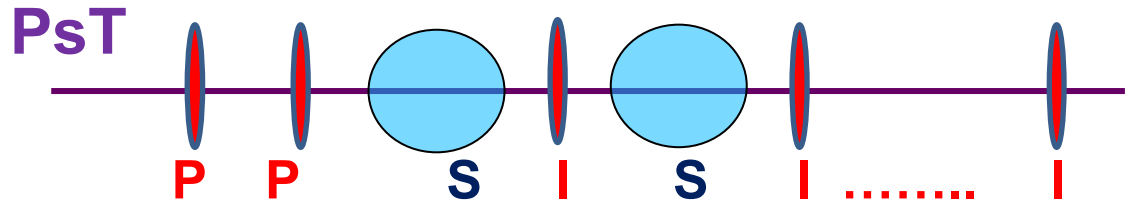
Follow-up: 30, 90, 180 days

# PSYON: KAP models

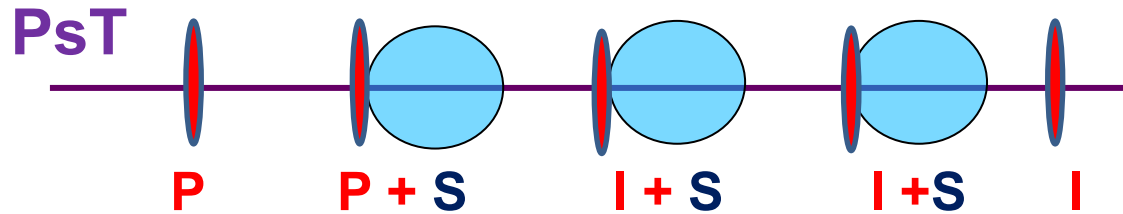
**KAP1**



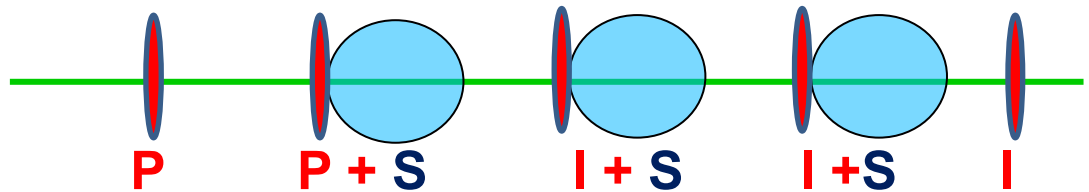
**KAP1 + rep. ket.**



**KAP3**



**AD ket.**



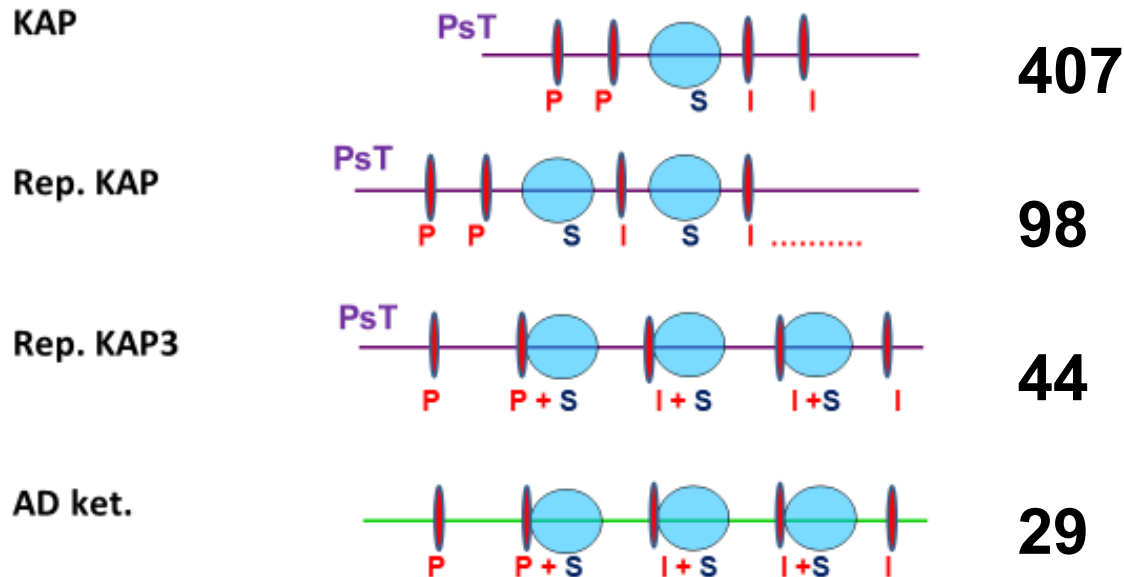


# PSYON: experiences

N=489 (age 38.4, s.d.=9.2), M/F: 206/267

Ketamine sessions: 578

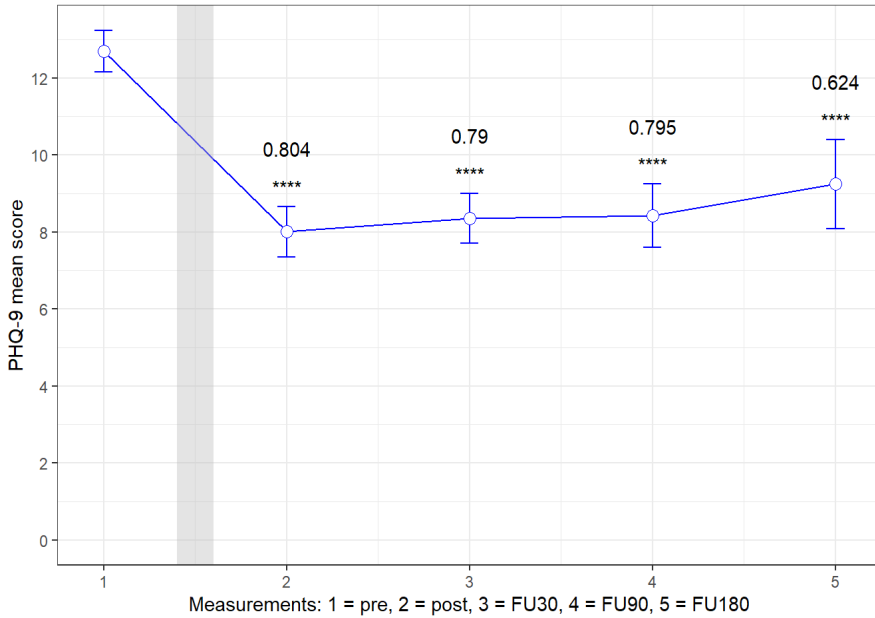
## PSYON: KAP models



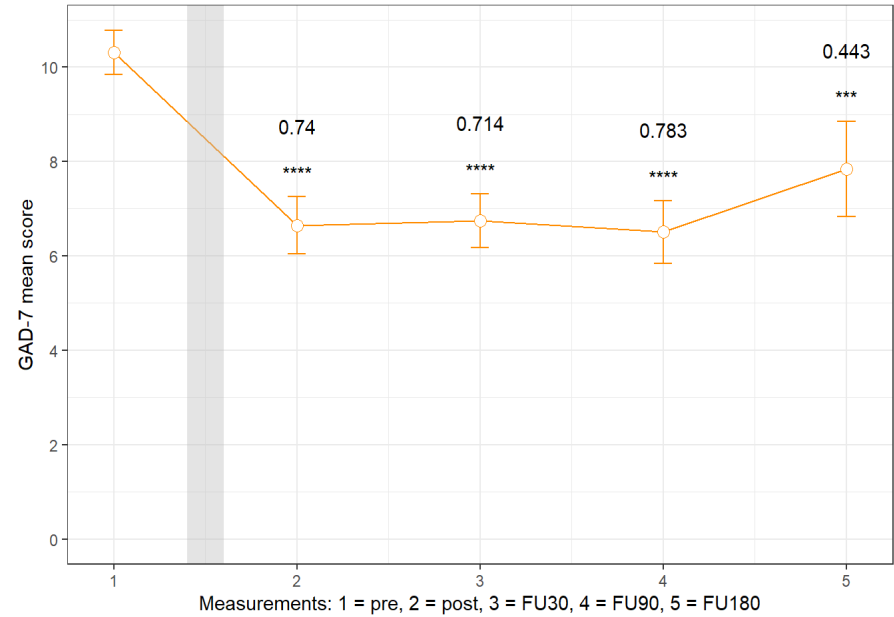
Diagnoses: **F3x : F4x = 1 : 2**

# PSYON: all cases and models

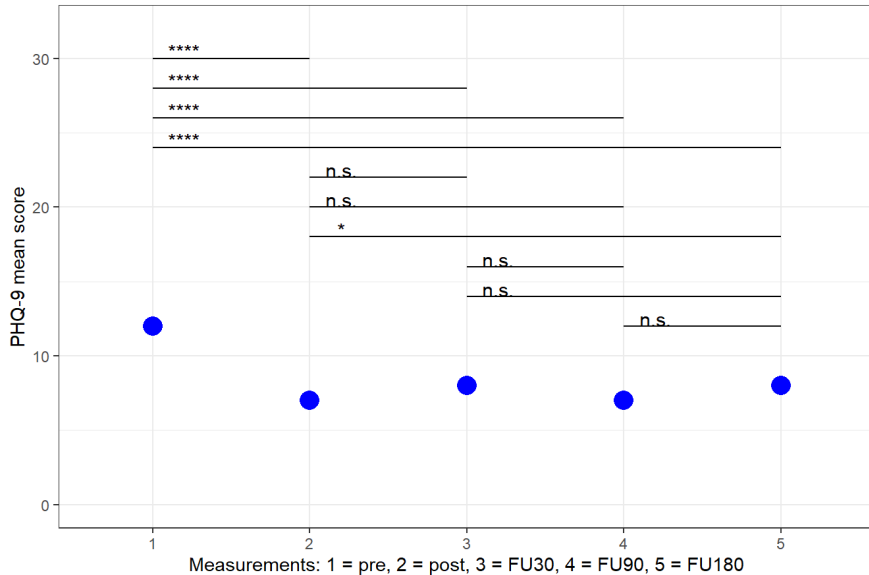
Depression: changes in time from baseline to last follow-up



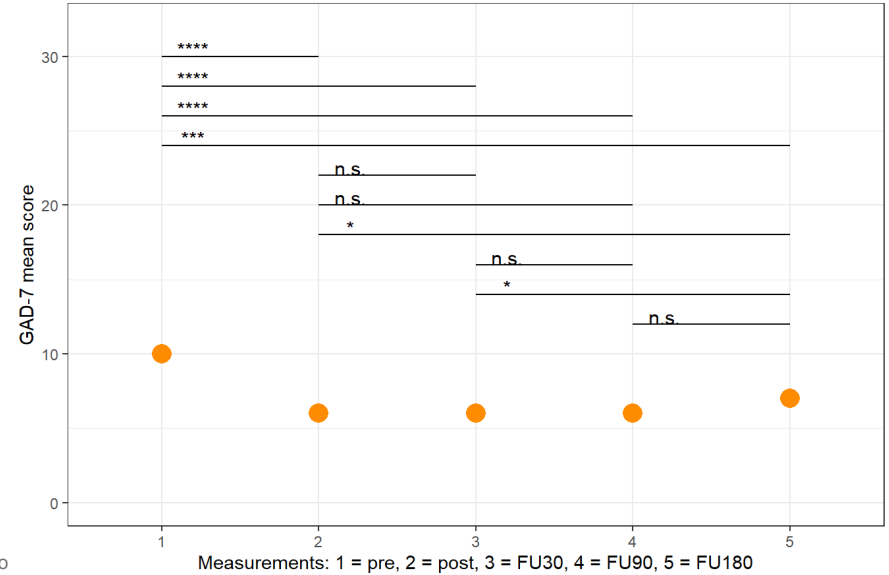
Anxiety: changes in time from baseline to last follow-up



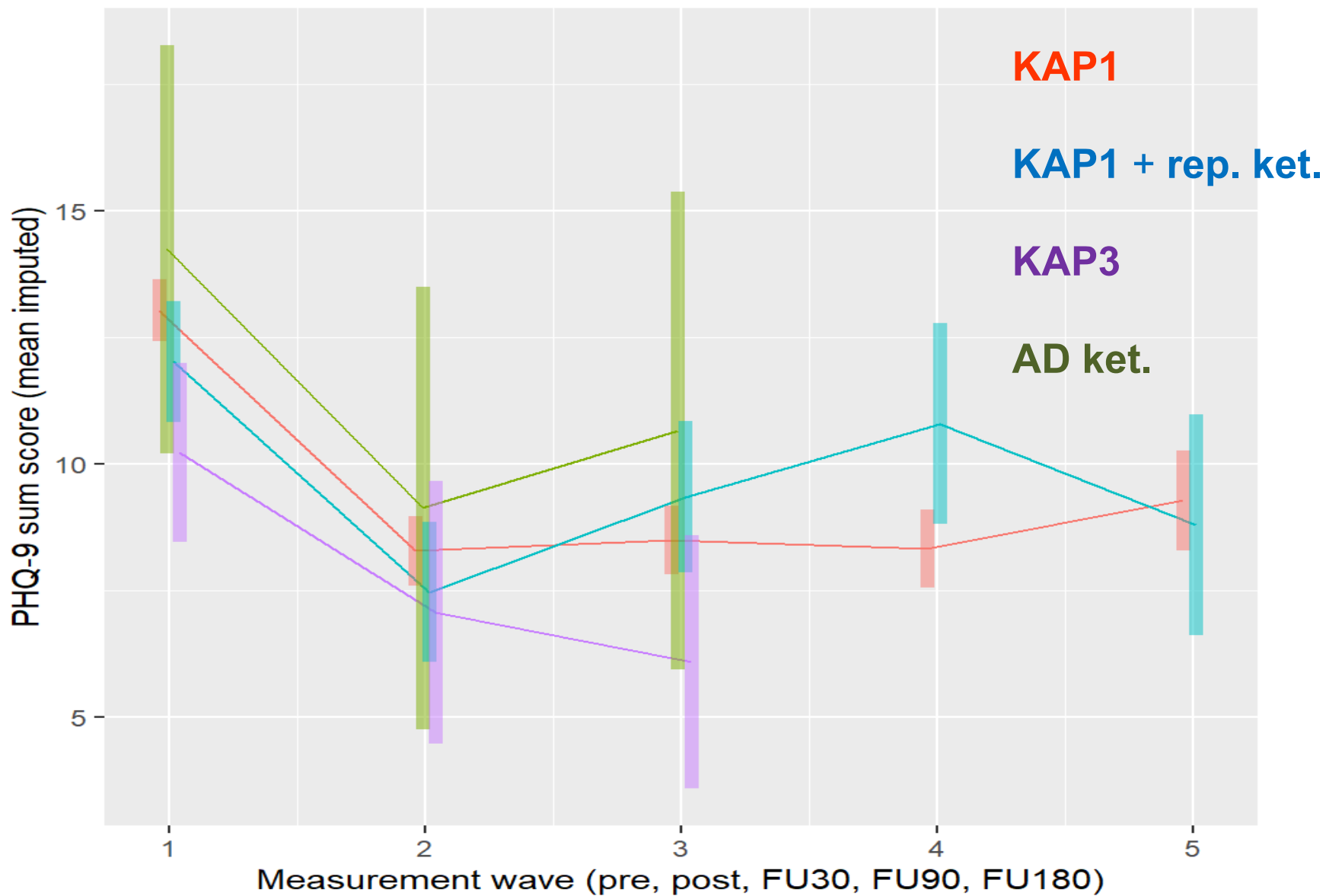
Depression: changes in time from baseline to last follow-up



Anxiety: changes in time from baseline to last follow-up

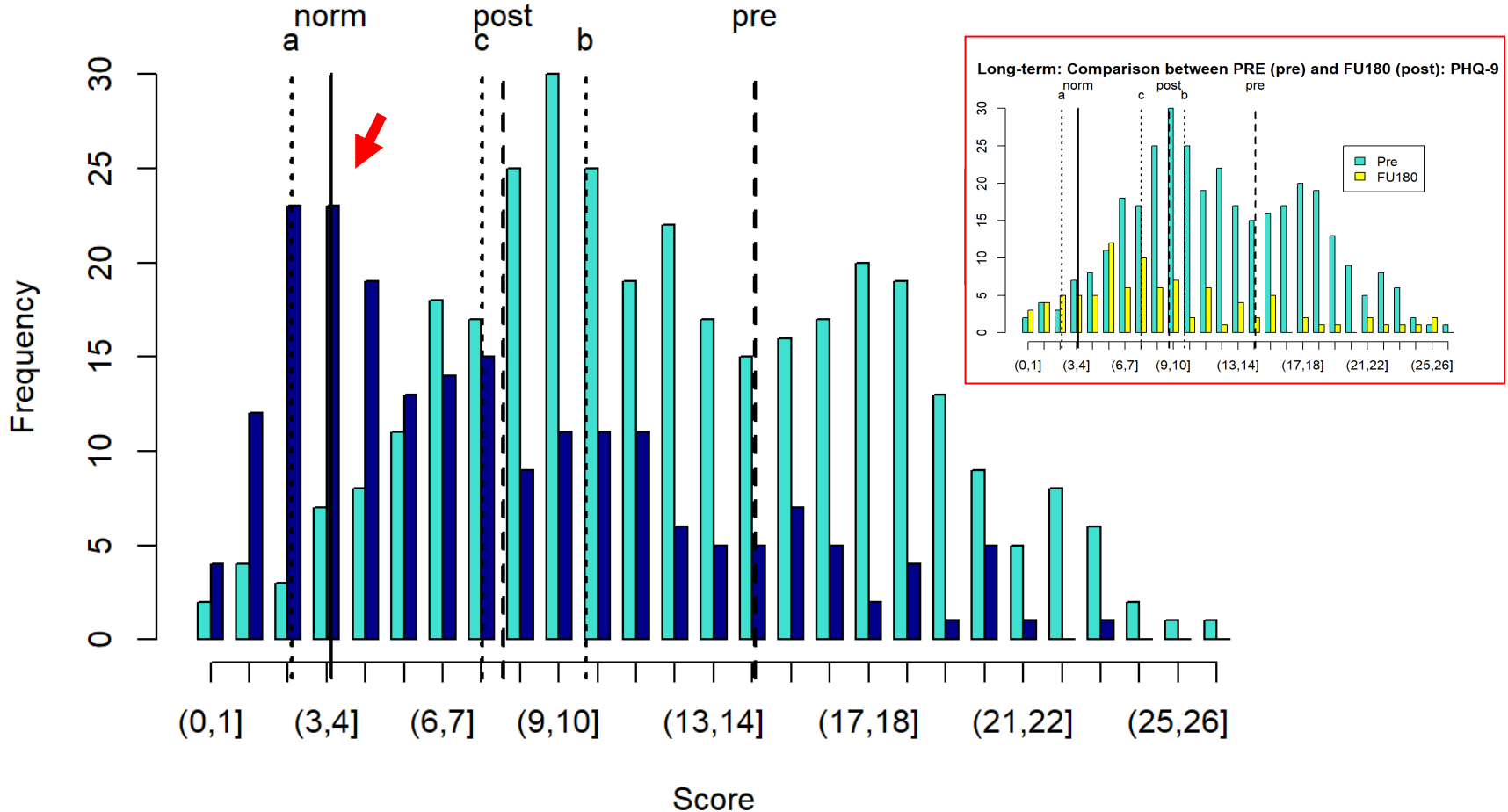


# PSYON: between-models comparison



# PSYON: between-models comparison

## Immediate: Comparison between PRE (pre) and POST (post): PHQ-9



**PHQ-9:** clinical population = 14.58, SD = 5.99

norm. population = 3.62, SD = 3.29) (Belk et al., 2016)

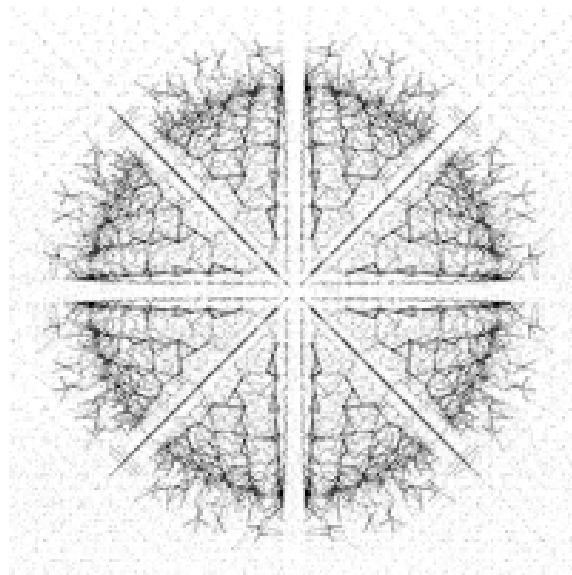
# Conclusions

## generalisation of experience

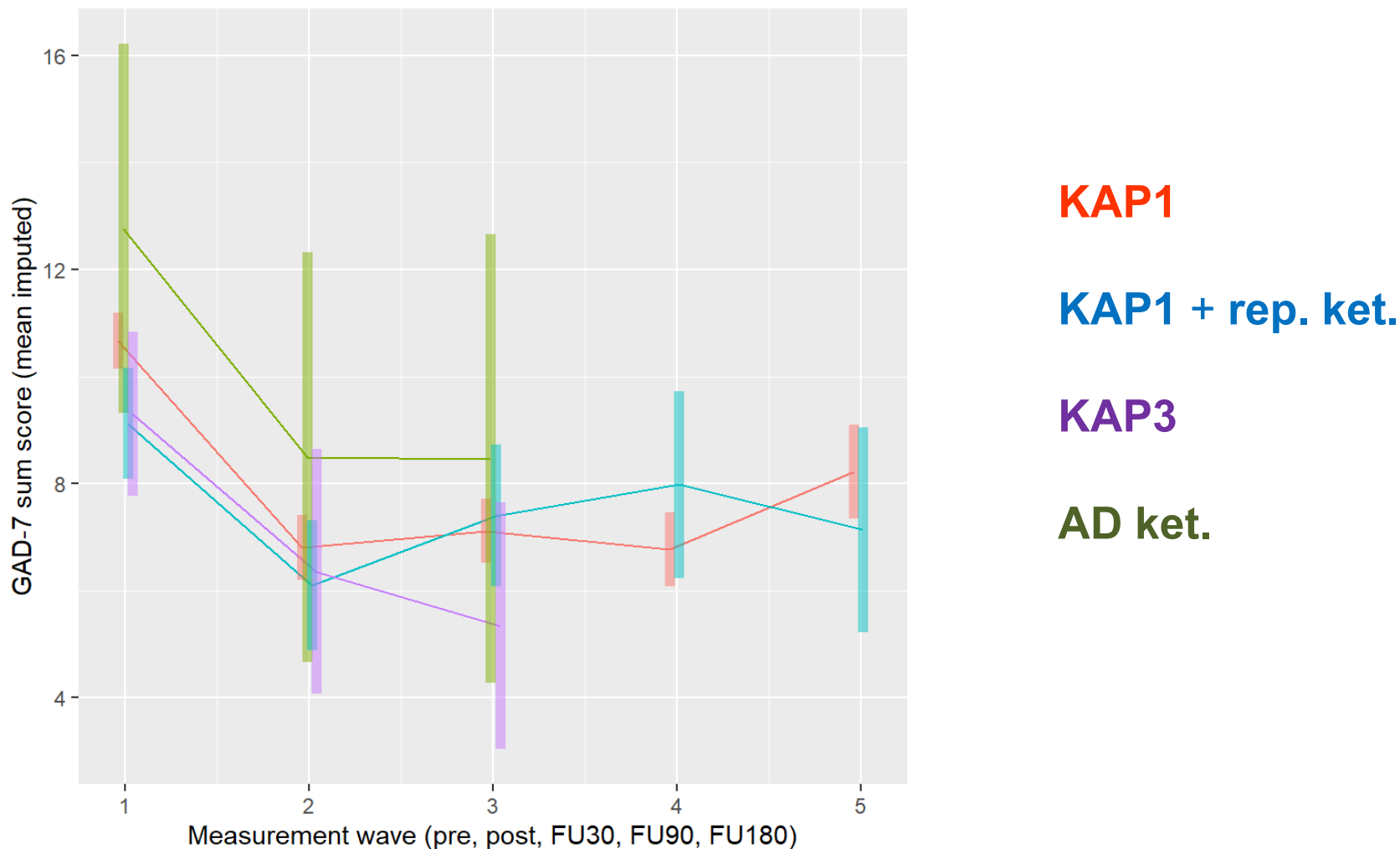
- KAP: acute and long-term effect (one admin. + PsT)
- Operationalized PsT
- Protocol individualized (pharmacokinetics, route of administration etc.)
- Few side effects (1 hospital admission)
- Complement to standard psychotherapy (currently)
- Requirements for psychotherapists
- Shortening the treatment period (insurance companies)
- Psychometrics (to document effect)

# Thank you!

[jiri.horacek@nudz.cz](mailto:jiri.horacek@nudz.cz)



# Between-models of treatment comparison

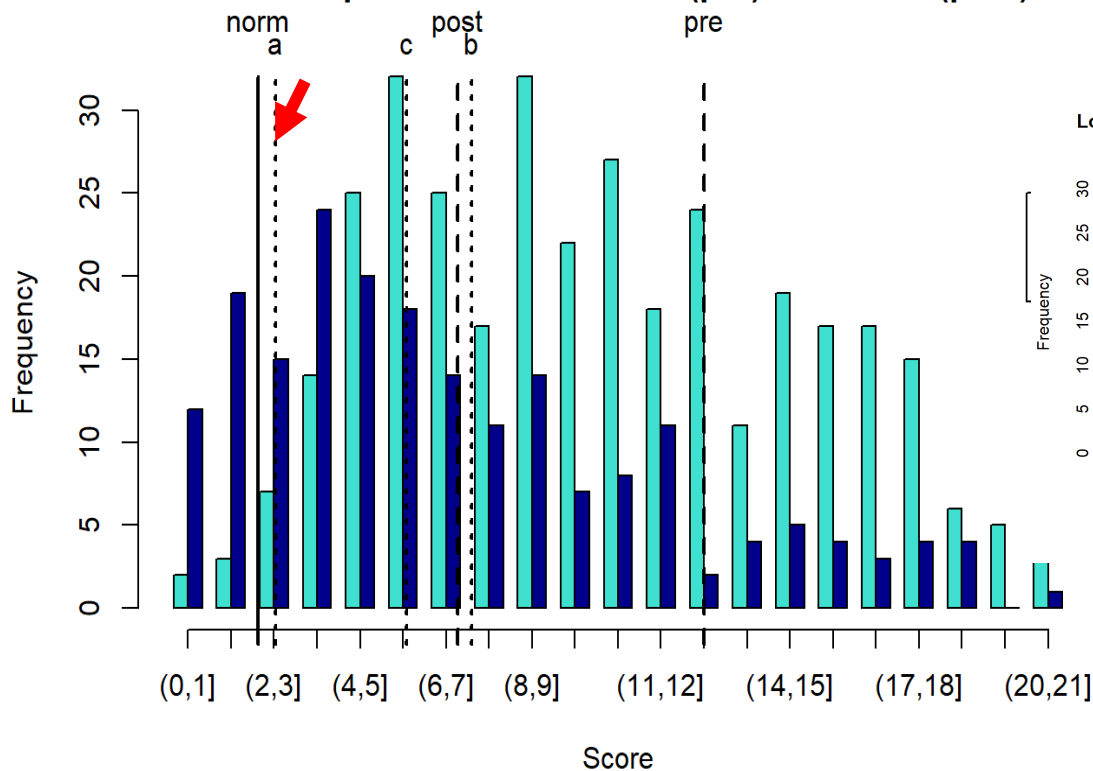


**GAD-7:** clinical population = 12.5, SD = 4.98

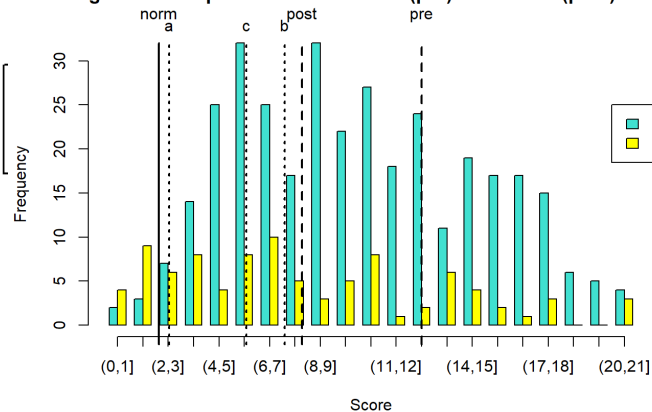
Norm. = 2.13, SD = 2.48) (Belk et al., 2016)

# Between-models of treatment comparison

Immediate: Comparison between PRE (pre) and POST (post): GAD-7



Long-term: Comparison between PRE (pre) and FU180 (post): GAD-7



GAD-7: clinical population = 12.5, SD = 4.98

Norm. population = 2.13, SD = 2.48 (Belk et al., 2016)