

xiscat

Xarxa d'Innovació en Salut
per Catalunya

Cafè de la Innovació

24 març 2021, 9.00-10.30h

 **psious**

WHO WE ARE



We develop and provide Virtual Reality solutions for mental health professionals to facilitate the delivery of their therapeutic interventions.

We offer environments to aid treatment for specific phobias, resources to manage anxiety disorders and pain, and a set of relaxation environments.

#OurReasonToBe

We believe that people should not feel limited by their minds.





Born in 2014, Psious is a pioneer and a global leader in virtual reality solutions for mental health:



醫院管理局
HOSPITAL
AUTHORITY



Cincinnati
Children's



Blue Cross
BlueShield



vita
health group



TheOaktree
CLINIC



WAYNE STATE
UNIVERSITY



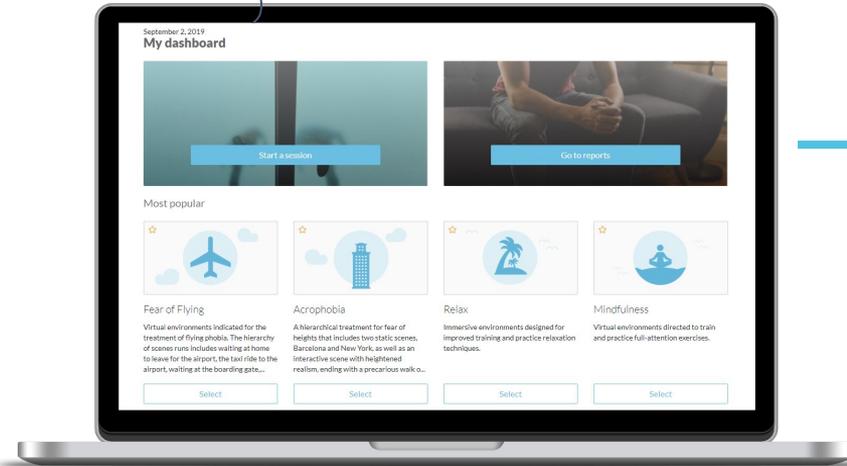
LA MAESTRA
COMMUNITY HEALTH CENTERS
City Heights • El Centro • National City • Lenox Grove



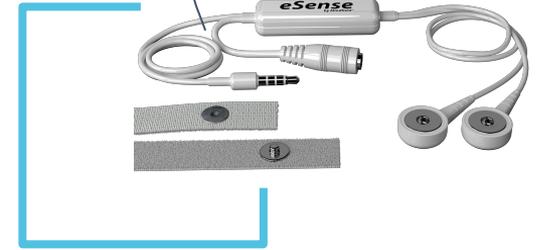
OUR SOLUTION

Psious provides everything you need to apply virtual reality in your practice: access to the **Psious platform**, state-of-the-art **glasses** and a **Galvanic Skin Response (GSR) sensor** that measures the patient's physiological response.

Psious Platform



Galvanic Skin Response Sensor



Virtual reality glasses



Anywhere, Anytime, Any Device

Allow patients and staff to use the platform on-site or at-home, using VR headset, Cardboard, or just their phone.

VR Headset



Cardboard & mobile



2D Mobile app



Therapist Guided or Supervised Self-Practice

Allow patients and staff to use the platform on-site or at-home, using VR headset, Cardboard, or just their phone.

Therapist Guided On-Site or At-Home



Self Practice



Use Cases at Hospital Settings



Staff Burnout

Decrease staff
burnout during
COVID onsite
and at-home



Anxiety

Reduce patients
anxiety before
surgical
procedures,
labor, and other
stressful
procedures



Pain

Help patients
who suffer from
pain reduce
pain with less
medications



Depression

Help patients
who suffer from
depression
onsite and
at-home

RELAX ENVIRONMENTS

VR Basic Plan



Relax



Mindfulness



Distraction



Fear of public speaking



Stress

ANXIETY & PHOBIA ENVIRONMENTS

VR Professional Plan
Includes the five VR Basic environments



Fear of animals



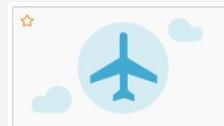
Fear of driving



Fear of needles



Fear of darkness



Fear of flying



Acrophobia



Agoraphobia



Claustrophobia



Bullying



Tests anxiety



Generalized anxiety



Social anxiety



Agoraphobia and Panic

OTHER DISORDERS

VR Platinum Plan
Includes all previous environments (VR Basic + VR Professional)



Eating disorders



EMDR



OCD

Evidence-based technology

All environments are based on scientific standard of treatment in the industry.

NICE defines best practices on mental health, which includes techniques such as CBT and applied relaxation among others.

There is a body of empirical evidence that supports VR as a a mean to deliver these techniques.

Psious is designed based on this empirical evidence.



The screenshot shows a section of a NICE interactive flowchart. At the top, there is a header: "Generalised anxiety disorder – everything NICE says in an interactive flowchart". Below this, the main heading is "High-intensity psychological interventions". The text reads: "If a person with GAD chooses a high-intensity psychological intervention, offer either CBT or applied relaxation." Below this, it states: "Practitioners providing high-intensity psychological interventions for GAD should". This is followed by a bulleted list of requirements for practitioners.

Generalised anxiety disorder – everything NICE says in an interactive flowchart

High-intensity psychological interventions

If a person with **GAD** chooses a high-intensity psychological intervention, offer either **CBT** or applied relaxation.

Practitioners providing high-intensity psychological interventions for GAD should

- have regular supervision to monitor fidelity to the treatment model, using audio or video recording of treatment sessions if possible and if the person consents
- use routine outcome measures and ensure that the person with GAD is involved

Studies Methodology

Fase 1

Confidentiality agreement

**Research Intervention
protocol draft
(Research center &
Psious)**

Fase 2

**Experimental
Design**

Ethics committee

Fase 3

Psious Training

- Technical
- Clinical

Study

Psious technical and
clinical advice

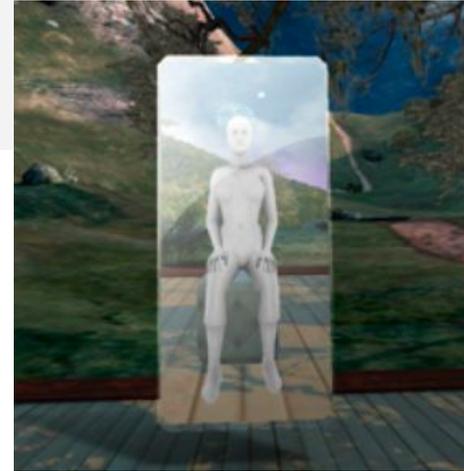
Ongoing Psious Studies (Selection)

Institution	Disorder/Problem	Experimental group	Control group	N	Study aims	Treatment	Results
 Universidad Zaragoza	Academic performance and wellness	Mindfulness training through VR	No treatment	278	Benefits of Mindfulness VR training for university students (for academic performance and wellness).	Delivered at the university by the psychologist (researcher).	VR group: more effective, longer lasting, better adherence
 Sanitas	Psycho-Oncology	Mindfulness during chemotherapy	Conventional psychoeducation sessio	133	Benefits of VR Mindfulness during chemotherapy	Delivered at the clinic by the psychologist.	significantly reduced anxiety from 3rd session, improvement of coping style, reduction of anxiety, 100% adherence to chemotherapy session
 Universitat de les Illes Balears	Hemodialysis	Emotive performances technique through VR	No treatment	30	Reduce anxiety level for kids with fear of darkness	Emotive performances technique sessions delivered by a mental health professional	VR group 75% improved pain
 HOFSTRA UNIVERSITY.	Fear of Flying	CBT & VRET	No control group	150	Reduce anxiety level for a patient with fear of flying	Self applied fear of flying VRET treatment (pre-recorded sessions).	Significant reduction of "fear of flying questionnaire" scores. Avoidance behaviors reduction.
 UCLA	Psious Vs pharmacological treatment	<i>For confidentiality reasons, further information about this study cannot be disclosed</i>					
 Vall d'Hebron Hospital  Karolinska Institutet	ADHD in adults	Attentional tasks and relaxation through VR	Treatment as usual (medication)	72	ADHD central symptoms reduction	Pre-recorded VR sessions. Delivered at the clinic by the psychologist	VR group: Significant improvement of ADHD symptoms, impulsivity, depression, anxiety, functionality and quality of life. The results are maintained after 1 and 3 months.
 SJD Sant Joan de Déu Barcelona - Hospital	ADHD in kids	Attentional tasks and relaxation through VR	Treatment as usual (medication)	40	ADHD central symptoms reduction without medication	Delivered at the clinic by the psychologist (group treatment)	Sginificant effect in attetion, hyperactivity and exeective functions (working memoryt, attention, planning, processing speed)

depression(25)

25 environemtent including

- gratitude
- contemplation
- activation
- body scan
- activation with dolphins, forest, beach
- leaving home



Freeman, D., Reeve, S., Robinson, A., Ehlers, A., Clark, D., Spanlang, B., & Slater, M. (2017). Virtual reality in the assessment, understanding, and treatment of mental health disorders. *Psychological medicine*, 47(14), 2393–2400.

<https://doi.org/10.1017/S003329171700040X>

Lindner, P., Hamilton, W., Miloff, A., & Carlbring, P. (2019). How to treat depression with low-intensity virtual reality interventions: Perspectives on translating cognitive behavioral techniques into the virtual reality modality and how to make anti-depressive use of virtual reality—unique experiences. *Frontiers in Psychiatry*, 10(OCT). <https://doi.org/10.3389/fpsy.2019.00792>

Zeng, N., Pope, Z., Lee, J., & Gao, Z. (2018). Virtual Reality Exercise for Anxiety and Depression: A Preliminary Review of Current Research in an Emerging Field. *Journal of Clinical Medicine*, 7(3), 42. <https://doi.org/10.3390/jcm7030042>

STATEMENTS

\$10k Up to \$10k cost reduction per patient ⁽²⁾

14.6% VR reduces the marginal costs of the last day of hospitalization by at least 14.6% ⁽³⁾

\$654 The difference between the in-clinic vs the home-base interventions was \$654.72 ⁽⁴⁾

(1) <https://biomedeng.jmir.org/2019/1/e15025/>

(2) <https://tinyurl.com/y765xxc2>

(3) <https://www.nature.com/articles/s41746-018-0026-4>

(4) http://www.nrhb.webs.upv.es/wp-content/uploads/2018/01/NRHB_2015_APMR-2.pdf



Gràcies!



www.psious.com