A stylized sun graphic on the left side of the slide. It features a solid yellow circle at the bottom, with several yellow dashed lines of varying lengths radiating upwards and to the right, suggesting rays of light. The background is a gradient from orange at the top to white at the bottom, with a large white semi-circle on the right side.

# Intervenciones de salud mental digital: algunas experiencias recientes en Latino America

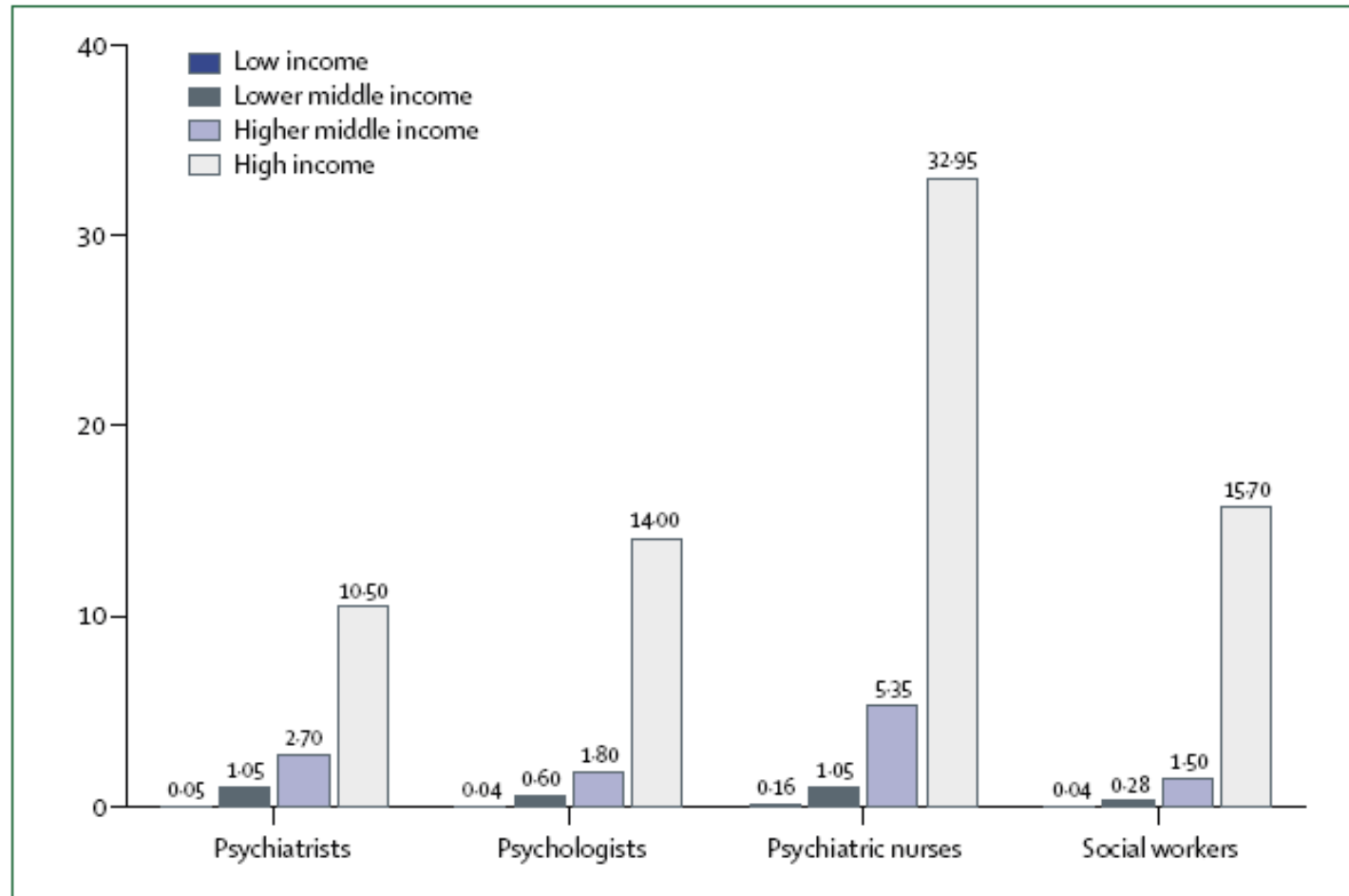
Professor Ricardo Araya  
King's College London

# La brecha de tratamiento

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- 10-20% con trastorno mental recibe tratamiento en LMIC

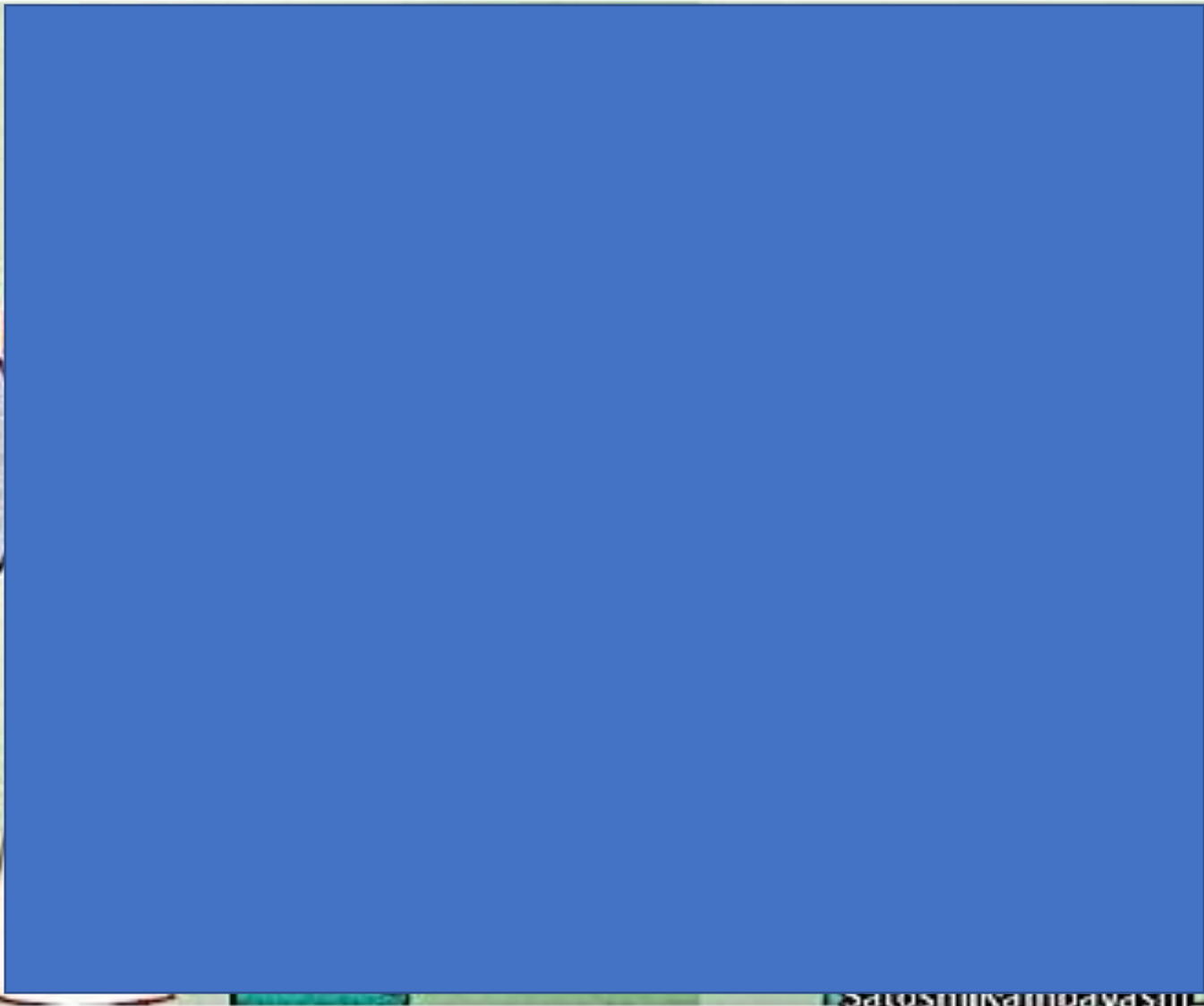




**Figure 2: Human resources for mental health in each income group of countries per 100 000 population**



# Delegación de tareas





## Delegación de tareas

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Tareas específicas se trasladan, cuando sea apropiado, de especialistas a otro personal (PNE) para mejorar el uso eficiente de los recursos humanos disponibles.

---

Todo esto con capacitación, apoyo y supervisión adecuados (posiblemente apoyado por medios digitales)



# Resultados

---

Éxito en términos de demostrar  
eficacia

---

Pero casi nada se implementó a  
mayor escala

---

La evidencia científica es solo un  
obstáculo menor

---

Las limitaciones financieras y la  
voluntad política son problemas  
mayores



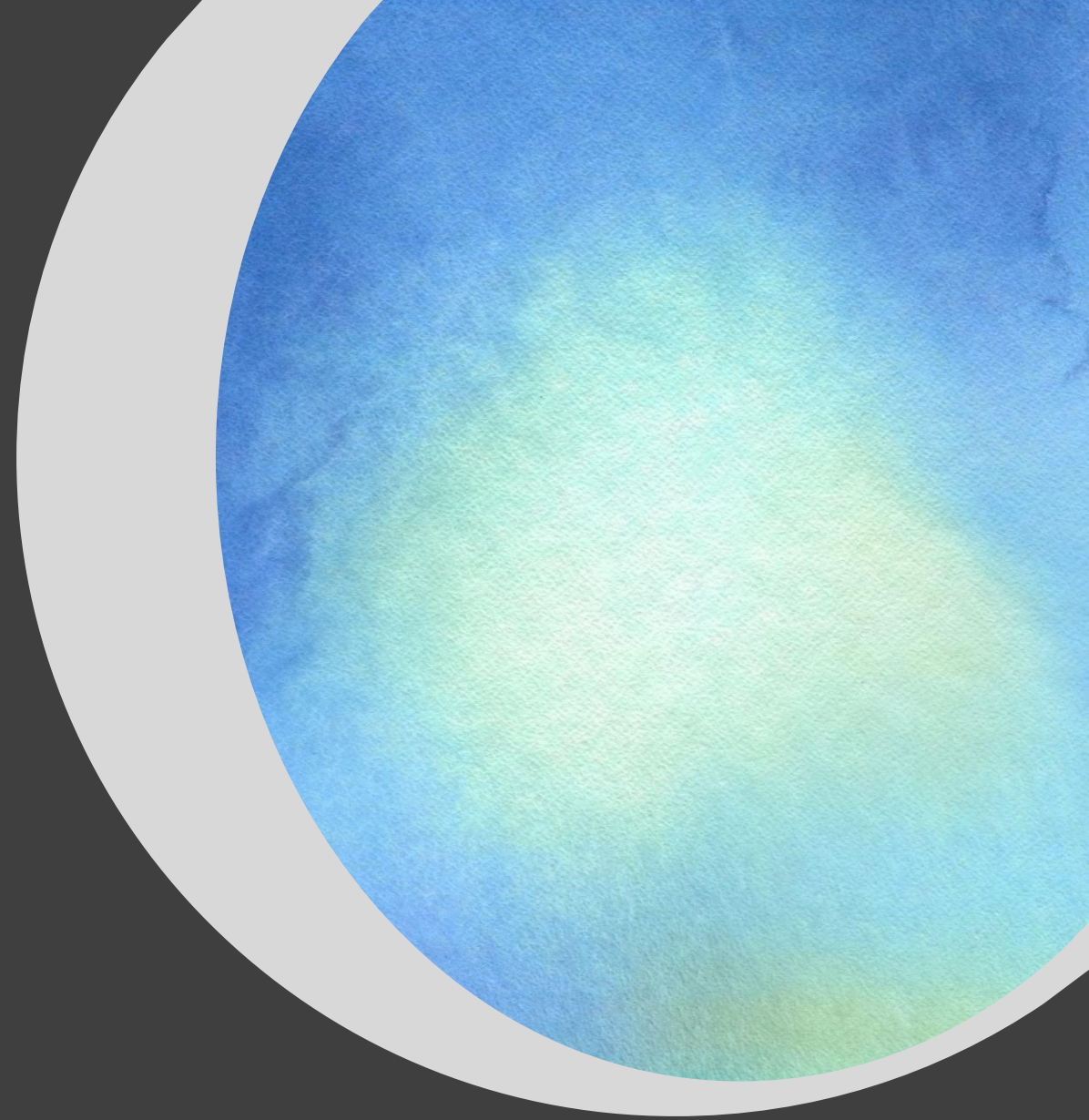
# OTROS PROBLEMAS

**PNE sobrecargados  
con otras tareas**

**Los PNE no son  
recompensados por  
tareas adicionales**

**PNE no capacitados,  
apoyados o  
supervisados**

**Tensiones dentro de  
los equipos debido a  
los cambios de roles**



# Delegando a la tecnología

---

- **SIN APOYO** : sitios web; aplicativos, juegos
- **CON APOYO**: App + f-2-f
- **EN VIVO**: Chat o teléfono o teleconferencia
- 
- **Otras funciones**: identificar casos, registros electrónicos, apoyar, capacitar, supervisor, etc



# ALGUNOS EJEMPLOS

A decorative white torn paper effect runs horizontally across the bottom of the page, with irregular, jagged edges that create a layered, paper-like appearance against the black background.






# PROACTIVE

## Apoyo a PNE





- **Aplicación móvil para apoyar intervención por PNE:**
- materiales para ser utilizados en las sesiones: videos
- cuestionarios para monitorear el estado de ánimo, el riesgo de suicidio, o niveles de actividad
- Listas de chequeo para garantizar fidelidad



PROACTIVE  
ECR intervencion  
comunitaria para depresión  
adultos mayores en São  
Paulo, Brazil

# Uso de la aplicación – intervención piloto

---



# WELCOME TO PROACTIVE



Programme for the treatment  
of late life depression  
Brazil

# PROACTIVE: Resultados a 8 y 12 meses

	Intervention group	Control group	OR (95% CI)*†	p value
Primary outcome: recovery from depression at 8 months‡	158/253 (62.5%)	125/284 (44.0%)	2.16 (1.47–3.18)	<0.0001
Secondary outcome: recovery from depression at 12 months	115/193 (59.6%)	77/188 (41.0%)	2.33 (1.45–3.71)	<0.0001

Data are n/N (%) unless otherwise indicated. OR=odds ratio. PHQ-9=9-item Patient Health Questionnaire. \*ORs and 95% CIs were calculated using random-effects logistic regression models. †All estimates had missing data imputed by intervention group using multiple imputation by chained equations models that included baseline PHQ-9 scores, stratification (median proportion of adults aged  $\geq 60$  years with no formal education), and predictors of missingness (appendix p 2). ‡Defined as a PHQ-9 score <10.

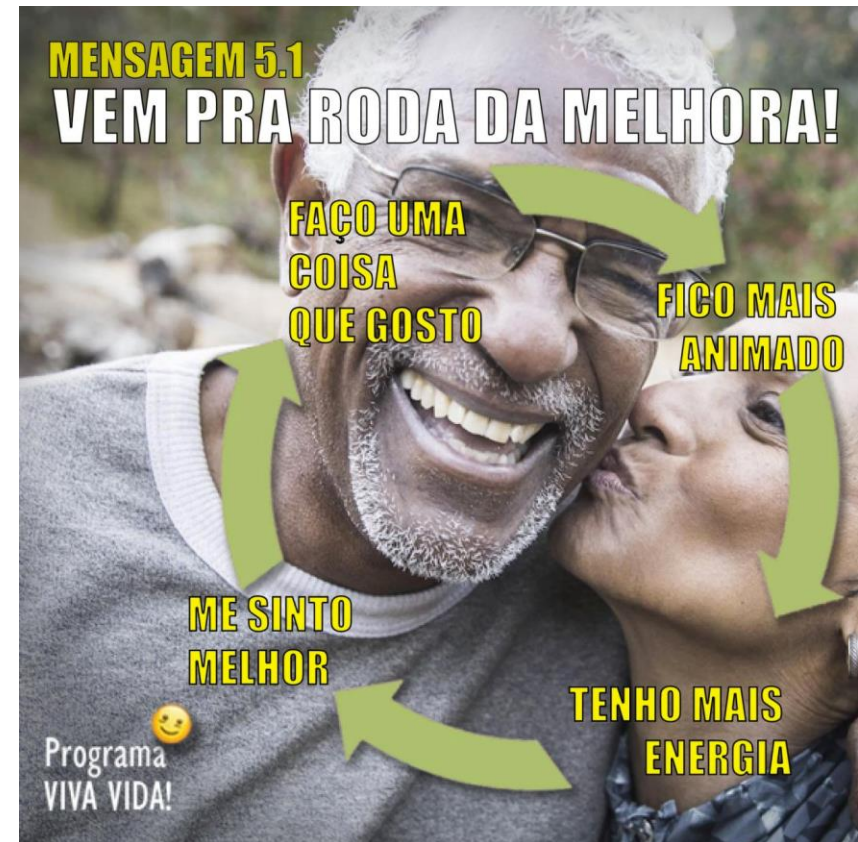




# PRODIGITAL

Sin apoyo





PRODIGITAL: Whatsapp

# **mensagem 01**

**[MESSAGE 01]**

Conhecendo mais sobre o  
Programa Viva Vida.

**[KNOWING MORE ABOUT THE VIVA VIDA PROGRAM]**



**Primary (PHQ-9<10 - recovery) and secondary (PHQ-9 scores reduced by at least 50% - improvement) depression outcomes at three- and five-month follow-ups**

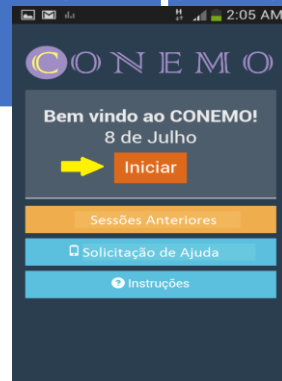
	Viva Vida	Enhanced Usual Care		
	No./total No. (%) <sup>a</sup>	No./total No. (%) <sup>a</sup>	OR (95% CI) <sup>b,c</sup>	P Value
Primary outcome: recovery from depression at three months	109/257 (42.4)	87/270 (32.2)	1.56 (1.07, 2.27)	.021
Secondary outcome: recovery from depression at five months	127/250 (50.8)	130/260 (50.0)	1.02 (0.71, 1.47)	.892
Secondary outcome: Reduction in symptoms of depression at three months	95/257 (37.0)	73/270 (27.0)	1.56 (1.08, 2.28)	.019
Secondary outcome: Reduction in symptoms of depression at five months	111/250 (44.0)	112/260 (43.1)	1.03 (0.73, 1.46)	.888



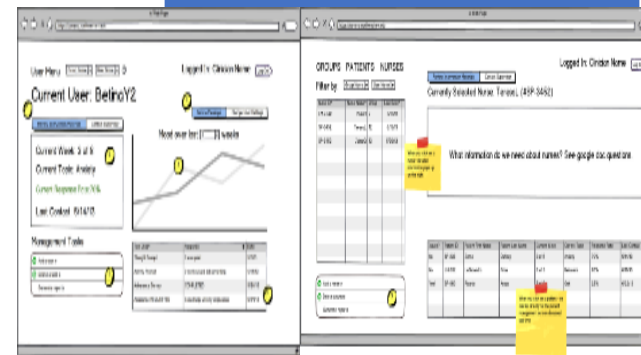
**TRATAMIENTO DE LA DEPRESION EN  
PERSONAS CON  
HIPERTENSION/DIABETES EN PERU  
Y BRAZIL**

# CONEMO

Aplicación en  
smartphone



Dashboard  
enfermeira



# CONEMO

The centers involved in CONEMO development are located at Northwestern University (at the The Feinberg School of Medicine's Center for Behavioral Intervention Technologies -CBITs) in the USA, the University of São Paulo School of Medicine, in Brazil, and Universidad Peruana Cayetano Heredia (UPCH), in Peru.



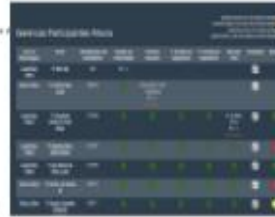
## MANAGEMENT OF THE APP AND THE DASHBOARD



The NA will conduct a training session with the participant in their first in face-to-face meeting in order to instruct how to use CONEMO.

The participant will receive a notification on the smartphone every time a new session is available (3 times a week).

The participant is able to view previous sessions anytime he wants, as well as ask NA's help through the app.



The Nurse Assistant (NA) Dashboard is a web interface, which allows the NA to keep up with participants' use of the CONEMO application, eventual difficulties and tasks to be resolved.



The Supervisor Dashboard displays information about all participants of NAs undergoing supervision. Through this dashboard, the Supervisor assigns new participants and access their



**QUESTION** What is the effect of a behavioral activation digital intervention delivered over a 6-week period on depressive symptoms in patients with comorbid hypertension or diabetes in South America?

**CONCLUSION** Findings from these 2 trials show that a digital intervention for patients in Peru and Brazil with hypertension or diabetes significantly improved depressive symptoms at 3 months compared with enhanced usual care, but the effects were not sustained at 6 months.

**POPULATION**

1113 Women  
199 Men



Adults with significant depressive symptoms (PHQ score  $\geq 10$ ) treated for hypertension and/or diabetes

Mean age: 56 years in Brazil  
60 years in Peru

**LOCATIONS**

20 sites in São Paulo, Brazil  
7 sites in Lima, Peru

**INTERVENTION**



880 Patients randomized in 10 clusters in Brazil  
432 Patients randomized in Peru

440 in Brazil, 217 in Peru

**Digital intervention**  
18-Session, low-intensity intervention delivered over 6 weeks via smartphone

440 in Brazil, 215 in Peru

**Usual care**  
Enhanced usual care, including referrals to specialty care for depressive symptoms

**PRIMARY OUTCOME**

Patients with  $\geq 50\%$  reduction in Patient Health Questionnaire-9 (PHQ-9) score (range, 0-27; higher score = more severe depression) at 3 months

**FINDINGS**

© AMA

Patients with  $\geq 50\%$  reduction in PHQ-9 score at 3 months

	Digital intervention	Usual care
Brazil	40.7% (159 of 391 patients)	28.6% (114 of 399 patients)
Peru	52.7% (108 of 205 patients)	34.1% (70 of 205 patients)

Difference in Brazil: **12.1** percentage points  
(95% CI, 5.5 to 18.7),  $P = .001$

Difference in Peru: **18.6** percentage points  
(95% CI, 9.1 to 28.0),  $P < .001$



# Adherencia

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En Sao Paulo, 199 (45%) completaron las 18 sesiones, y el 65% completó 9 o más sesiones.

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En Lima, 169 (78%) completaron todas las sesiones, y 200 (92%) completaron 9 o más sesiones.

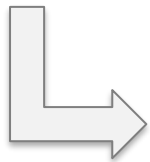
# Allillanchu Project

1. Detección precoz
2. Remisión oportuna
3. Acceso al tratamiento
- 4.

Los proveedores de atención primaria de salud (PHCP) evalúan el bienestar emocional de las personas como una práctica común



How?



**Adiestramiento**  
PHCP recibió capacitación y supervisión específicas



**.APP**  
Prueba de detección en una tableta



**SMS**  
Recordar y motivar a los pacientes a buscar atención de salud mental

# Intervention

Early detection of  
mental disorders

Opportune referral to  
mental health services

Informed and motivated  
patients seek mental  
health care

## Patients:

Pregnant, Tuberculosis,  
HIV/AIDS, Diabetes  
and Hypertension



## Screening



## Referral



## Help Seeking



## Access



Patients  
Recruitment



Primary Health Care Workers  
Support and Supervision

## Resultados



**72.4% (92/127) sought specialized care**

**55.1% (70/127) of referred patients received specialized care**



# Chile : Juegos para mejorar habilidades cognitivas y no cognitivas en preescolares



Hemos desarrollado una plataforma de juegos apoyada por Early Years Teachers (EYT) para niños en edad preescolar con módulos sobre resolución de problemas sociales, control inhibitorio, regulación emocional y memoria de trabajo. Actualmente estamos probando la usabilidad con niños en edad preescolar.

# Intervention: JAPI

**Juego digital entregado a través de una tableta :**

- Cognitivo: Memoria de trabajo y control de la inhibición
- No cognitivo: reconocimiento de emociones y resolución de problemas sociales
- 10 sesiones: cada sesión combinó dos habilidades (cognitivas y no cognitivas)
- 20 min cada sesión
- Los estudiantes jugaron en el aula



# Desafíos



- Baja aceptación, especialmente en el mundo real
- Baja conectividad (trabajar sin conexión)
- Alfabetización (tanto tecno como lectura, manténgalo simple y breve)
- Costos inciertos ('ofertas especiales')
- Privacidad (teléfonos y datos compartidos)
- Acceso desigual a la tecnología
- Falta de estudios que prueben efectividad
- Dificultades en la implementación