

# AGING, HIV, MENTAL HEALTH AND COVID-19

Fátima Brañas

Servicio de Geriatría

Hospital Universitario Infanta Leonor.

Madrid (Spain)





- What does aging mean?
- O How does aging affect the mental health of people with HIV?
- What do we know about aging, HIV and COVID-19?
- What are the physical and psychological consequences of COVID-19?
- What are the main health needs of older adults with HIV in the COVID-19 era?



# 2020

17.550.000 > 50 yo adults living with VIH





# 2030

25.623.000 > 50 yo adults living with VIH

13.689.000 older than 65 yo adults living with VIH



# What does aging mean?



Physiological

Aging ≠ Disease

Complex

NO single cause
NO single answer

Repair and maintenance

mechanisms

ENVIRONMENTAL GENETIC & NEUD-HORMONAL FACTORS

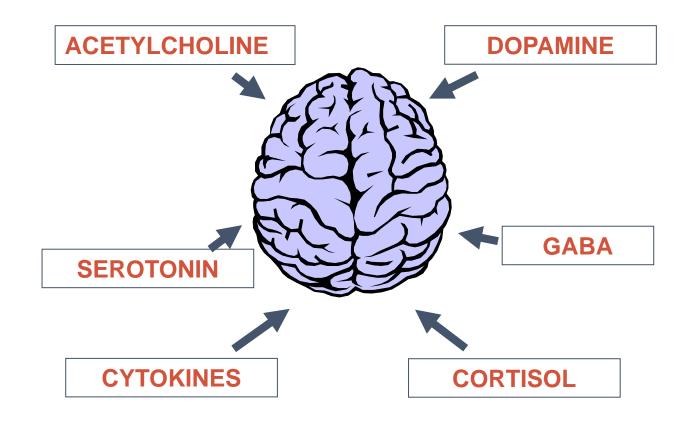
ENVIRONMENTAL GENETIC & NEUD-HORMONAL FACTORS

NOT lineal or uniform \_\_\_\_\_\_ individual variability





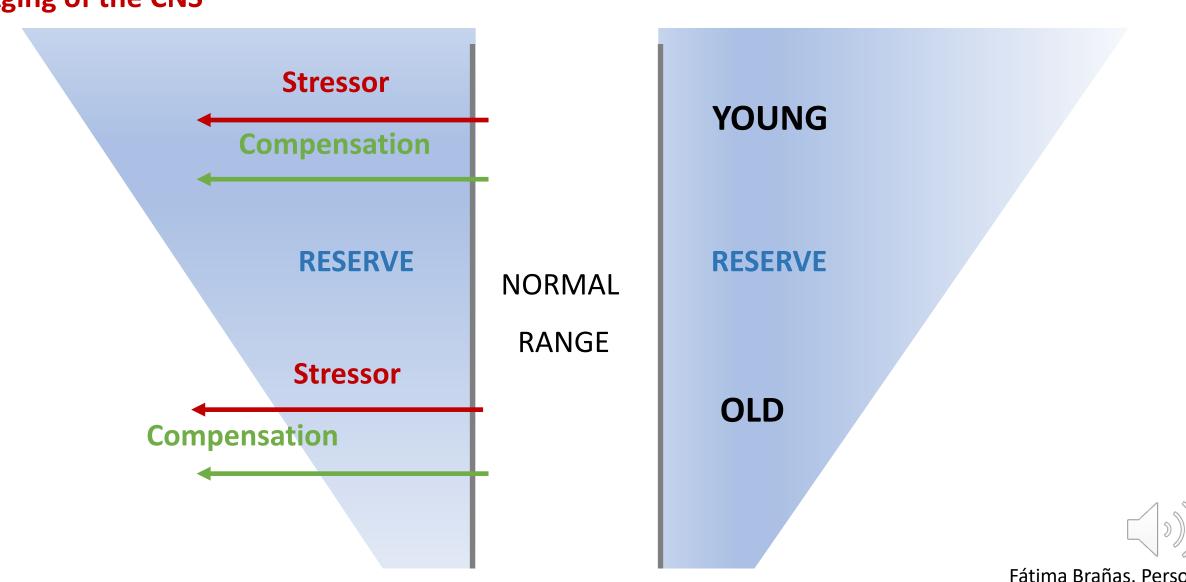
## Aging of the CNS





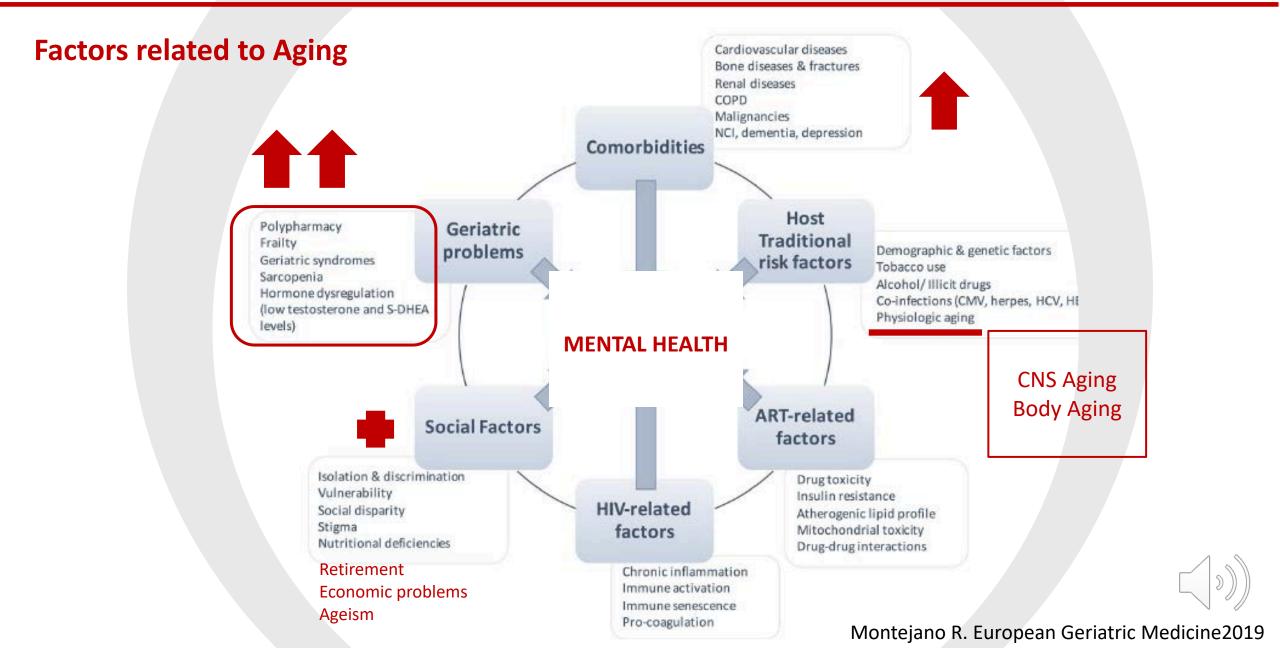


## Aging of the CNS



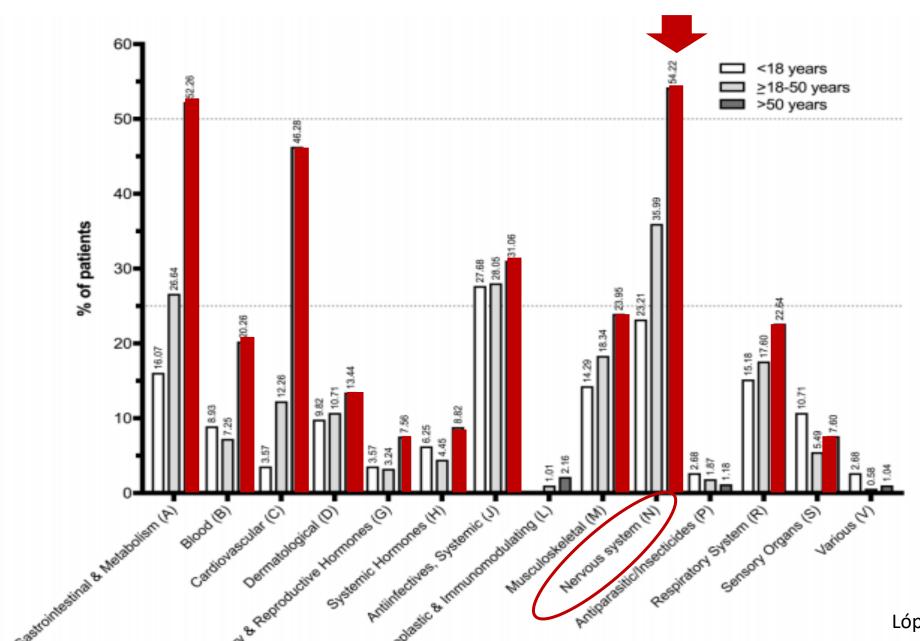
## How does aging affect the mental health of people with HIV?



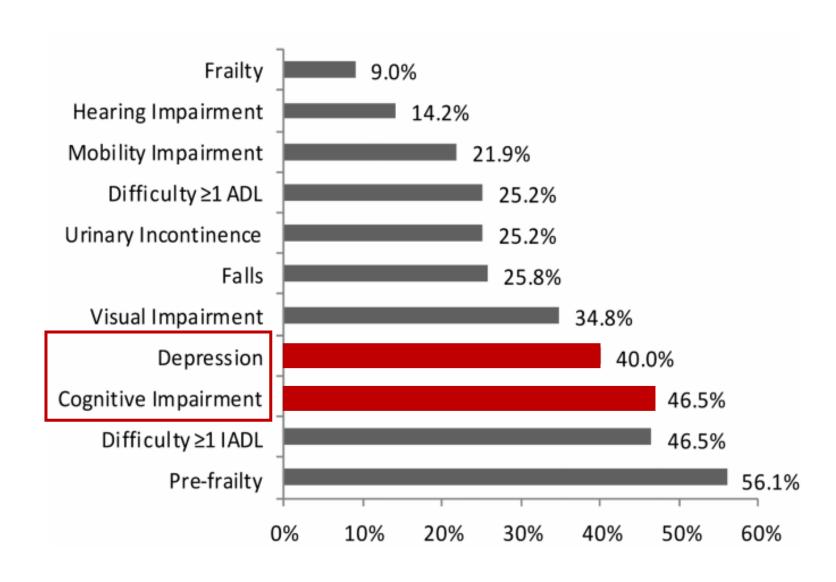


## How does aging affect the mental health of people with HIV?





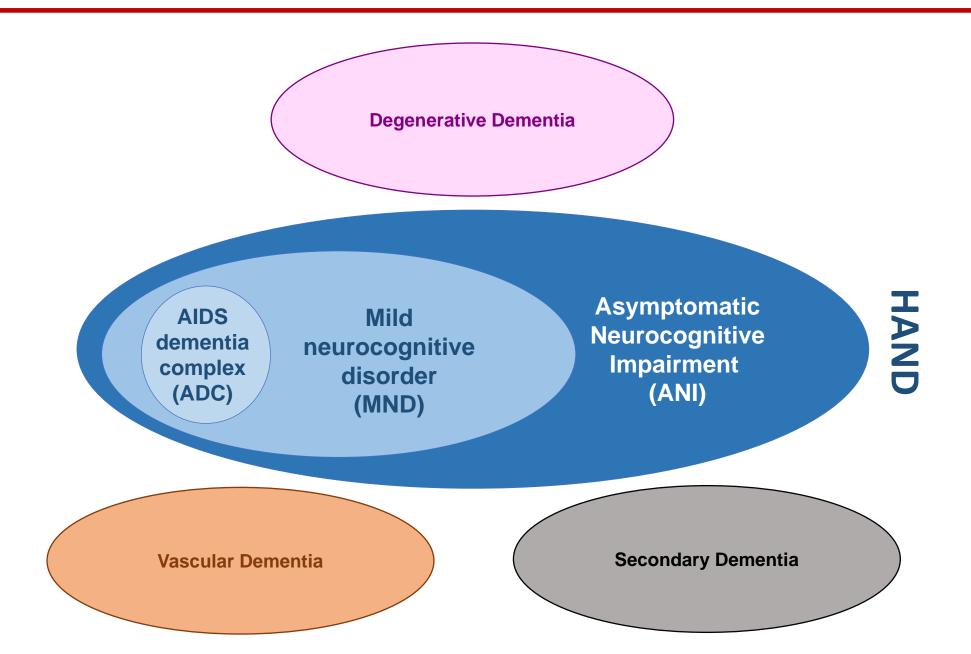






# How does aging affect the mental health of people with HIV?







## What do we know about aging, HIV and COVID-19?



### **COVID-19, HIV and hospitalization**





South Africa Study. Boulle A. Clin Infect Dis. 2020

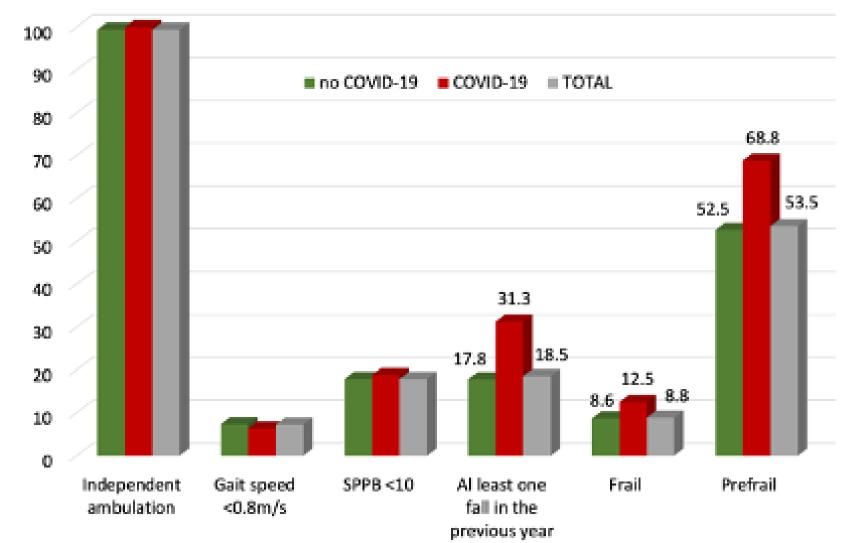
New York City Study. Richardson S. JAMA. 2020

Madrid Study. Borobia A. J Clin Med 2020





### **COVID-19, HIV and hospitalization**





Brañas F. Still unpublished

### What do we know about aging, HIV and COVID-19?





((HIV) AND (COVID-19)) AND (MENTAL HEALTH)



Search

Early impact of **COVID-19** social distancing measures on reported sexual behaviour of HIV pre-exposure prophylaxis users in Wales.

Contrasting the Perceived Severity of COVID-19 and HIV Infection in an Online Survey of Gay, Bisexual, and Other Men Who Have Sex With Men During the U.S. COVID-19 Epidemic.

**COVID-19** and the **Changes in the Sexual Behavior** of Men Who Have Sex With Men: Results of an Online Survey.

<u>Letter to the Editor: Vulnerability to COVID-19-related Harms Among Transgender Women</u> With and Without HIV Infection in the Eastern and Southern U.S.

The Psychosocial Effects of the COVID-19 Pandemic on Youth Living with HIV in Western Kenya.

Economic, Mental Health, HIV Prevention and HIV Treatment Impacts of COVID-19 and the COVID-19 Response on a Global Sample of Cisgender Gay Men and Other Men Who Have Sex with Men.

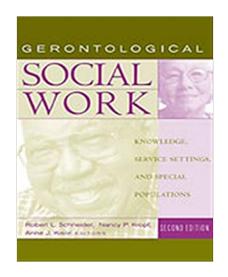
**COVID-19**: Increased Risk to the **Mental Health** and Safety of **Women Living with HIV** in South Africa.



# Impact of COVID-19-related stress and lockdown on mental health among people living with HIV in Argentina

<u>Jamile Ballivian 1, Maria L Alcaide 2, Diego Cecchini 1, Deborah L Jones 3, John M Abbamonte 3, Isabel Cassetti 1</u>





# The Impact of COVID-19 on Older Adults Living with HIV: HIV Care and Psychosocial Effects

Monique J Brown 1234, Sharon B Weissman 5



## What are the physical and psychological consequences of COVID-19?



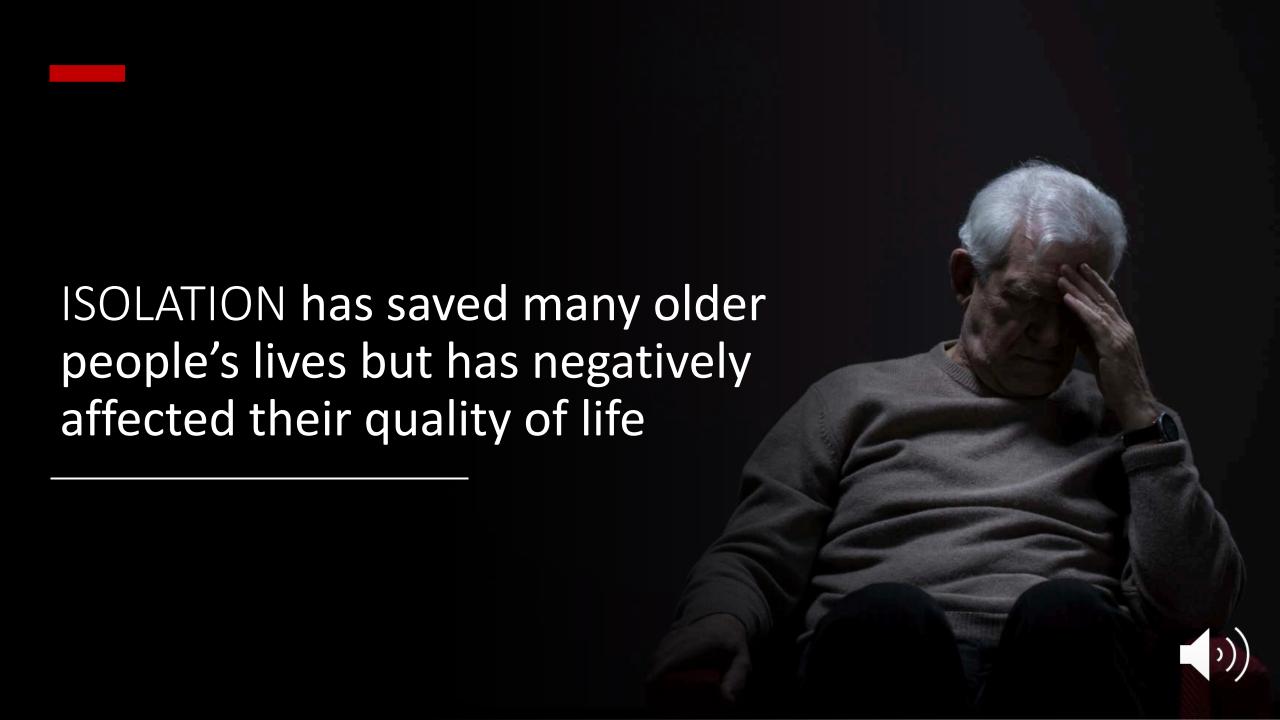
### The COVID-19 per se

- Fatigue
- breathlessness
- Weight loss
- Functional decline
- Headache
- Fear
- Isolation
- Loneliness

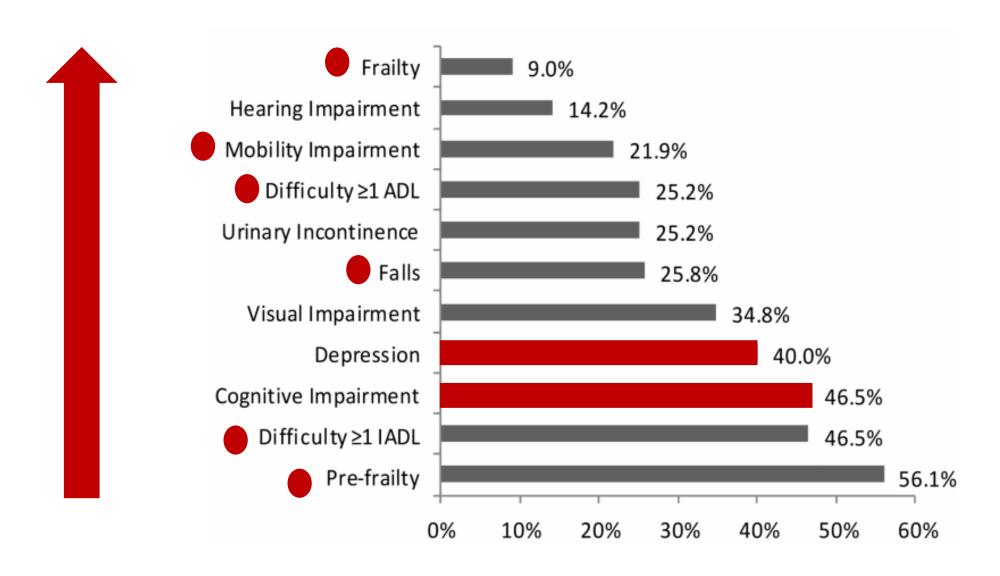
#### **Collateral effects of COVID-19**

- Isolation
- Loneliness
- Functional decline
- Poor diet
- Worsening of mental disorders
- Depression
- The loss of a loved one
- Fear











# What are the physical and psychological consequences of COVID-19?











# What determines cognitive functioning in the oldest-old? The EMIF-AD 90+ Study

Table 1. Clinical characteristics and correlates of cognition in the total sample and separately for the cognitively normal (CN) and impaired (CI) individuals

				C	ognitive gro	up	
	N	Total	N	CN	N	CI	p-value
Clinical characteristics							
Age, y	122	92.4 (2.8)	84	92.8 (2.9)	38	91.6 (2.4)	<b>0.02</b> <sup>e</sup>
Sex, female <sup>a</sup>	122	70 (57.4)	84	45 (53.6)	38	25 (65.8)	$0.29^{\mathrm{f}}$
Education, y	122	11.4 (3.4)	84	11.2 (3.4)	38	11.9 (3.3)	$0.32^{\rm g}$
MMSE, points	122	27.1 (3.1)	84	28.5 (1.5)	38	23.8 (3.3)	<b>&lt;0.01</b> <sup>g</sup>
CERAD memory test, words	114	15.6 (4.8)	79	17.6 (3.8)	35	11.2 (3.5)	<0.01 <sup>e</sup>
Hypertension <sup>b</sup>	122	84 (69.0)	84	58 (69.0)	38	26 (68.4)	$1.00^{\mathrm{f}}$
Diabetes mellitus <sup>b</sup>	122	8 (7.0)	84	5 (6.0)	38	3 (7.9)	$0.70^{\rm h}$
Atrial fibrillation <sup>b</sup>	122	21 (17.0)	84	11 (13.1)	38	10 (26.3)	D3)





# What determines cognitive functioning in the oldest-old? The EMIF-AD 90+ Study

Table 1. Clinical characteristics and correlates of cognition in the total sample and separately for the cognitively normal (CN) and impaired (CI) individuals

				Co	gnitive group	p	
	N	Total	N	CN	N	CI	p-value
Physical parameters							
Handgrip strength males, kg	50	21.3 (7.0)	38	22.5 (6.7)	12	17.5 (6.8)	<b>0.04</b> <sup>e</sup>
Handgrip strength females, kg	66	11.5 (4.6)	44	12.3 (4.0)	22	9.9 (5.4)	$0.08^{e}$
Muscle mass index, kg/m <sup>2</sup>	95	9.0 (1.0)	66	9.2 (1.0)	29	8.8 (1.0)	$0.09^{e}$
SPPB, points	103	7.5 (2.8)	70	8.0 (2.7)	33	6.2 (2.6)	<b>&lt;0.01</b> <sup>e</sup>



# The physical and psychological consequences of the COVID-19



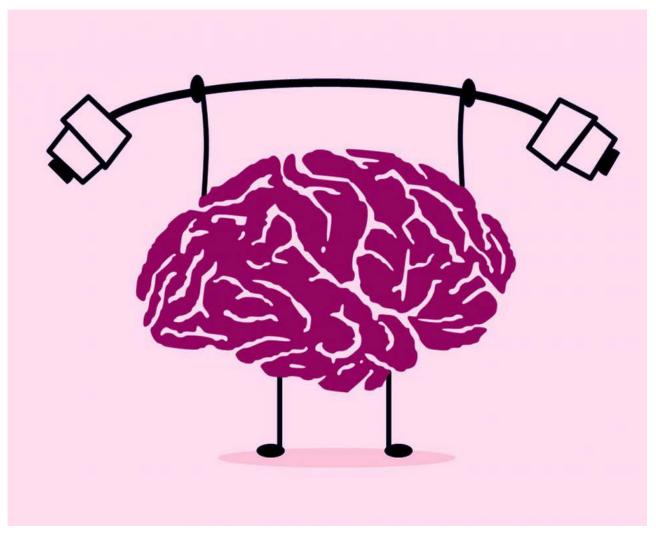
#### COVID-19, Psychological Well-being and Physical Activity Levels in Older Adults During the Nationwide Lockdown in Spain

TABLE 1. Differences According to Whether Older Adults Meet the WHO's Global Recommendations on Physical Activity for Health

	VPA				MPA				MVPA			
	No	Yes	p	ES	No	Yes	p	ES	No	Yes	p	ES
$\overline{\operatorname{Sex} n(\%) x^2}$												
Female	203 (52.6)	40 (43.0)	0.097	0.08	174 (51.3)	72 (50.0)	0.790	0.01	149 (51.79	94 (49.2)	0.589	0.02
Male	183 (47.4)	53 (57.0)			165 (48.7)	72 (50.0)			139 (48.3)	97 (50.8)		
Age M(SD) U	65.53 (5.51)	65.49 (4.91)	0.800	0.01	65.40 (5.33)	65.71 (4.68)	0.134	0.07	65.40 (5.33)	65.71 (4.87)	0.153	0.07
BMI $n$ (%) $x^2$			0.680	0.04			0.247	0.07			0.088	0.08
Underweight	4(1.1)	0(0.0)			4(1.2)	0(0.0)			4 (1.4)	0 (0.0)		
Normal or healthy weight	168 (45.5)	43 (47.3)			143 (43.7)	71 (50.4)			115 (41.5)	96 (51.3)		
Overweight	141 (37.8)	36 (39.6)			125 (38.2)	53 (37.6)			112 (40.4)	65 (34.8)		
Obese	60 (16.1)	12 (13.2)			55 (16.8)	17 (12.1)			46 (16.6)	26 (13.9)		_
Depressive symptoms $M(DT)$ U	21.79 (4.12)	20.59 (3.66)	0.014	0.11	21.77 (4.18)	21.05 (3.70)	0.127	0.07	21.96 (4.23)	20.94 (3.71)	0.016	0.11
Resilience $M(DT)$ $U$												
Locus	2.87 (0.64)	3.05 (0.71)	0.003	0.14	2.86 (0.65)	2.98 (0.65)	0.079	0.08	2.86 (0.64)	2.98 (0.78)	0.035	0.10
Self-efficacy	2.88 (0.57)	3.02 (0.69)	0.002	0.15	2.89 (0.59)	2.94 (0.58)	0.444	0.03	2.86 (0.57)	2.96 (0.63)	0.049	0.09
Optimism	2.86 (0.60)	3.04 (0.70)	0.001	0.15	2.88 (0.61)	2.93 (0.63)	0.417	0.04	2.84 (0.59)	2.96 (0.66)	0.036	0.10
Affect $M(DT)$ $U$												
Positive	3.02 (0.73)	3.28 (0.91)	0.028	0.10	3.01 (0.77)	3.23 (0.72)	0.019	0.11	2.95 (0.74)	3.27 (0.80)	0.001	0.20
Negative	1.79 (0.60)	1.71 (0.68)	0.198	0.06	1.79 (0.60)	1.76 (0.62)	0.644	0.02	1.80 (0.62)	1.73 (0.61)	0.277	06

# THE GOLD RECOMMENDATION





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### What are the main health needs of older adults with HIV in the COVID-19 era?



- Take into account what is relevant for patient's quality of life.
- Global and comprehensive approach
- Multidisciplinary team
- Remotely-delivered interventions should be implemented.
- High quality studies in this field focused on older adults wit HIV are necessary



# THANK YOU

fbranas@gmail.com

