



UNIVERSITAT DE
BARCELONA

Vicerectorat de Doctorat
i Personal Investigador
en Formació

Time to Breathe: Doctoral Students' Emotional Well-being and Academic Performance

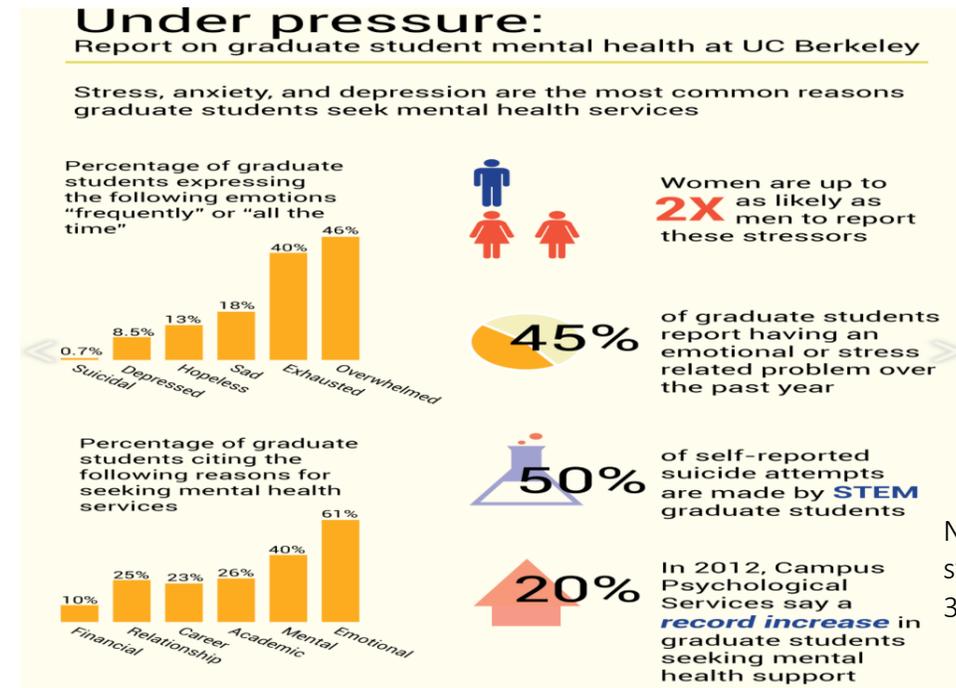
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Background to the research

- 1) In the last few years, **interest in doctoral students' emotional well-being and mental health has grown substantially**
- 2) Doctoral students are involved in a dynamic characterized by a **high workload, frequent assessments, pressure to publish in competitive journals, economic & employment precariousness and an uncertain future.**
- 3) Mentorship and thesis **supervision** has a great influence on the well-being of doctorate students

(Guthrie et al., 2017; Levecque et al., 2017; Nature: 20 April, 2017, Nature, 29 March, 2018; Nature, 06 May, 2019; Schmidt & Hansson, 2018; Walker, 2015; Woolston, 2017).



N = 2.500 graduate students (790 answers; 32%)

Source. The Graduate Assembly Graduate Student Happiness & Well-Being Report 2014. University of California, Berkeley



Background to the research

1) **Symptoms of anxiety and depression** are a frequent cause of **difficulties in concentrating** at work and when **making decisions**, and have an important influence on the **performance** of doctoral candidates.

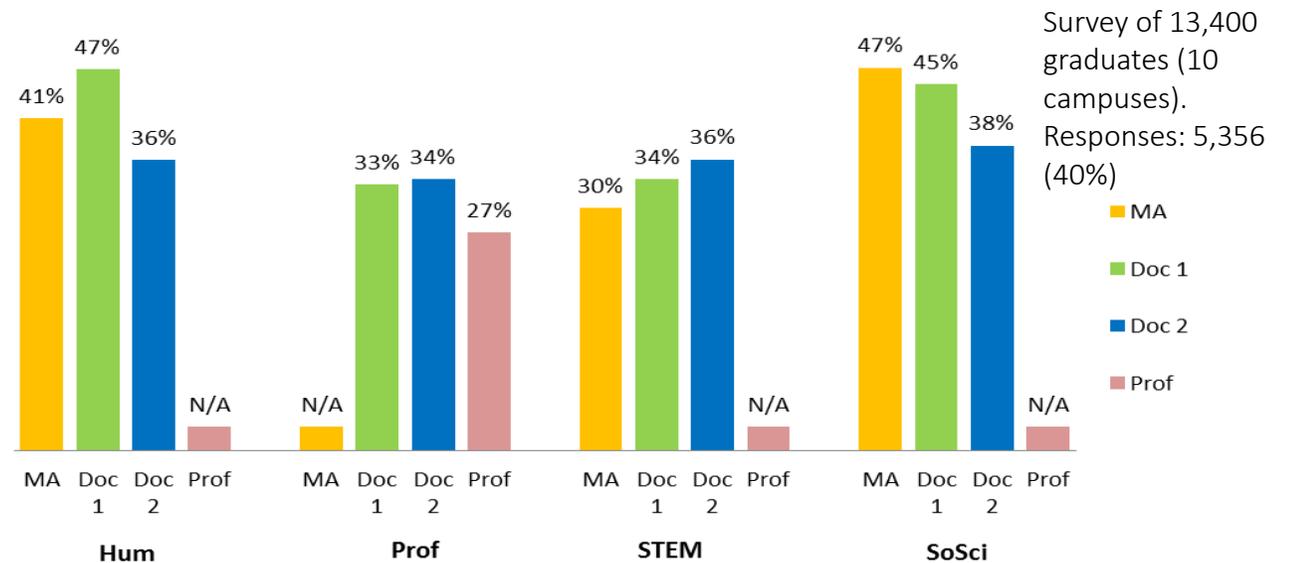
2016 Graduate Student Well-Being Survey. General Report. University of California, San Diego

2) The **prevalence of these symptoms** in doctoral candidates is **higher than** in community population.

The University of California Graduate Student Well-Being Survey Report. May 2017

Significant **correlations between satisfaction (+) commitment to studies and academic performance** and **(-) with symptoms of depression.**

Sample: 1.596. Answers, 750; 50% men; 48% women.





Aim of the research

- It is an institutional initiative, launched in 2018 (before the COVID-19 pandemics), aimed at assessing and launching, if it were needed, an action plan
- The whole process: participation in the study, preparation of the questionnaire and data processing, complies with the RGDP and has been endorsed by the [UB's ethics committee](#)
- Participation in the survey was on a voluntary basis

- 1) To analyze the **relationships** between difficulties in **concentrating** and **taking decisions** and **the writing** of the doctoral thesis, its **supervision**, and the **psychological symptoms** in a group of doctoral students **at the University of Barcelona (UB)**.
- 2) To set up an **initial "snapshot" to assess** whether the reality at the UB was similar to that reflected in the literature and...
- 3) Based on the results, **to launch an initial plan of action**.



Technical aspects

- 1) The sample was composed by 917 doctorate students from the second year onwards (334 men; 567 women; 3 non-binary, 3 others and 10 no answer), which completed a survey about emotional well-being, academic performance and the thesis supervision process.
- 2) Participants were divided in two groups: G1 (n = 405; 44.2%), which present concentration, memorizing and decision-making problems due to mental or emotional difficulties and G2 (n=512; 55.8%), without these difficulties.
- 3) The study presented here is a cross-sectional one, but the followings will be longitudinal. Panel design (Kenny, 1998)



Study Variables

1) Variables under analysis:

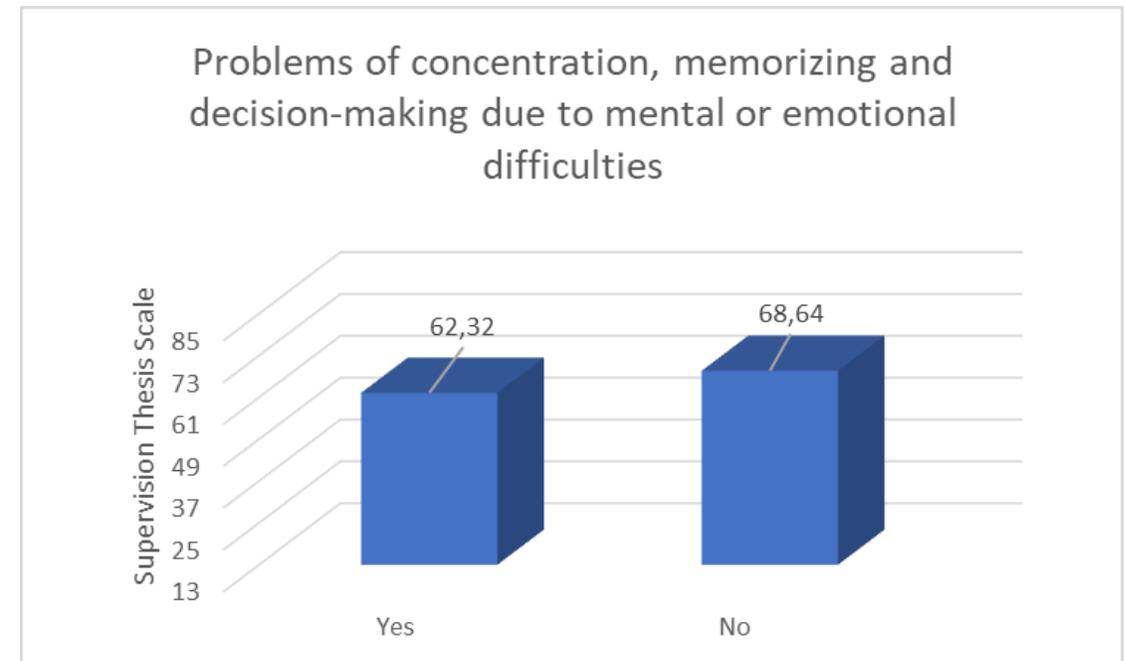
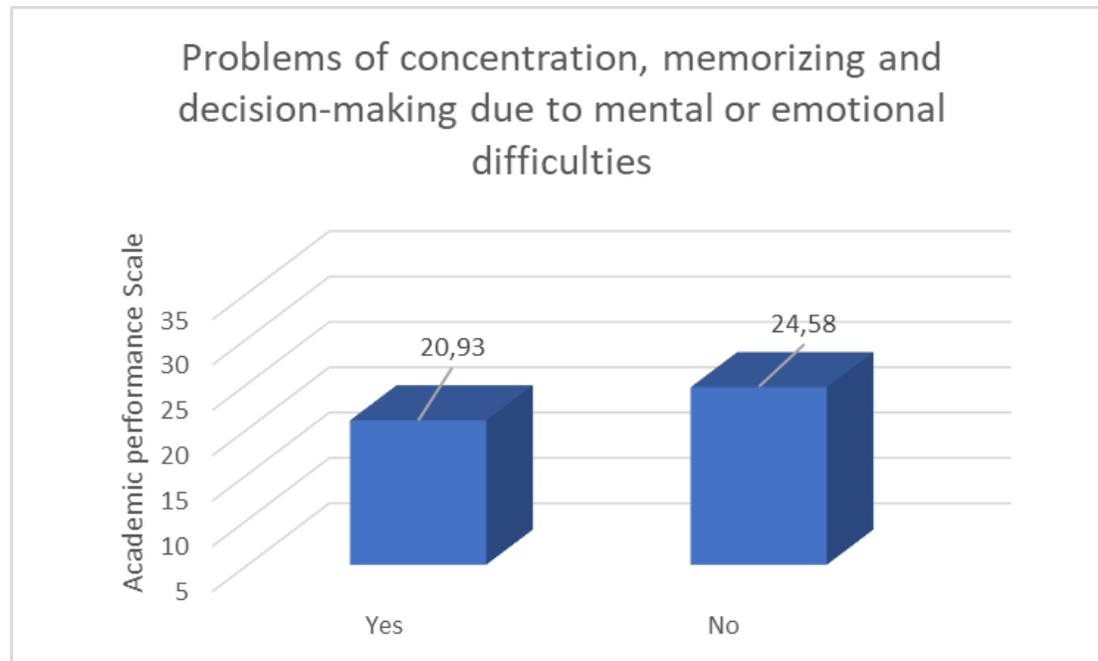
- a) Socio-economic and academic data
- b) Data related to wellbeing and stress symptoms (Different scales)
- c) Satisfaction with life (Diener, 1984; Diener et al, 1985; Dienet and Larsen, 1993)
- d) Life events (own elaboration)
- e) Anxiety symptoms (GAD7 Scale, Spitzer et al., 2006)
- f) Depression (Scale CDED-R; Van Dam & Earlywine, 2011)
- g) Health issues in the last academic year (own elaboration)
- h) Physical and mental well-being (own elaboration)
- i) Academic performance and thesis related work (own elaboration)
- j) Mentoring and thesis supervision process (own elaboration)



Selected results

Academic performance decreases (medium intensity)

Perception of the direction of the thesis has a strong influence on the doctoral candidate (low intensity)



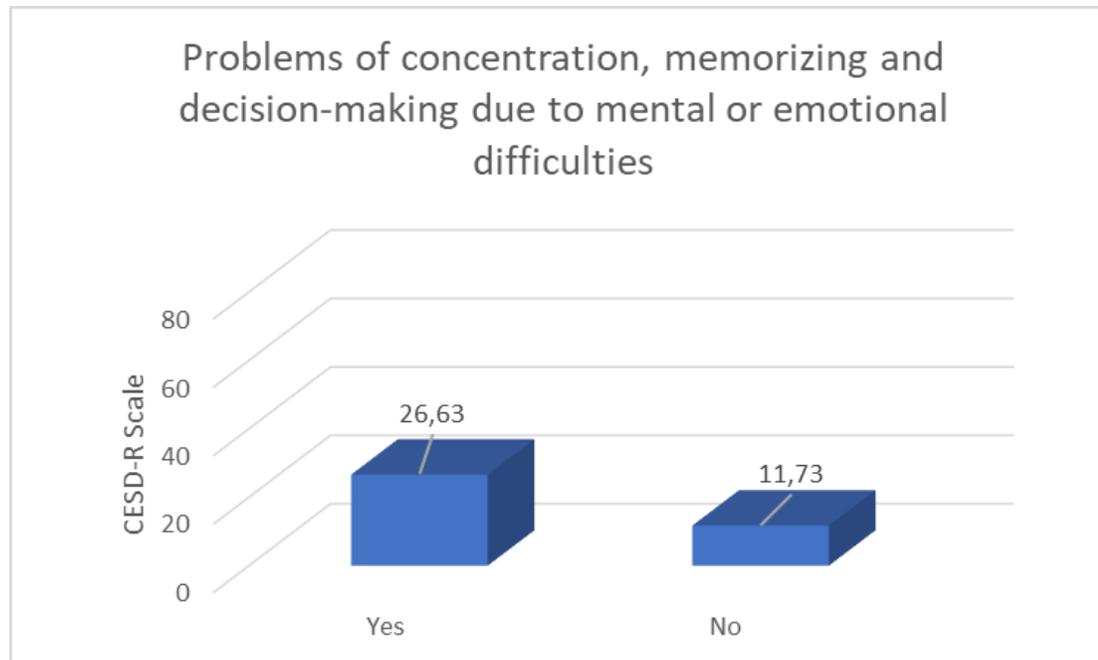
$t(899) = 9.16; p < .001; r = .292$

$t(797.57) = 5.18; p < .001; r = .180$



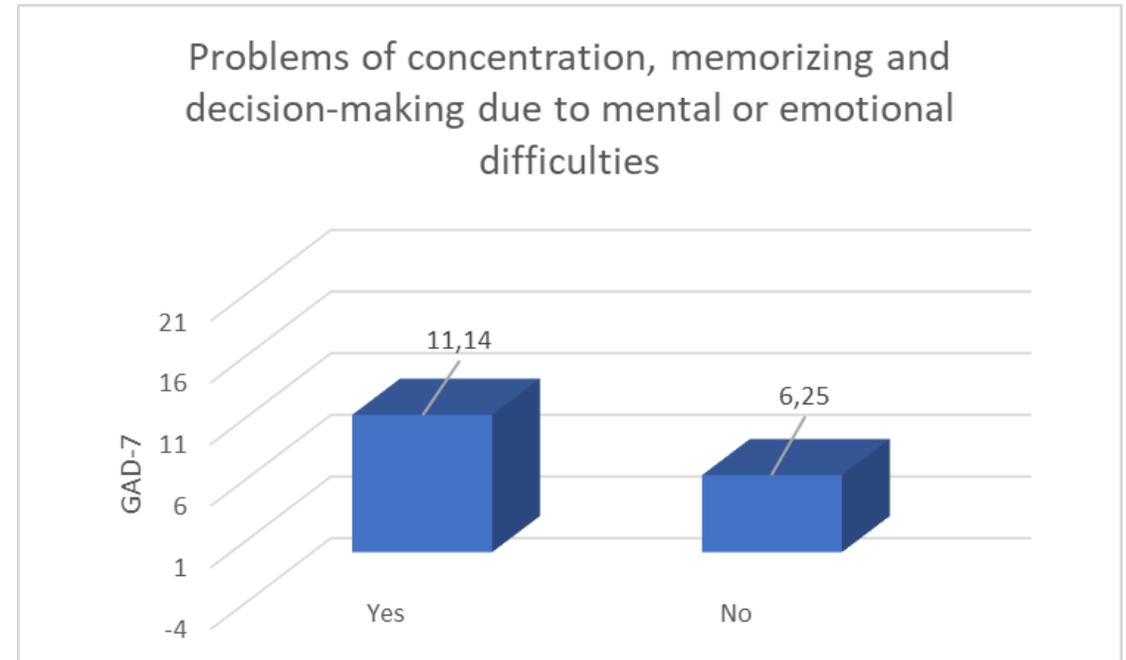
Selected results

Depression worsens performance (Strong intensity)



$t(646.79) = 16.23; p < .001; r = .538$

Anxiety worsens performance... (Strong intensity)



$t(897) = 15.18; p < .001; r = .452$



Conclusions: within a framework...

- 1) University education is a crucial period for the mental health of students, who report **higher levels of distress compared to the general population**.
- 2) University students showed concerning levels of distress, particularly concerning **anxiety, and depression**.
- 3) **Doctoral students, presented higher percentage of symptoms of anxiety and depression than other graduate students.**

UB's cross-section snapshot shows that our reality is quite similar to the one stated in the literature and surveys (Even slightly better...)



Conclusions

- 1) There are significant **positive correlations between satisfaction with studies and academic performance** and **negative with symptoms of depression**.
- 2) Strong, **supportive and positive supervising relationships** between graduate students and their PI/advisors correlate significantly with **less symptoms of anxiety and depression**:
 - a. a) in our sample, a **44.2% stated that they had a lot of difficulty** concentrating, remembering things or making decisions, **due to a mental health problem (G1)**, compared to **55.8% who did not have these problems (G2)**.
 - b. b) Students in the **G1** group presented:
 - **higher scores on depressive and anxiety symptoms** than the G2 group
 - **lower scores on the scales of academic performance and satisfaction with thesis supervision** than G2



Plan of action

- 1) Setting up a **training plan**
- 2) To draw up a **document of commitment/expectations** between doctoral students and directors
- 3) To grant scholarships to two doctoral candidates to dwell in the **University residence hall to act as mentors** (Buddy program)
- 4) To **renew the Senate of Doctors, to host mentoring programs** between young and senior PhDs and PhD trainees.



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Thank you for your attention!!

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