

## INTRODUCTION

The COVID-19 pandemic has significantly affected the physical and mental health of healthcare workers (HCWs), who have had to increase their workload during the acute phases of the crisis. Numerous studies have shown that HCWs experience higher levels of anxiety, stress, depression, and sleep disturbances during the pandemic [1,2,3].

While evidence suggests that nurses experience worse health outcomes compared than physicians, few studies have directly compared the effects of the pandemic on these two groups [4].

### OBJECTIVES:

1. The main purpose of the present study was to investigate the current mental health status and sleep quality relative to the pre-pandemic within a large population of Italian HCWs, focusing on the potential differences between medical doctors and nurses.
2. Furthermore, given the crucial relevance of working on the frontline (i.e., working directly with COVID-19-positive patients) [5], we also assessed its role separately for medical doctors and nurses.
3. Finally, we investigated the predictive value of the subjective experience with COVID-19 in determining the current health status and sleep quality among the entire sample of HCWs.

## METHOD

### PARTICIPANTS AND PROTOCOL:

In this study, we conducted a retrospective assessment to examine the impact of the pandemic on the mental health and sleep patterns of Italian nurses and medical doctors.

A total of 287 healthcare workers, including 212 nurses (M=45; age=45.41±0.75) and 75 physicians (M=28; age=48.13±1.34), participated in a web survey.

The survey covered various socio-demographic, psychological, and sleep-related aspects, referring to both the period before the pandemic and the period from February to June 2022.

### MEASURES:

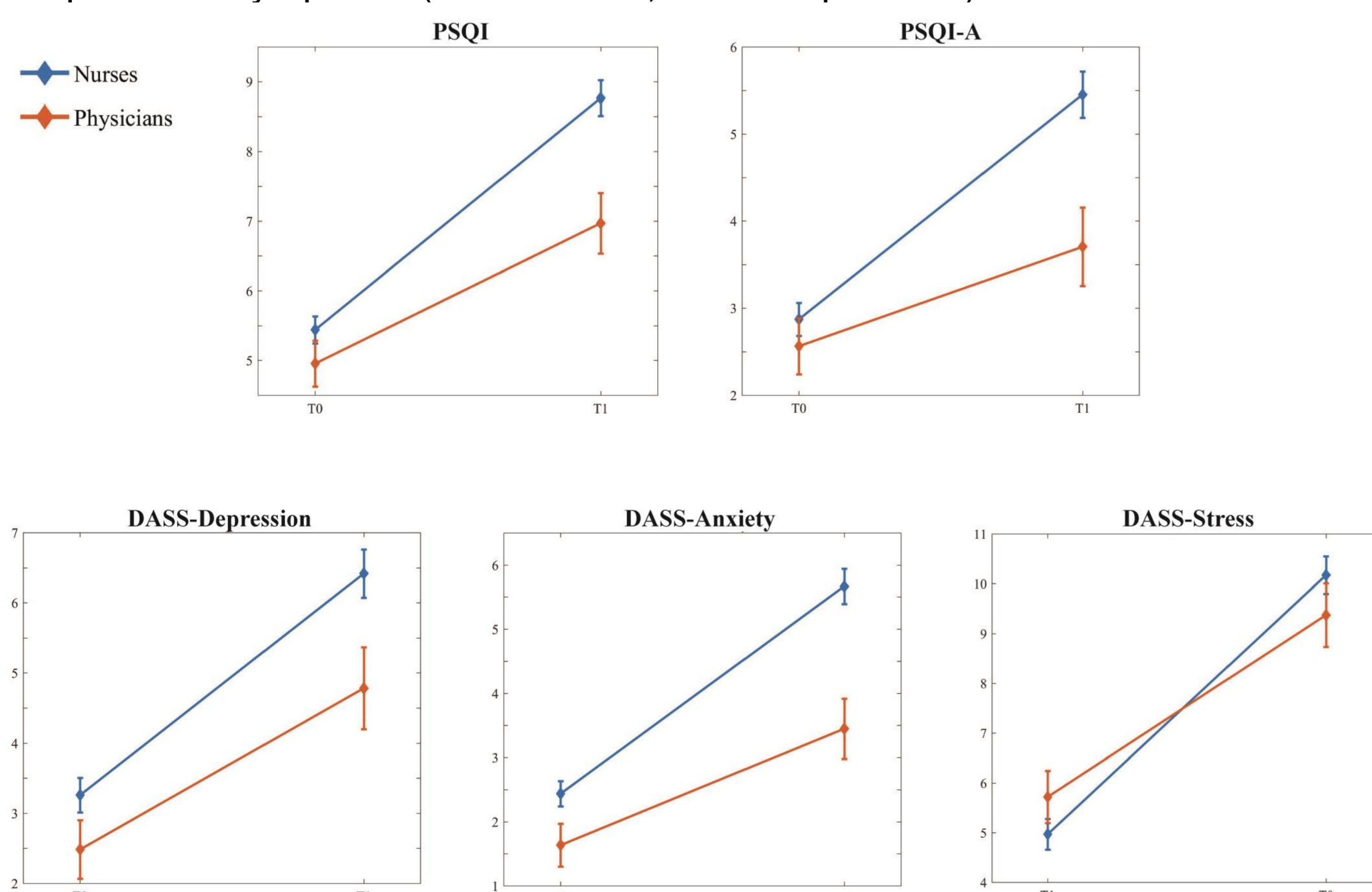
- Impact of Event Scale (IES) [6]
- Pittsburgh Sleep Quality Index (PSQI) [7] and PSQI-Addendum (PSQI-A) [8]
- Depression Anxiety Stress Scale (DASS-21) [9]

### STATISTICAL ANALYSES:

- (1) Two-way mixed MANCOVA ("Time" vs. "Profession"; covariate: "Years on the job") on sleep and psychological dependent variables (PSQI, PSQI-A, DASS-Depression, DASS-Anxiety, DASS-Stress)
- (2) Two-way mixed MANCOVAs ("Time" vs. "Working frontline"; covariate: "Years on the job") on sleep and psychological dependent variables (PSQI, PSQI-A, DASS-Depression, DASS-Anxiety, DASS-Stress), separately for nurses and medical doctors
- (3) Multiple linear regressions to assess the best COVID-19-related predictors for the current scores on sleep and psychological well-being

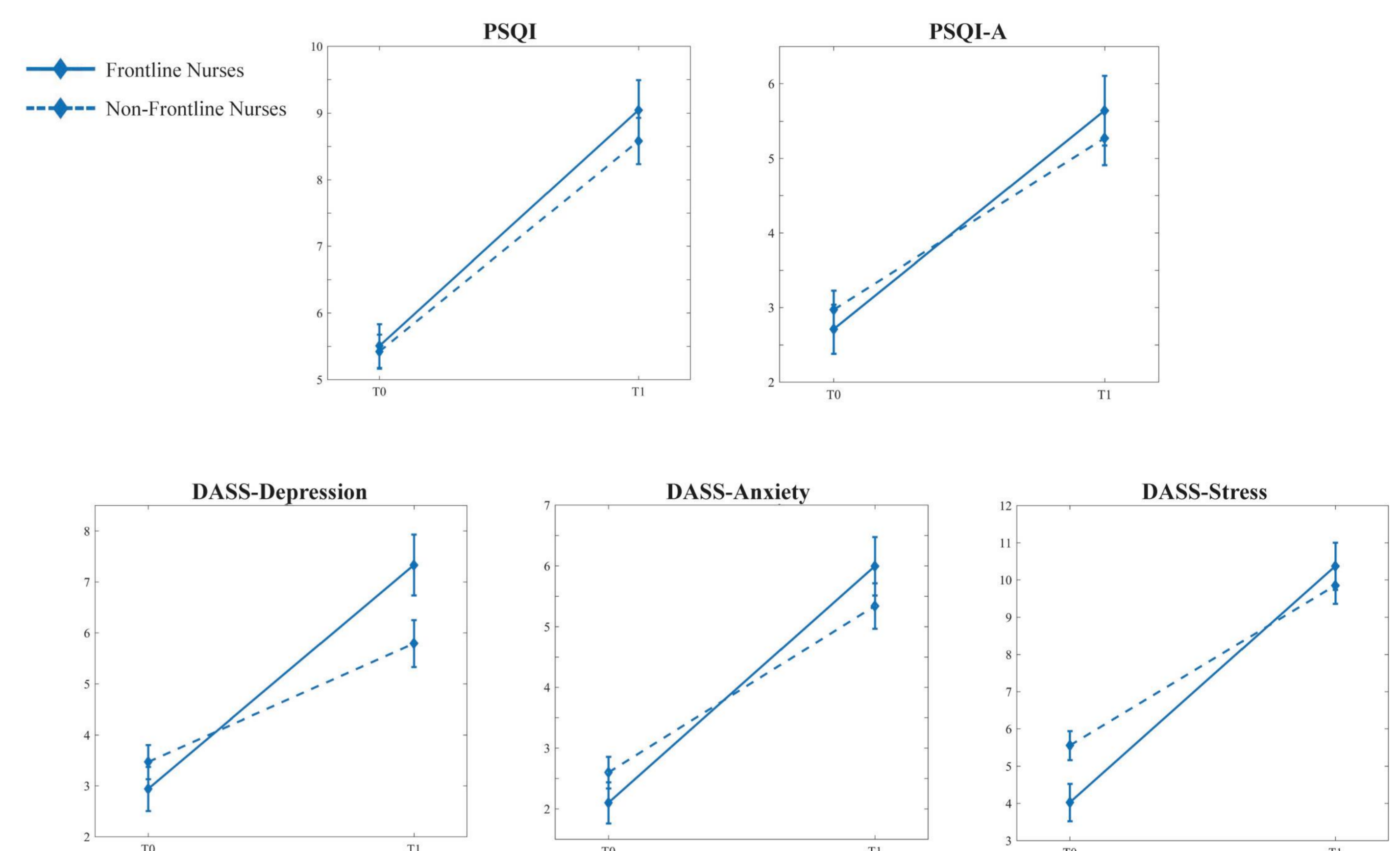
## RESULTS (1)

Although both groups were negatively affected by the pandemic, nurses as compared to medical doctors, showed a more significant decline over time in various psychological (DASS-Anxiety:  $p=0.005$ , DASS-Stress:  $p=0.032$ ) and sleep-related symptoms (PSQI:  $p=0.007$ , PSQI-A:  $p=0.003$ ).



## RESULTS (2)

Working on the frontline posed an additional risk factor for nurses in terms of increased depressive (DASS-Depression:  $p=0.001$ ), anxiety (DASS-Anxiety:  $p=0.039$ ), and stress (DASS-Stress:  $p=0.007$ ) symptoms over time.



## RESULTS (3)

Consistent with existing evidence, we also found that personal experiences with COVID-19 (Relatives/friends who have died from COVID-19; Satisfaction with governmental measures) were significant predictors of the current health status among healthcare workers.

## CONCLUSION

In conclusion, our study describes the lingering impact of the pandemic on HCWs, especially on nurses, who represent the largest group of healthcare professionals.

These findings emphasize the urgent need for preventive programs targeting healthcare professionals to enhance their coping skills and mitigate the long-term consequences of chronic stress, particularly for those at high risk. It is crucial to dedicate specific attention to programs aimed at improving sleep quality and reducing sleep-related traumatic symptoms.

## REFERENCES

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