COVID19와 수면의학

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COVID19 and Sleep Medicine

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- Bread and Butter
- ~~Butter and Bread~~
- COVID-19 and Sleep
- ~~Sleep and COVID-19~~

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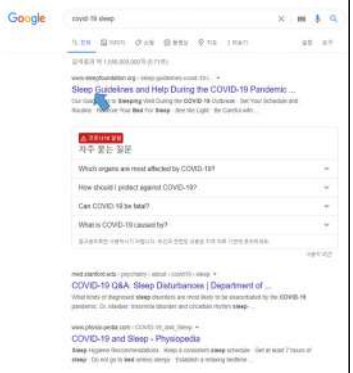
COVID-19
Sleep



SleepFoundation.org

SLEEP TOPICS SLEEP DISORDERS

Why is Sleep Important During a Pandemic?

Sleep is a critical biological process, and the truth is that it's always important. When confronting the COVID-19 pandemic, though, sleep becomes even more essential because of its wide-ranging benefits for physical and mental health.

- **Sleep empowers an effective immune system.** Solid nightly rest strengthens our body's defenses, and studies have even found that lack of sleep can make some vaccines less effective.
- **Sleep heightens brain function.** Our mind works better when we get good sleep, contributing to complex thinking, learning, memory, and decision-making. For adults and children adapting to work and school at home, good sleep can help them stay sharp.
- **Sleep enhances mood.** Lack of sleep can make a person irritable, drag down their energy level, and cause or worsen feelings of depression.
- **Sleep improves mental health.** Besides depression, studies have found that a lack of sleep is linked with mental health conditions like anxiety disorder, bipolar disorder, and Post-Traumatic Stress Disorder (PTSD).

Experts agree that getting consistent, high-quality sleep improves virtually all aspects of health, which is why it is worthy of our attention during the coronavirus pandemic.

Agenda

- The impact of COVID-19 on the lifestyle
- Sleep medicine and COVID-19
- Medical staff and COVID-19

The impact of COVID-19 on the lifestyle

WHO declaired, "It is a pandemic".

World Health Organization

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WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020

11 March 2020

Good afternoon.

In the past two weeks, the number of cases of COVID-19 outside China has increased 13-fold, and the number of affected countries has tripled.

Related

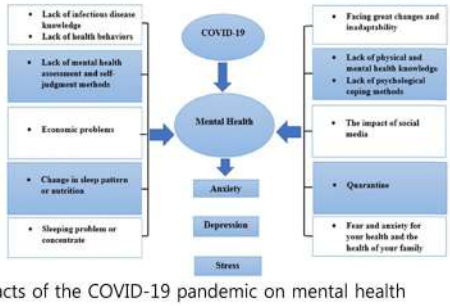
COVID-19 outbreak

A wide range of problems

- Individual level
  - Fear
  - Anxiety
  - Self-esteem
- Community and national level
  - Lack of knowledge
  - Financial or economic problems
  - Quarantine or isolation
  - Changes of social routine
  - Inadaptability

Mental Health and COVID-19

- Anxiety
  - an emotional state
  - worry, nervousness, apprehension, and physical arousal
- Fear
  - an unpleasant emotion or thought
  - frightened or worried by something dangerous, painful, or bad that is happening or might happen
- Self-esteem
  - an individual's sense of self-worth



Impacts of the COVID-19 pandemic on mental health

Sleep medicine and COVID-19

Era of Untact

- Goal of untact:
  - To avoid unnecessary exposure
  - To avoid potential infection

Sleep medicine and COVID-19

- Although sleep medicine is NOT an essential service, Lack of adequate sleep
  - Can reduce immunity
  - Can be stressful
  - Can cause organ dysfunctions

Consequence of Untact on Sleep Medicine

European Sleep Research Society

Sleep quality and COVID-19

Author (Reference)	Year	Region	Study population	Male%	Assessment	STROBE score	sampling method	Cut off	Outcomes (sample size)		
									Depression % (n)	Anxiety % (n)	Stress % (n)
A Moghanibashi-Mansourieh [21]	2020	Iran	10,754	34.2%	DASS-21	28	online survey	A > 7	N.A.	50.9% (5472)	N.A.
MZ Ahmed,et al. [22]	2020	China	1074	53.2%	BAI, BDI-II	23	online survey	≥8 ≥ 14	37.1% (399)	29% (312)	N.A.
C Wanget al. [23]	2020	China	1210	32.7%	DASS-21	22	online survey	A > 7 D > 9 S > 10	30.3% (367)	36.4% (440)	32.1% (389)
W Cao et al. [24]	2020	China	7143	30.35%	GAD-7	20	cluster sampling	≥5	N.A.	24.9% (1776)	N.A.
Y Huang, et al. [25]	2020	China	7236	45.4%	GAD-7 CES-D	18	web-based survey	≥9 ≥ 28	20.1% (1454)	35.1% (2540)	N.A.
M Ueda, et al. [26]	2020	Japan	1000	49.6%	GAD-7 PHQ-9	25	online survey	≥10 ≥ 10	43.1% (431)	33.2% (332)	N.A.

GAD-7, Generalized Anxiety Disorder 7-item; **PHQ-9**, Patient Health Questionnaire

D Liuet al. [27]	2020	China	14,592	31.6%	GAD-7 PHQ-9	26	online survey	N.A.	53.5% (7503)	44.6% (6196)	N.A.
SJ Zhou, et al. [23]	2020	China	8079	46.5%	GAD-7 PHQ-9	26	online survey	> 4 > 4	43.7% (3533)	37.4% (3020)	N.A.
A Sigdel, et al. [28]	2020	Nepal	349	54.2%	GAD-7 PHQ-9	29	online survey	≥10 ≥ 10	34% (119)	31% (109)	N.A.
SSH Kazmi, et al. [29]	2020	India	1000	38%	DASS-21	19	online survey	A > 7 D > 9 S > 10	38.9% (389)	43% (430)	35.7% (357)
N Othman, et al. [30]	2020	Iraq	548	49.6%	DASS-21	19	online survey	A > 7 D > 9 S > 10	44.9% (246)	47.1% (258)	17.5% (96)
Y Wang, et al. [31]	2020	China	600	44.5%	SAS SDS	19	online survey	≥50 ≥ 50	17.17% (103)	6.33% (38)	N.A.
M Qian, et al. [32]	2020	China	1011	50.44%	GAD-7	28	elephone survey via random digital dialing	≥10	N.A.	26.6% (269)	N.A.
M Sheulin, et al. [33]	2020	UK	2025	48%	GAD-7 PHQ-9	22	online survey (quota sampling)	≥10 ≥ 10	22.12% (448)	21.63% (438)	N.A.
P Odriozola-González, et al. [34]	2020	Spain	3550	35.1%	DASS-21	24	social media	A > 6 D > 9 S > 10	44.1% (1566)	32.4% (1150)	37% (1314)
SF Agbeotimi, et al. [35]	2020	Nigeria	502	53.6%	GAD-7 PHQ-9	29	Respondent-Driven Sampling (RDS) technique and Random Survey Sampling (RSS)	> 5 ≥ 10	23.5% (118)	49.6% (249)	N.A.
C Mazza, et al. [36]	2020	Italy	2766	28.3%	DASS-21	27	online survey	A > 6 D > 9 S > 10	32.8% (906)	18.7% (517)	27.2% (752)

SDB and COVID-19

- OSA
  - Middle aged or old patients
  - With coexistent cerebro- or cardio-vascular and/or metabolic diseases
  - HTN
  - Obesity

→ Are also the risk factor of COVID-19

SDB and COVID-19

American Academy of Sleep Medicine
British Sleep Society
Australasian Sleep Society
German Sleep and the Spanish Sleep Societies

- PAP devices for sleep disordered breathing
  - increase the risk of transmission through aerozolization to:
    - Medical personnel
    - The patients' family
  - PAP administration should be performed in an isolation room with negative pressure

- The in-hospital studies
  - should be carefully considered
  - after ruling out thoroughly the possibility of COVID-19

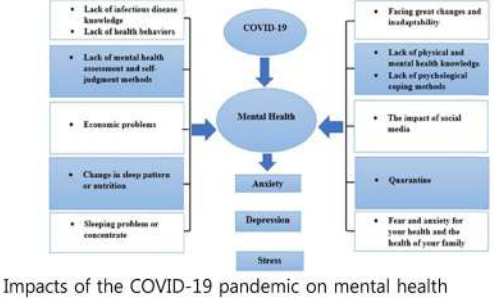
Sleep and COVID-19

- Sleep assessment **questionnaire-based** survey

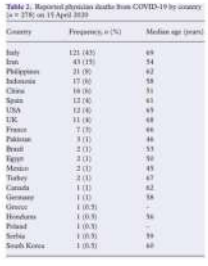
- The majority
  - sleep hygiene
  - CBT
  - **avoid in-lab sleep study**

- Telemedicine in sleep tendency: **?**
  - Home PSG vs. **in-hospital PAP trials**
  - Telemedicine for PAP titration: **NOT** a great interest
  - F/U of patients already on treatment: phone or video call

Medical Staff and COVID-19

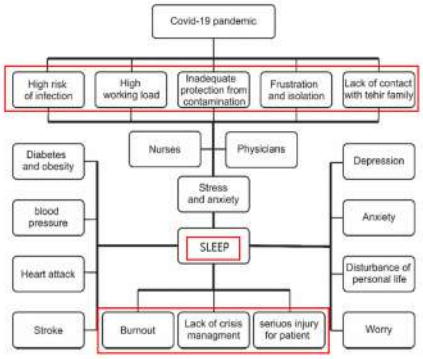


Impacts of the COVID-19 pandemic on mental health

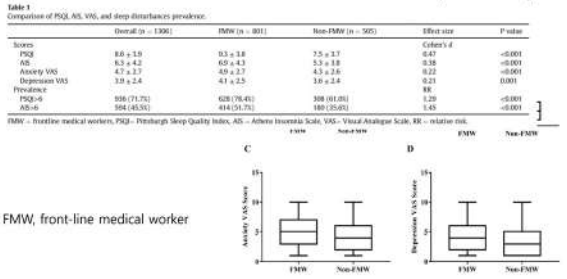


Medical staff and COVID-19

*"**Nor could the physicians help**, for the disease attacked them also, and the contact of the sick gave them infection, so that **the most faithful were the first victims**."*



Sleep Med. 2020 Aug;72:1-4



FMW, front-line medical worker

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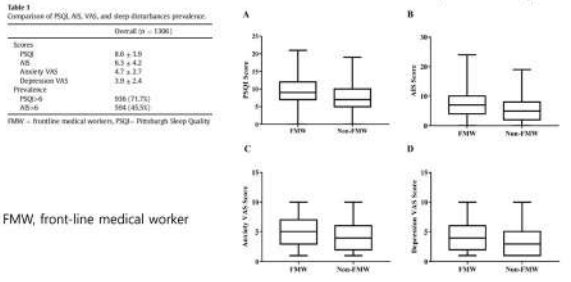
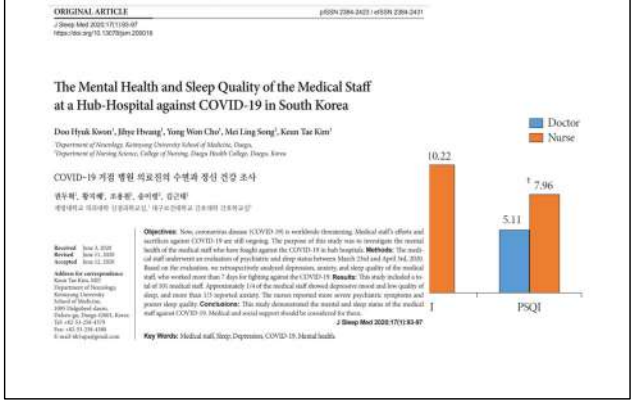
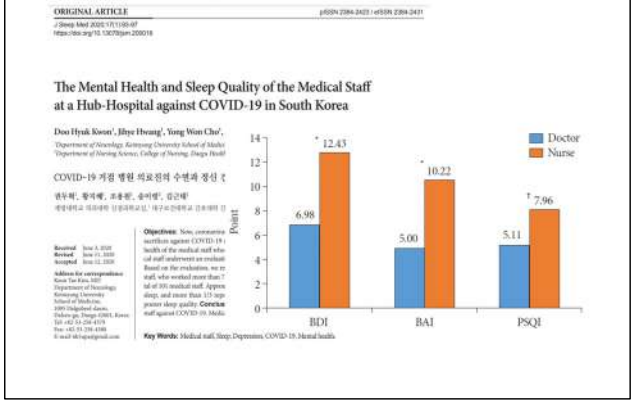


FMW, front-line medical worker





What we should do?

What we should do?

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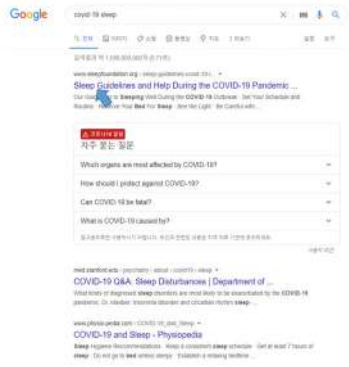

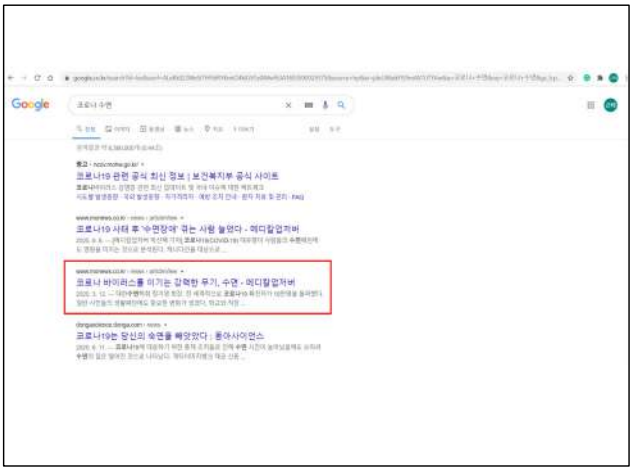

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