

Sleep, Anxiety & Stress

How does it affect the world? What
can we do to help?



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SLEEP - Overall Health

- ❖ Sleep disruptions and reductions throughout the world can be linked to today's 24-hour society, evening-based entertainment lifestyles, shift work, and prolonged work hours is a modern problem (Motomura et al., 2013).
- ❖ Poor sleep can become a life stressor, it has the links to aggravating inflammatory conditions, exacerbating hormonal imbalances, or provoking emotional dysregulation through ruminating worry, fear, anger, and avoidance. This causes an association of poor sleep with hypertension, compromised immunity, infections, weight gain, diabetes, depression, and anxiety. (Hinz et al., 2017).
- ❖ Sleep is needed for immune system function and repair, metabolic balancing, glymphatic cleaning, emotional reactivity, mood regulation, effective cognitive functions, memory retention, and releasing trauma (Goldstein & Walker, 2014).



SLEEP - USA

- ❖ Insufficient sleep is a burden on the public health system, and is considered to be an epidemic that is linked to 7 out of the 15 leading causes of death in the USA (Chattu et al., 2018).
- ❖ The American Academy of Sleep Medicine (AASM) and the Sleep Research Society (SRS) states the ideal sleep duration for adults aged 18 to 60 years old as more than 7 hours per night; whilst the National Sleep Foundation (NSF) recommends 7 to 9 hours of sleep for optimal sleep health in adults (Chattu et al., 2018).



SLEEP - New Zealand & Rest of the World

- ❖ In New Zealand, about 37% population get less than 7 hours of sleep per night (Lee and Sibley, 2019).
- ❖ In Canada, about $\frac{1}{3}$ of the adults within the population get less than 7 hours sleep per night (Dai et al., 2020).
- ❖ A Netherlands study showed 43.2% of participants suffered insufficient sleep (Chattu et al., 2018).
- ❖ A study indicated that 32.1% Austrians experience poor sleep (Hinz et al., 2017; Loeffler, 2015).
- ❖ A Hong Kong study had similar result, with 39.4% citizens having poor sleep (Wong et al., 2011).
- ❖ 35.9% Germans also noted poor sleep (Hinz et al., 2017; Loeffler, 2015).
- ❖ 43.9% women and 23.6% men had severe problems falling asleep in Bangladesh (Stranges et al., 2012).
- ❖ 37.6% women and 28.5% men had severe problems falling asleep in Vietnam (Stranges et al., 2012).

It is within reason to recognise that sleep issues are a global problem. Sleep support and prevention methods could help reduce this impact and improve the quality of life people have.



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ANXIETY - Overall Health

- ❖ One in thirteen adults worldwide suffer from an anxiety disorder. It is the most prevalent mental illness globally and has a prominent impact on loss of health (World Health Organization 2021; Yang et al 2021).
- ❖ 20% of children/adolescents worldwide have a mental health condition with anxiety affecting 25% of this cohort (WHO, 2021).
- ❖ In recent years there have been increased rates of Anxiety 6.33% to 50.9%, Psychological distress 34.4% to 38%, and Stress 8.1% to 81.9% (Xiong et al 2020; Gasteiger et al., 2021)
- ❖ An estimated, 75% of those suffering from anxiety remain uncared for, especially in developed countries, with approximately 1 million individuals taking their lives each year (WHO, 2021)



ANXIETY - USA



- ❖ There are an estimated 40 million adults in the US aged 18 or older that suffer from anxiety disorders yearly. This is equivalent to 18.1% of their population. (ADDA, n.d.)
- ❖ In America, 38% of adults that are diagnosed with anxiety will have displayed symptoms by age 15. (Mathew et al., 2019)
- ❖ Alongside this, 32% of american teenagers by 16 years old have exhibited anxiety at some point in their life. (Mathew et al., 2019)



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ANXIETY - New Zealand

New Zealand

- ❖ A 2020/2021 survey showed that 9.6% adults experiencing psychological distress in last four weeks;
- ❖ Whereas a 2019/2020 survey 7.4% adults experiencing psychological distress in last four weeks (Ministry of Health – 2020, 2021) ;
- ❖ New Zealand was one of six countries projected to have more than half the population (47 to 55%) with a lifetime risk of a mental health disorder (Kessler et al., 2007);
- ❖ Anxiety disorders account for 5.75% of NZ's total burden of disease (GBD, 2019).

Regardless of where someone is located, anxiety disorders are problematic for a fairly large amount of people within a population. It is time to start thinking about new approaches that can support those that need it, and prevent the increasing number of people enduring them.



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STRESS - Overall Health

- ❖ The need to adapt in response to daily stressful experiences, can overload an individual's biology, it has been recognised that prolonged stress impacts the biological system by pulling an individual's biology further from homeostasis (Slavich & Shields, 2018).



STRESS - USA

- ❖ In a 2017 national survey conducted by the American Psychological Association;
 - 75% of Americans had experienced at least one symptom of stress in the last month.
 - The largest stressors were the future of the nation (63%), money (62%) and work (61%).
- ❖ Another stress study by the American Psychological Association (2020) revealed;
 - 78% of adults felt the coronavirus pandemic had become a significant source of stress.
 - Gen Z adults reported the highest stress levels, 6.1 out of 10.
 - 87% of college students report their education being a significant source of stress.
- ❖ More statistics on stress in the USA shows (Patterson, 2022);
 - 77% of Americans experience stress that affects their physical health.
 - 73% of people experience stress that impacts their mental health.
 - 48% of people have difficulties sleeping due to stress.



STRESS - New Zealand & Rest of the World

- ❖ 91% of Australians feel stress in at least one important aspect of their lives, with an average of 3.2 days spent absent from work due to stress (Global Organization for Stress, n.d.).
- ❖ Prevalence of stress experienced in populations (Mahmud et al., 2021)
 - China (46.5%)
 - Egypt (76.6%)
 - India (52.8%)
 - Spain (55.2%)
- ❖ A Canadian study conducted reported that 44.5% first responders had one or more mental health disorders (Carleton et al., 2018).
- ❖ A UK study revealed that 74% of people within the population have felt stressed or overwhelmed (Mental Health Foundation, 2018).

Stress has a global influence on the wellbeing and quality of life people are experiencing daily. It is an issue that needs to be supported, and reframed as serious.



FLOWpresso Research

The effects of cyclical deep pressure applied by the FLOWpresso
on sleep, stress and anxiety



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The Results of three, forty minute FLOWpresso
sessions (one each week, for three weeks).



OUR RESEARCH on how FLOWpresso helps

Study A: 87 Candidates



92% of the participants reduced their sleep disturbance scores



61% of participants had reduced stress scores



53% of participants had reduced anxiety score



61% reported improved feelings towards their overall health and wellbeing



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OUR RESEARCH contd.

Study B: 86 Candidates



77% of participants reduced their sleep disturbance scores



63% of participants had reduced their stress score



55% of participants had reduced anxiety scores



50% had improved feelings towards their health and wellbeing.



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