The Mental Health Toll of COVID-19: Coping with Stress and Building Resilience

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Presentation to the University of Alberta Alumni Global Community

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.

There are now more than 118,000 cases in 114 countries, and 4,291 people have lost their lives.

Thousands more are fighting for their lives in hospitals.

In the days and weeks ahead, we expect to see the number of cases, the number of deaths, and the number of affected countries climb even higher.

WHO has been assessing this outbreak around the clock and we are deeply concerned both by the alarming levels of spread and severity, and by the alarming levels of inaction.

Travellers entering Canada

To limit the spread of COVID-19, travellers entering Canada must follow the rules set out by the emergency orders under the *Quarantine Act*.

Instructions for travellers entering Canada during COVID-19.

No one should travel when sick. Commercial airline restrictions may also prevent you from boarding your plane if you're sick. However, Canadians, persons with status under the *Indian Act* and permanent residents who have COVID-19 symptoms are allowed to return to Canada.

When entering Canada, you'll be:

- asked if you have a cough, fever or difficulty breathing
- required to acknowledge that you must:
  - quarantine for 14 days if you don't have symptoms **or**
  - isolate for 14 days if you have symptoms
- asked if you have a suitable place to isolate or quarantine, where:
  - you'll have access to basic necessities, including water, food, medication and heat during the winter months
  - you won't have contact with people who:
    - are 65 years or older
    - have underlying medical conditions
    - have compromised immune systems
  - you won't be in a group or community living arrangement such as:
    - industrial camps

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Estimated results in brief:
World total passenger traffic

The latest estimates indicate that the possible COVID-19 impact on world scheduled passenger traffic compared to Baseline (business as usual, originally-planned) would be:

Full year 2020 (Jan – Dec)

- Overall reduction of **51% of seats offered by airlines**
- Overall reduction of **2,867 to 2,897 million passengers**
- Approx. **USD 388 to 392 billion potential loss** of gross passenger operating revenues of airlines

Q1 2021 (Jan – Mar)

- Overall reduction ranging from **36% to 45% of seats offered by airlines**
- Overall reduction of **510 to 611 million passengers**
- Approx. **USD 76 to 90 billion potential loss** of gross passenger operating revenues of airlines

The actual impacts will depend on duration and magnitude of the outbreak and containment measures, the degree of consumer confidence for air travel, and economic conditions, etc.

More than 56K businesses closed in June amid coronavirus fallout: StatCan

By **Staff** · **The Canadian Press**
Posted September 28, 2020 7:38 am · Updated September 28, 2020 8:56 am

CORONAVIRUS | News

Rampant COVID-19 school closures, lack of online learning plague poorer countries

Mike Blanchfield

The Canadian Press Staff
Contact

Published Tuesday, September 15, 2020 5:35PM EDT

ECDC warns of overwhelmed hospitals, Italy-type COVID-19 pattern

Filed Under: **COVID-19**
Lisa Schnirring | News Editor | CIDRAP News | Mar 25, 2020

The European Centre for Disease Prevention and Control (ECDC) today warned in its latest COVID-19 risk assessment that cases are rapidly increasing in all of Europe, following rises that look similar to those of China's Hubei province and Italy and that the risk of overwhelmed health systems is high.

The report comes as cases in Western Europe soar and activity accelerates elsewhere, lifting the overall global total to 460,250 cases in 172 countries, according to the Johns Hopkins online dashboard. Three of the five worst-hit countries are in Europe: Italy, Spain, and Germany. Also, the global number of confirmed deaths passed 20,000 today, with 20,857 reported so far.

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Some hospitals in crisis as US nears high for COVID-19 cases

The United States is approaching a record for the number of new daily coronavirus cases in the latest ominous sign of the disease's grip on the nation

By **REBECCA BOONE and DAVID CRARY Associated Press**
23 October 2020, 18:41 • 6 min read

Alberta hospitals straining dangerously under weight of COVID-19, doctors warn

'Infection control can destroy a hospital,' Edmonton doctor warns

Wallis Snowdon · CBC News · Posted: Nov 06, 2020 1:58 PM MT | Last Updated: November 6

Alberta reported about 800 new infections on Thursday, breaking the daily record yet again. Nine Alberta hospitals are under outbreak status. (Vancouver Coastal Health)

World Health Organization

Search by Country, Territory, or Area

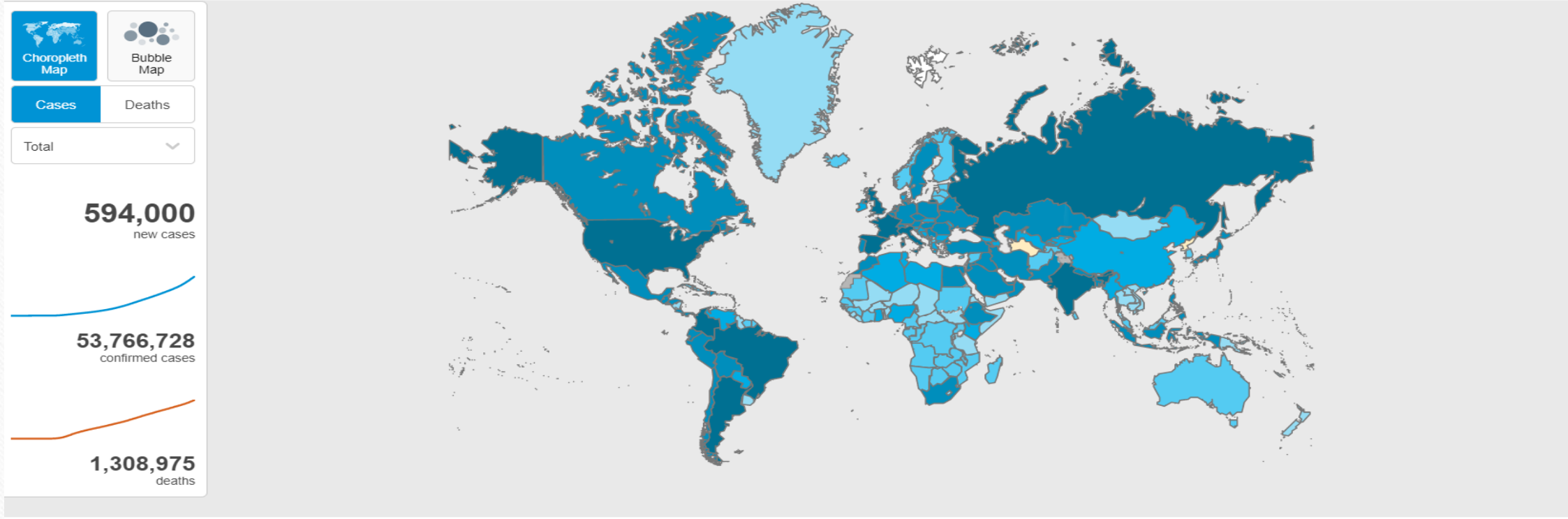
Covid-19 Response

Donate

WHO Coronavirus Disease (COVID-19) Dashboard

Data last updated: 2020/11/15, 4:35pm CET

Overview | Data Table | Explo



Globally, as of **4:35pm CET, 15 November 2020**, there have been **53,766,728 confirmed cases** of COVID-19, including **1,308,975 deaths**, reported to WHO.

Search by Country, Territory, or Area

Overview Data Table Exp

WHO Coronavirus Disease (COVID-19) Dashboard
Data last updated: 2020/11/15, 4:35pm CET

Back to t

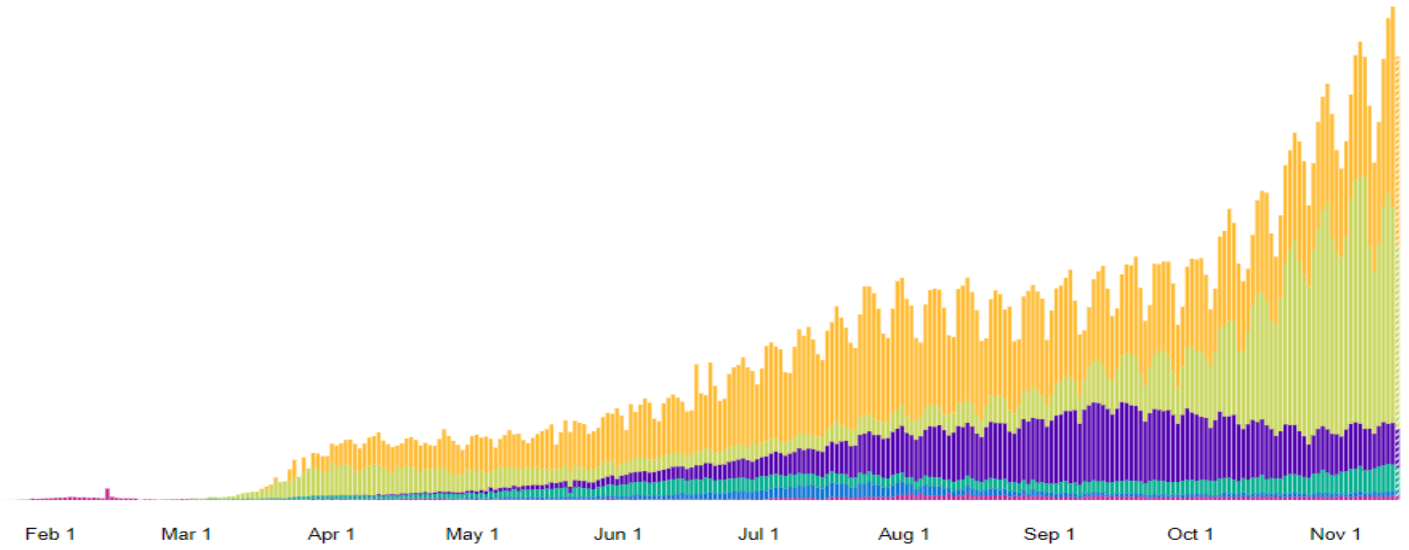
day or week.

Situation by WHO Region

Americas	22,960,102	confirmed
Europe	15,047,248	confirmed
South-East Asia	10,015,731	confirmed
Eastern Mediterranean	3,545,801	confirmed
Africa	1,398,935	confirmed
Western Pacific	798,170	confirmed

Source: World Health Organization
Data may be incomplete for the current day or week.

Daily Weekly Cases Deaths Count



Review > Diabetes Metab Syndr. Sep-Oct 2020;14(5):779-788. doi: 10.1016/j.dsx.2020.05.035. Epub 2020 May 27.

Psychosocial impact of COVID-19

Souvik Dubey [1], Payel Biswas [2], Ritwik Ghosh [3], Subhankar Chatterjee [4], Mahua Jana Dubey [5], Subham Chatterjee [6], Durjoy Lahiri [7], Carl J Lavie [8]

Affiliations + expand

PMID: 32526627 PMCID: PMC7255207 DOI: 10.1016/j.dsx.2020.05.035

Free PMC article

Abstract

Methods: Pubmed and GoogleScholar are searched with the following key terms- "COVID-19", "SARS-CoV2", "Pandemic", "Psychology", "Psychosocial", "Psychitry", "marginalized", "telemedicine", "mental health", "quarantine", "infodemic", "social media" and" "internet". Few news paper reports related to COVID-19 and psychosocial impacts have also been added as per context.

Results: Disease itself multiplied by forced quarantine to combat COVID-19 applied by nationwide lockdowns can produce acute panic, anxiety, obsessive behaviors, hoarding, paranoia, and depression, and post-traumatic stress disorder (PTSD) in the long run. These have been fueled by an "infodemic" spread via different platforms of social media. Outbursts of racism, stigmatization, and xenophobia against particular communities are also being widely reported. Nevertheless, frontline healthcare workers are at higher-risk of contracting the disease as well as experiencing adverse psychological outcomes in form of burnout, anxiety, fear of transmitting infection, feeling of incompatibility, depression, increased substance-dependence, and PTSD. Community-based mitigation programs to combat COVID-19 will disrupt children's usual lifestyle and may cause florid mental distress. The psychosocial aspects of older people, their caregivers, psychiatric patients and marginalized communities are affected by this pandemic in different ways and need special attention.

> JMIR Ment Health. 2020 Sep 25;7(9):e22408. doi: 10.2196/22408.

Prevalence of Perceived Stress, Anxiety, Depression, and Obsessive-Compulsive Symptoms in Health Care Workers and Other Workers in Alberta During the COVID-19 Pandemic: Cross-Sectional Survey

Kelly Mrklas [1], Reham Shalaby [2], Marianne Hrabok [3], April Gusnowski [4], Wesley Vuong [4], Shireen Surood [4], Liana Urichuk [4], Daniel Li [4], Xin-Min Li [2], Andrew James Greenshaw [2], Vincent Israel Opoku Agyapong [2]

Results: Overall, 8267 surveys were submitted by 44,992 Text4Hope subscribers (19.39%). Of these, 5990 respondents were employed (72.5%), 958 (11.6%) were unemployed, 454 (5.5%) were students, 559 (6.8%) were retired, 234 (2.8%) selected "other," and 72 (0.9%) did not indicate their employment status. Most employed survey respondents were female (n=4621, 86.2%). In the general sample, the 6-week prevalence rates for moderate or high stress, anxiety, and depression symptoms were 85.6%, 47.0%, and 44.0%, respectively. Self-reported symptoms of moderate or high stress, anxiety, and depression were all statistically significantly higher in other workers than in health care workers (P<.001). Other workers reported higher obsessive-compulsive symptoms (worry about contamination and compulsive handwashing behavior) after the onset of the pandemic (P<.001), while health care worker symptoms were statistically significantly higher before and during the COVID-19 pandemic (P<.001). This finding should be interpreted with caution, as it is unclear the extent to which the adaptive behavior of health care workers or the other workers might be misclassified by validated tools during a pandemic.

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> Int J Environ Res Public Health. 2020 Sep 24;17(19):6986. doi: 10.3390/ijerph17196986.

COVID-19 Pandemic and Mental Health: Prevalence and Correlates of New-Onset Obsessive-Compulsive Symptoms in a Canadian Province

Adam Abba-Aji [1,2], Daniel Li [1,2], Marianne Hrabok [1,3], Reham Shalaby [1], April Gusnowski [2], Wesley Vuong [2], Shireen Surood [2], Nnamdi Nkire [1,2], Xin-Min Li [1], Andrew J Greenshaw [1,4], Vincent I O Agyapong [1,2]

Background: This cross-sectional online survey investigates the prevalence of obsessive-compulsive disorder (OCD) symptoms at an early stage of the COVID-19 pandemic in Canada. *Methods*: OCD symptoms, moderate/high stress, likely generalized anxiety disorder (GAD) and likely major depressive disorder (MDD) were assessed with the Brief Obsessive-Compulsive Scale (BOCS), Perceived Stress Scale (PSS), Generalized Anxiety Disorder 7-item (GAD-7) scale, and Patient Health Questionnaire-9 (PHQ-9) scale, respectively. *Results*: Out of 32,805 individuals subscribed to Text4Hope, 6041 completed an online survey; the response rate was 18.4%. Overall, 60.3% of respondents reported onset of OCD symptoms and 53.8% had compulsions to wash hands during the COVID-19 pandemic. Respondents who showed OCD symptoms only since the start of COVID-19 were significantly more likely to have moderate/high stress ($z = 6.4$, $p < 0.001$), likely GAD ($z = 6.0$, $p < 0.001$), and likely MDD ($z = 2.7$, $p < 0.01$). Similarly, respondents who engaged in compulsive hand washing were significantly more likely to have moderate/high stress ($z = 4.6$, $p < 0.001$) and likely GAD ($z = 4.6$ $p < 0.001$), but not likely MDD ($z = 1.4$, $p = 0.16$). *Conclusion*: The prevalence of OCD symptoms increased during the COVID-19 pandemic, at a rate significantly higher than pre-pandemic rates reported for the sample population. Presenting with OCD symptoms increased the likelihood of presenting with elevated stress, likely GAD, and likely MDD.

Review > QJM. 2020 Oct 1;113(10):707-712. doi: 10.1093/qjmed/hcaa202.

The impact of the COVID-19 pandemic on suicide rates

Leo Sher [1] [2] [3]

Affiliations + expand

PMID: 32539153 PMCID: PMC7313777 DOI: 10.1093/qjmed/hcaa202
Free PMC article

Abstract

Multiple lines of evidence indicate that the coronavirus disease 2019 (COVID-19) pandemic has profound psychological and social effects. The psychological sequelae of the pandemic will probably persist for months and years to come. Studies indicate that the COVID-19 pandemic is associated with distress, anxiety, fear of contagion, depression and insomnia in the general population and among healthcare professionals. Social isolation, anxiety, fear of contagion, uncertainty, chronic stress and economic difficulties may lead to the development or exacerbation of depressive, anxiety, substance use and other psychiatric disorders in vulnerable populations including individuals with pre-existing psychiatric disorders and people who reside in high COVID-19 prevalence areas. Stress-related psychiatric conditions including mood and substance use disorders are associated with suicidal behavior. COVID-19 survivors may also be at elevated suicide risk. The COVID-19 crisis may increase suicide rates during and after the pandemic. Mental health consequences of the COVID-19 crisis including suicidal behavior are likely to be present for a long time and peak later than the actual pandemic. To reduce suicides during the COVID-19 crisis, it is imperative to decrease stress, anxiety, fears and loneliness in the general population. There should be traditional and social media campaigns to promote mental health and reduce distress. Active outreach is necessary, especially for people with a history of psychiatric disorders, COVID-19 survivors and older adults. Research studies

CNN

Live TV

In Japan, more people died from suicide last month than from Covid in all of 2020. And women have been impacted most

By Selina Wang, Rebecca Wright and Yoko Wakatsuki, CNN

Updated 6:46 AM EST, Sun November 29, 2020

Experts have warned that the pandemic could lead to a mental health crisis. Mass unemployment, social isolation, and anxiety are taking their toll on people globally.

In Japan, government statistics show suicide claimed more lives in October than Covid-19 has over the entire year to date. The monthly number of Japanese suicides rose to 2,153 in October, according to Japan's National Police Agency. As of Friday, Japan's total Covid-19 toll was 2,087, the health ministry said.

View this interactive content on CNN.com

Japan is one of the few major economies to disclose timely suicide data -- the most recent national data for the US, for example, is from 2018. The Japanese data could give other countries insights into the impact of pandemic measures on mental health, and which groups are the most vulnerable.

Psychiatry Research 290 (2020) 113104

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journal homepage: www.elsevier.com/locate/psychres

Projected increases in suicide in Canada as a consequence of COVID-19

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ABSTRACT

Macroeconomic indicators, notably unemployment, are significant moderators of suicide. We projected the number of excess suicides in Canada as a consequence of the impact of COVID-19 on unemployment. Annual suicide mortality (2000-2018) and unemployment (2000-2019) data were derived from Statistics Canada. Time-trend regression models were used to evaluate and predict the number of excess suicides in 2020 and 2021 for two possible projection scenarios following the COVID-19 pandemic: 1) an increase in unemployment of 1.6% in 2020, 1.2% in 2021, or 2) an increase in unemployment of 10.7% in 2020, 8.9% in 2021. A percentage point increase in unemployment was associated with a 1.0% increase in suicide between 2000 and 2018. In the first scenario, the rise in unemployment rates resulted in a projected total of 418 excess suicides in 2020-2021 (suicide rate per 100,000: 11.6 in 2020). In the second scenario, the projected suicide rates per 100,000 increased to 14.0 in 2020 and 13.6 in 2021, resulting in 2114 excess suicides in 2020-2021. These results indicate that suicide prevention in the context of COVID-19-related unemployment is a critical priority. Furthermore, timely access to mental healthcare, financial provisions and social/labour support programs, as well as optimal treatment for mental disorders is urgently needed.

> Psychiatry Res. 2020 Aug;290:113117. doi: 10.1016/j.psychres.2020.113117. Epub 2020 May 23.

Loneliness: A signature mental health concern in the era of COVID-19

William D S Killgore [1], Sara A Cloonan [2], Emily C Taylor [2], Natalie S Dailey [2]

Affiliations + expand

PMID: 32480121 PMCID: PMC7255345 DOI: 10.1016/j.psychres.2020.113117

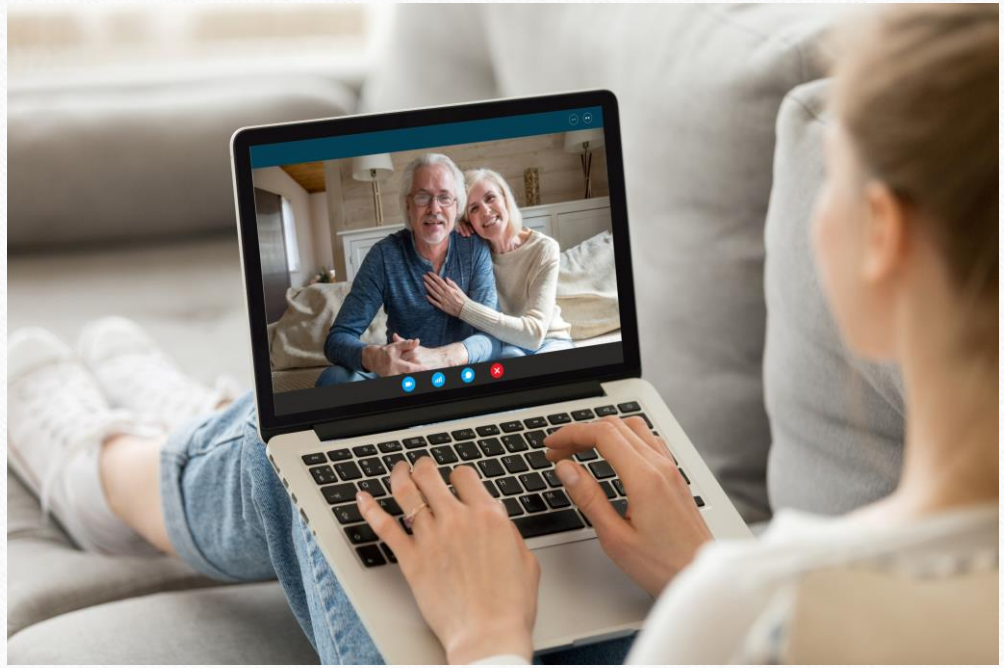
Free PMC article

Abstract

In response to the COVID-19 pandemic, most communities in the United States imposed stay-at-home orders to mitigate the spread of the novel coronavirus, potentially leading to chronic social isolation. During the third week of shelter-in-place guidelines, 1,013 U.S. adults completed the UCLA Loneliness Scale-3 and Public Health Questionnaire (PHQ-9). Loneliness was elevated, with 43% of respondents scoring above published cutoffs, and was strongly associated with greater depression and suicidal ideation. Loneliness is a critical public health concern that must be considered during the social isolation efforts to combat the pandemic.

Families should find things to do together

Use technology to stay connected with family and friends whilst physically distancing



> Soc Psychiatry Psychiatr Epidemiol. 2012 May;47(5):697-709. doi: 10.1007/s00127-011-0391-7. Epub 2011 May 10.

Family social support, community "social capital" and adolescents' mental health and educational outcomes: a longitudinal study in England

Catherine Rothon [1], Laura Goodwin, Stephen Stansfeld

Abstract

Purpose: To examine the associations between family social support, community "social capital" and mental health and educational outcomes.

Methods: The data come from the Longitudinal Study of Young People in England, a multi-stage stratified nationally representative random sample. Family social support (parental relationships, evening meal with family, parental surveillance) and community social capital (parental involvement at school, sociability, involvement in activities outside the home) were measured at baseline (age 13-14), using a variety of instruments. Mental health was measured at age 14-15 (GHQ-12). Educational achievement was measured at age 15-16 by achievement at the General Certificate of Secondary Education.

Results: After adjustments, good paternal (OR = 0.70, 95% CI 0.56-0.86) and maternal (OR = 0.65, 95% CI 0.53-0.81) relationships, high parental surveillance (OR = 0.81, 95% CI 0.69-0.94) and frequency of evening meal with family (6 or 7 times a week: OR = 0.77, 95% CI 0.61-0.96) were associated with lower odds of poor mental health. A good paternal relationship (OR = 1.27, 95% CI 1.06-1.51), high parental surveillance (OR = 1.37, 95% CI 1.20-1.58), high frequency of evening meal with family (OR = 1.64, 95% CI 1.33-2.03) high involvement in extra-curricular activities (OR = 2.57, 95% CI 2.11-3.13) and parental involvement at school (OR = 1.60, 95% CI 1.37-1.87) were associated with higher odds of reaching the educational benchmark. Participating in non-directed activities was associated with lower odds of reaching the benchmark (OR = 0.79, 95% CI 0.70-0.89).

Conclusions: Building social capital in deprived communities may be one way in which both mental health and educational outcomes could be improved. In particular, there is a need to focus on the family as a provider of support.

> Int J Behav Med. 2016 Aug;23(4):447-57. doi: 10.1007/s12529-015-9532-9.

Association Between Parental Social Interaction and Behavior Problems in Offspring: a Population-Based Study in Japan

Manami Ochi [1] [2], Takeo Fujiwara [3] [4]

Purpose: Research in parental social support has chiefly examined received social support. Studies have suggested that provided social support may also be protective for child mental health problems. We aim to investigate the association between parental social interaction (both received and provided social support) and offspring behavior problems.

Methods: We analyzed the data of 982 households, including 1538 children aged 4 to 16 years, from the Japanese Study of Stratification, Health, Income, and Neighborhood (J-SHINE) survey conducted over 2010-2011. We used a 5-point Likert scale to assess social interaction including parental emotional and instrumental support received from and provided to the spouse, other co-residing family members, non-co-residing family members or relatives, neighbors, and friends. Behavior problems in offspring were assessed using parental responses to the Strengths and Difficulties Questionnaire. Associations between parental social interaction and behavior problems were analyzed using ordered logistic regression.

Results: We found that higher maternal social interaction is significantly associated with lower odds of both difficult and prosocial behavior problems, while the same associations were not found for paternal social interaction. Further, maternal provided social support showed an independent negative association with prosocial behavior problems in offspring, even when adjusted for received maternal social support and paternal social interaction.

Conclusions: This study showed that maternal social interaction, but not paternal social interaction, might have a protective effect on offspring behavior problems. Further study is required to investigate the effect of the intervention to increase social participation among mothers whose children have behavior problems.

Stay up to date with latest information but avoid addiction to COVID-19 related news

Review > J Pak Med Assoc. 2020 May;70(Suppl 3)(5):S162-S165. doi: 10.5455/JPMA.38.

Information Overload and Infodemic in the COVID-19 Pandemic

Farooq Azam Rathore [1], Fareeha Farooq [2]

Affiliations + expand

PMID: 32515403 DOI: 10.5455/JPMA.38

Abstract

The world has experienced pandemics worse than the coronavirus disease (COVID-19) which resulted in great loss of life and economy. However, the global effect of this pandemic has been devastating. Billions of people are in lockdown and isolation on six continents around the world. Most have easy access to information due to internet connectivity and electronic media, which has helped share information about the pandemic. However, information overload during the current COVID-19 pandemic has posed a set of challenges not encountered before. There is an "infodemic" in which false news, conspiracy theories, magical cures and racist news are being shared at an alarming rate, with the potential to increase anxiety and stress and even lead to loss of life. This review highlights some of these challenges and suggests general measures to avoid information overload and infodemic in the connected world of 21st century.

Keywords: Social Media, Pakistan, Coronavirus, Facebook, WHO, Global health, Mental health, Lockdown..

J Med Internet Res. 2020 Jun 26;22(6):e19659. doi: 10.2196/19659.

Framework for Managing the COVID-19 Infodemic: Methods and Results of an Online, Crowdsourced WHO Technical Consultation

Viroj Tangcharoensathien [#1], Neville Calleja [#2], Tim Nguyen [#3], Tina Purnat [#4], Marcelo D'Agostino [#5], Sebastian Garcia-Saiso [#6], Mark Landry [#7], Arash Rashidian [#8], Clayton Hamilton [#9], Abdelhalim AbdAllah [#10], Ioana Ghiga [#11], Alexandra Hill [#11], Daniel Hougendobler [#11], Judith van Andel [#4], Mark Nunn [#], Ian Brooks [#12], Pier Luigi Sacco [#13 14 15 16], Manlio De Domenico [#17], Philip Mai [#18], Anatoliy Gruzd [#18], Alexandre Alaphilippe [#19], Sylvie Briand [#11]

Affiliations + expand

PMID: 32558655 PMCID: PMC7332158 DOI: 10.2196/19659

Free PMC article

Abstract

Results: The analysis team distilled the suggestions into a set of 50 proposed actions for a framework for managing infodemics in health emergencies. The consultation revealed six policy implications to consider. First, interventions and messages must be based on science and evidence, and must reach citizens and enable them to make informed decisions on how to protect themselves and their communities in a health emergency. Second, knowledge should be translated into actionable behavior-change messages, presented in ways that are understood by and accessible to all individuals in all parts of all societies. Third, governments should reach out to key communities to ensure their concerns and information needs are understood, tailoring advice and messages to address the audiences they represent. Fourth, to strengthen the analysis and amplification of information impact, strategic partnerships should be formed across all sectors, including but not limited to the social media and technology sectors, academia, and civil society. Fifth, health authorities should ensure that these actions are informed by reliable information that helps them understand the circulating narratives and changes in the flow of information, questions, and misinformation in communities. Sixth, following experiences to date in responding to the COVID-19 infodemic and the lessons from other disease outbreaks, infodemic management approaches should be further developed to support preparedness and response, and to inform risk mitigation, and be enhanced through data science and sociobehavioral and other research.

Eat Healthy/Avoid Junk Food

> Public Health Nutr. 2014 Nov;17(11):2554-62. doi: 10.1017/S1368980013002747. Epub 2013 Oct 10.

Eating patterns and mental health problems in early adolescence--a cross-sectional study of 12-13-year-old Norwegian schoolchildren

Inger M Oellingrath [1], Martin V Svendsen [2], Ingebjørg Hestetun [3]

Objective: To investigate the association between eating patterns and mental health problems in young Norwegian adolescents (12-13 years of age).

Design: Cross-sectional study. Dietary information was reported by parents using a retrospective FFQ. Eating patterns were identified using principal component analysis. The Strengths and Difficulties Questionnaire was used to measure mental health problems. The association between eating patterns and mental health problems was examined using multiple logistic regression analysis.

Setting: Primary schools, Telemark County, Norway.

Subjects: Children (n 1095) aged 12-13 years and their parents.

Results: Children with high scores on a 'varied Norwegian' eating pattern were less likely to have indications of any psychiatric disorders (adjusted OR = 0·5; 95 % CI 0·3, 1·0) and hyperactivity-inattention disorders (adjusted OR = 0·4; 95 % CI 0·2, 0·8) than children with low scores on this pattern. Children with high scores on a 'junk/convenient' eating pattern were more likely to have indications of hyperactivity-inattention disorders (adjusted OR = 3·4; 95 % CI 1·3, 8·6) than children with low scores on this pattern. Children with high scores on a 'snacking' eating pattern were more likely to have indications of conduct/oppositional disorders (adjusted OR = 3·8; 95 % CI 1·2, 11·5) than those with low scores on this eating pattern.

Conclusions: We identified a significant association between eating patterns and mental health problems in young adolescents, independently of physical activity, sedentary activity and background variables. A diverse diet rich in unrefined plant foods, fish and regular meals was associated with better mental health, while energy-dense, nutrient-poor diets and irregular meals were associated with poorer mental health.

Review > Brain Behav Immun. 2020 Jul;87:53-54. doi: 10.1016/j.bbi.2020.04.040.
Epub 2020 Apr 18.

The impact of nutrition on COVID-19 susceptibility and long-term consequences

Michael J Butler [1], Ruth M Barrientos [2]

Affiliations + expand

PMID: 32311498 PMCID: PMC7165103 DOI: 10.1016/j.bbi.2020.04.040
Free PMC article

Abstract

While all groups are affected by the COVID-19 pandemic, the elderly, underrepresented minorities, and those with underlying medical conditions are at the greatest risk. The high rate of consumption of diets high in saturated fats, sugars, and refined carbohydrates (collectively called Western diet, WD) worldwide, contribute to the prevalence of obesity and type 2 diabetes, and could place these populations at an increased risk for severe COVID-19 pathology and mortality. WD consumption activates the innate immune system and impairs adaptive immunity, leading to chronic inflammation and impaired host defense against viruses. Furthermore, peripheral inflammation caused by COVID-19 may have long-term consequences in those that recover, leading to chronic medical conditions such as dementia and neurodegenerative disease, likely through neuroinflammatory mechanisms that can be compounded by an unhealthy diet. Thus, now more than ever, wider access to healthy foods should be a top priority and individuals should be mindful of healthy eating habits to reduce susceptibility to and long-term complications from COVID-19.

Exercise outdoors and indoors

Review > Sports Med. 2000 Mar;29(3):167-80. doi: 10.2165/00007256-200029030-00003.

Physical activity and mental health: current concepts

S A Paluska [1], T L Schwenk

Affiliations + expand

PMID: 10739267 DOI: 10.2165/00007256-200029030-00003

Abstract

Physical activity may play an important role in the management of mild-to-moderate mental health diseases, especially depression and anxiety. Although people with depression tend to be less physically active than non-depressed individuals, increased aerobic exercise or strength training has been shown to reduce depressive symptoms significantly. However, habitual physical activity has not been shown to prevent the onset of depression. Anxiety symptoms and panic disorder also improve with regular exercise, and beneficial effects appear to equal meditation or relaxation. In general, acute anxiety responds better to exercise than chronic anxiety. Studies of older adults and adolescents with depression or anxiety have been limited, but physical activity appears beneficial to these populations as well. Excessive physical activity may lead to overtraining and generate psychological symptoms that mimic depression. Several differing psychological and physiological mechanisms have been proposed to explain the effect of physical activity on mental health disorders. Well controlled studies are needed to clarify the mental health benefits of exercise among various populations and to address directly processes underlying the benefits of exercise on mental health.

Meta-Analysis > Health Psychol Rev. 2015;9(3):366-78. doi: 10.1080/17437199.2015.1022901. Epub 2015 Jul 3.

A meta-meta-analysis of the effect of physical activity on depression and anxiety in non-clinical adult populations

Amanda L Rebar [1], Robert Stanton [2], David Geard [2], Camille Short [1 3], Mitch J Duncan [1 4], Corneel Vandelanotte [1]

Affiliations + expand

PMID: 25739893 DOI: 10.1080/17437199.2015.1022901

Abstract

Amidst strong efforts to promote the therapeutic benefits of physical activity for reducing depression and anxiety in clinical populations, little focus has been directed towards the mental health benefits of activity for non-clinical populations. The objective of this meta-meta-analysis was to systematically aggregate and quantify high-quality meta-analytic findings of the effects of physical activity on depression and anxiety for non-clinical populations. A systematic search identified eight meta-analytic outcomes of randomised trials that investigated the effects of physical activity on depression or anxiety. The subsequent meta-meta-analyses were based on a total of 92 studies with 4310 participants for the effect of physical activity on depression and 306 study effects with 10,755 participants for the effect of physical activity on anxiety. Physical activity reduced depression by a medium effect [standardised mean difference (SMD) = -0.50; 95% CI: -0.93 to -0.06] and anxiety by a small effect (SMD = -0.38; 95% CI: -0.66 to -0.11). Neither effect showed significant heterogeneity across meta-analyses. These findings represent a comprehensive body of high-quality evidence that physical activity reduces depression and anxiety in non-clinical populations.

Psychiatr Danub. 2019 Sep;31(Suppl 3):217-220.

Lifestyle Factors and Mental Health

Rashid Zaman [1], Ahmed Hankir, Monem Jemni

Affiliations + expand

PMID: 31488729

Free article

Abstract

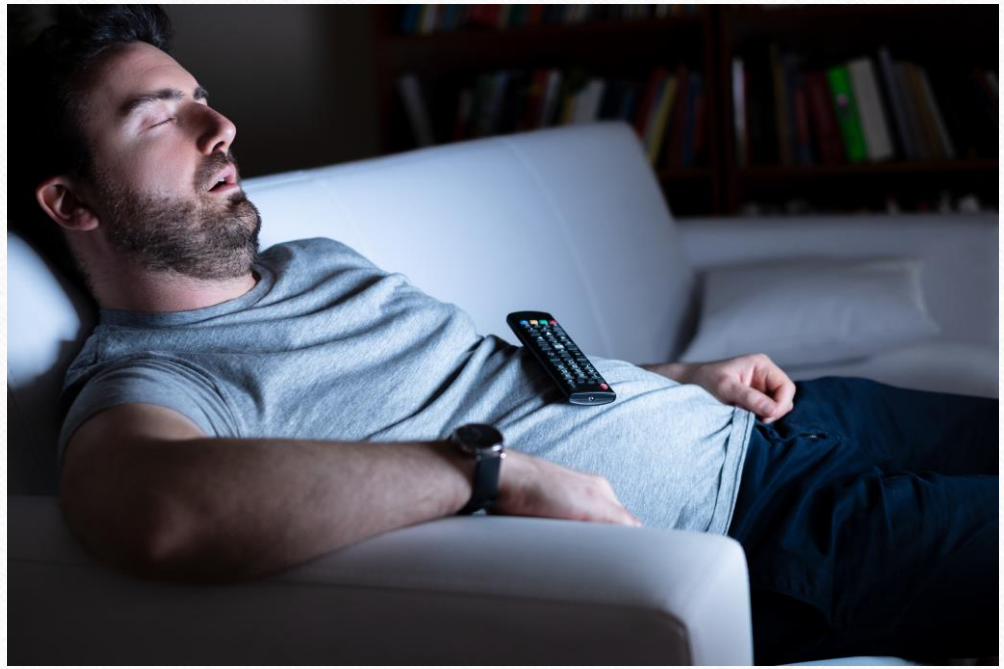
A number of lifestyle factors have been recognised to play an important role in positively modifying medical and psychiatric diseases and their associated morbidity and mortality. These include, eating healthy food, greater physical activity, cessation of smoking, avoidance of alcohol and illicit substances. Additional lifestyle factors for healthy living include, safe and peaceful environment, optimal sleep, de-stressing and enjoyable activities, social connections/support and healthy mental activities. Physicians from the ancient times, through the middle ages to the early 20th century have recommended adoption of healthy lifestyle factors such as diet and exercise to manage medical and psychiatric disorders without really understanding their scientific basis. In this short paper, we discuss the important role lifestyle factors play in morbidity and mortality related to many important and common medical and psychiatric diseases. We explore how and if positively modifying lifestyle factors can help to improve and or prevent medical and psychiatric disorders with particular emphasis on food, diet and exercise.

CONCLUSION

Clearly large body of research evidence points to importance of lifestyle factors in medical and psychiatric diseases. Research also suggest that positive modification of lifestyle factors is essential for both improvement and maintaining of physical and mental health.

Each individual is unique and hence requires their own unique set of programmes of lifestyle modification. Indeed, it is helpful to recognise that each lifestyle factor is linked to and influences other lifestyle factors through various underlying mechanisms such as improvement in inflammatory processes which can result from inactivity, over consumption of unhealthy/inflammatory foods, obesity and smoking. Whilst it may be easier to take a step by step approach by modifying of one lifestyle factor at one time, efforts should be made to modify all lifestyle factors in conjunctions, since they tend to work synergistically and are likely to have greater effect on positively modify morbidity and mortality related to physical and mental health.

Get enough sleep and maintain sleep hygiene



> J Pediatr. 2017 Mar;182:137-143. doi: 10.1016/j.jpeds.2016.11.007. Epub 2016 Dec 7.

Sleep Patterns and Mental Health Correlates in US Adolescents

Jihui Zhang [1], Diana Paksarian [2], Femke Lamers [3], Ian B Hickie [4], Jianping He [2], Kathleen Ries Merikangas [5]

Affiliations + expand

PMID: 27939122 DOI: 10.1016/j.jpeds.2016.11.007

Abstract

Objective: To investigate systematically the associations of sleep patterns with a range of mental disorders and other outcomes among a nationally representative sample of US adolescents.

Study design: Using the National Comorbidity Survey Adolescent Supplement, a nationally representative cross-sectional survey of 10 123 US adolescents 13-18 years of age, we assessed associations between adolescent-reported sleep patterns (tertiles of weeknight bedtime, weeknight sleep duration, weekend bedtime delay, and weekend oversleep) and past-year mental disorders based on the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, smoking, injury, suicidality, and perceived mental and physical health, assessed via direct diagnostic interview.

Results: The average weeknight bedtime was at 22:37 and sleep duration was 7.72 hours. Average weekend bedtime delay was 1.81 hours and average weekend oversleep was 1.17 hours. Later weeknight bedtime, shorter weeknight sleep duration, greater weekend bedtime delay, and both short and long periods of weekend oversleep were associated with increased odds of mood, anxiety, substance use, and behavioral disorders, as well as suicidality, tobacco smoking, and poor perceived mental and physical health. ORs ranged from 1.27 to 2.15. The only outcomes not associated with any sleep patterns were past-year injury and eating disorder.

Review > J Sleep Res. 2020 Aug;29(4):e13052. doi: 10.1111/jsr.13052. Epub 2020 May 4.

Dealing with sleep problems during home confinement due to the COVID-19 outbreak: Practical recommendations from a task force of the European CBT-I Academy

Ellemarije Altena [1], Chiara Baglioni [2 3], Colin A Espie [4], Jason Ellis [5], Dimitri Gavriloff [4], Brigitte Holzinger [6], Angelika Schlarb [7], Lukas Frase [2], Susanna Jernelöv [8 9 10], Dieter Riemann [2]

6 RECOMMENDATIONS OF THE CBT-I ACADEMY TASKFORCE TO DEAL WITH SLEEP PROBLEMS DURING HOME CONFINEMENT

The theoretical basis for the below recommendations is given in previous paragraphs.

- Try to keep a regular night-time and wake-up time schedule: always get up at more or less the same time, bring some structure to the day, in particular for children.
- Schedule brief (e.g. 15 min) times during the day to stress and reflect upon the situation: write thoughts down, talk about stress, etc. Try to restrict your thinking about these things to specific times to reduce the chance that this stress interferes with night-time sleep.
- If possible, use your bed only for sleep and sex, and for no other activity; this is best achieved by only going to bed when you normally feel sleepy.
- Use the current opportunity to follow your natural sleep rhythm closer (in particular for evening types and adolescents).
- Use this opportunity to allow your sleep period to fit more with your natural circadian preference (e.g. for an earlier or later sleep–wake timing than is typically allowed, in particular for adolescents, older adults and evening types – see explanations above).
- Use social media to share feelings of stress and anxiety with family and friends, but also to share distracting positive information, e.g. with humorous content, possibly unrelated to the virus outbreak. However, do not take devices and tablets into the bedroom; switch them off before going to bed to reduce sleep disruption due to light exposure, notifications, and the need to respond to requests and posts.
- Find helpful distractions, keep busy with those activities you are familiar with and enjoy doing.
- Limit the amount of time you are exposed to news about COVID-19. If more time is available and means allow it: make your home and in particular your bedroom a more comfortable, quiet, dark and cool environment.
- Exercise regularly, preferably in daylight.
- Try to get natural daylight during the day, particularly in the morning, and if not possible, have your home brightly lit in the daytime by opening curtains and blinds, or having lights on; try to have dim light during the evening, with it even darker at night.
- Choose familiar and relaxing activities before bedtime: e.g. reading a book, yoga, etc.
- If you are less active during the day than normal, also eat less at set times, and at the latest 2 hr before desired sleep onset, to prevent sleep disruption.

7 RECOMMENDATIONS FOR PARTICULARLY WOMEN AND CHILDREN IN FAMILY CONTEXTS

- Mind the gender gap! Be careful that women in families with small children do not get overloaded with family and/or working activities. This includes bedtime routines, child night-time and/or early morning care, planning of daytime activities.
- Keep regular sleep times for your child or children (and for yourself); select the best time for them and keep them in a pattern.
- Make the last 30 min before bedtime a regular routine that includes calming activities. Choose activities that not only the child enjoys, but that you do too. A parent happy to be with him/her is what a child enjoys most. Keep the order and duration of activities similar each night.
- While using computer, smartphones and watching TV more than usual may be inevitable in confinement, avoid technological devices after dinner or too close to bedtime.
- Do not allow your children to use smartphones, tablets or TV in bed.
- If your household space allows it, try to avoid children using their bed for activities other than sleeping (e.g. eating, playing, homework), or make a clear distinction between daytime bed use and night-time bed use (e.g. by changing a cover, sleep pillows versus wake pillows).
- If you can go out, it is best to go out in the morning, and have your breakfast in a place with bright light, if possible a garden or balcony.
- If you cannot go out, still take care of your child's physical activity. A large amount of creative online programs for sports at home with children has been set up in many countries. These may be very helpful.
- Keep the child's room comfortable (temperature at about 19°C, and dim light at night).
- Reassure children that keeping to schedules and routine helps them to sleep well and deal with their emotions.
- In case of anxious awakenings, reassure children during the night.
- Do not sleep in the same bed as the child. Instead, (repetitive) reassurance is more effective.

Time to think creatively

Create a routine

Review > J Glob Health. 2020 Dec;10(2):020315. doi: 10.7189/jogh.10.020315.

Regularizing daily routines for mental health during and after the COVID-19 pandemic

Wai Kai Hou [1], Francisco Tt Lai [2], Menachem Ben-Ezra [3], Robin Goodwin [4]

First, it is important to recognize that daily routines are likely to differ in their impact on mental health. Daily routines can be parsed into two types [7]. *Primary routines* are behaviors necessary for maintaining livelihood and biological needs, such as hygiene, sleep, and eating. *Secondary routines* reflect individual circumstances, motivations and preferences, and include exercising, leisure/social activities, and practices associated with work or study, including keeping oneself on time and meeting goals and targets. During a pandemic, some routines are disrupted as a result of stress (eg, sleep) while other disruptions result from economic factors (eg, work activities). Routines are often terminated due to other contextual restrictions, for example, face-to-face interactions with relatives, friends, or coworkers. With our multitude of daily activities, disruption and termination can often co-occur. Because primary routines regularize the overall structure of daily living, disruption and termination of primary routines have a more pivotal role in mental health during acute stress [3,5,6].

Second, primary and secondary daily routines can be usefully consolidated and replaced, while new routines can be added [8]. Consolidation of existing routines may mean, for example, that time at home is used for household tasks or indoor leisure activities. Replacement could include using telephone/video calls or social media instead of face-to-face interaction. Adaptive new routines can be added to complete the everyday life structure, for example, by spending more time exercising or ensuring personal and household hygiene. During a pandemic, new routines might include lengthier handwashing (perhaps to a song) or other preventive measures such as wearing a mask and washing hands more often. These behaviors restore a sense of normalcy, controllability, and predictability. It is important to note that some of them, for example the regular use of mask for infection prevention, will vary across sociocultural contexts.

Two principles guide the sustainment of daily routines. Primary routines (eg, regular healthy diet, sleep, and personal hygiene) should be prioritized over secondary routines including leisure and social activities, exercising, and work/study in order to maintain an overall regular daily living that directly enables positive mental health. Consolidation should be prioritized prior to replacement and addition, because fewer resources are needed for consolidating disrupted routines relative to replacing or adding new ones. During times of high stress, consolidation of existing social ties with family and friends is preferred over the addition of new social partners [9].

Practice random acts of kindness.

Review > Rev Psiquiatr Salud Ment. 2020 Nov 4;S1888-9891(20)30101-4.
doi: 10.1016/j.rpsm.2020.08.002. Online ahead of print.

Can we increase the subjective well-being of the general population? An umbrella review of the evidence

[Article in En, Spanish]

Aleix Solanes [1], Anton Albajes-Eizagirre [2], Miquel A Fullana [3], Lydia Fortea [4], Paolo Fusar-Poli [5], Carla Torrent [6], Brisa Solé [6], Caterina Mar Bonnín [6], Jae Il Shin [7], Eduard Vieta [6], Joaquim Radua [8]

Methods: We conducted an umbrella review of systematic reviews and meta-analyses of RCT that assess the efficacy of any kind of interventions in increasing SWB in the general population, including both positive psychology interventions (PPI) and other interventions. We (re)calculated the meta-analytic statistics needed to objectively assess the quality of the evidence of the efficacy of each type of intervention in improving each component of SWB according to the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach.

Results: There was moderate-quality evidence that PPI might induce small decreases of negative affect, and low-quality evidence that they might induce moderate increases of positive affect. We found similar results for those PPI specifically consisting in conducting acts of kindness (especially spending money on or giving items to others), for which there was low-quality evidence that they might induces small increases of life satisfaction, but not for PPI specifically consisting in practicing gratitude. Quality of the evidence of the efficacy for the other interventions included in the umbrella review (yoga, resilience training, physical activity, leisure, control enhancement, psychoeducation, and miscellaneous) was very low.

Conclusion: There is some evidence that PPI, and specially conducting acts of kindness such as spending money on others, may increase the SWB of the general population. The quality of the evidence of the efficacy for other interventions (e.g., yoga, physical activity, or leisure) is still very low. Registration number: PROSPERO CRD42020111681.

Practice gratitude

> Front Psychol. 2019 Mar 21;10:584. doi: 10.3389/fpsyg.2019.00584. eCollection 2019.

Positive Psychology and Gratitude Interventions: A Randomized Clinical Trial

Lúzie Fofonka Cunha [1], Lucia Campos Pellanda [2], Caroline Tozzi Reppold [1]

Abstract

Objective: The purpose of this study was to assess the effect of a gratitude intervention on a community sample of adults in relation to aspects involving well-being and mental health. **Methods:** A randomized clinical trial was conducted with 1,337 participants, composed of an intervention group (Gratitude group, n = 446), and two control groups (Hassles group, n = 444 and Neutral Events group, n = 447). Participants assigned to the intervention condition were asked to write daily gratitude lists for 14 days, listing moments they had been grateful for during the day. The outcomes analyzed were affect, depression, happiness and life satisfaction. Participants completed the positive affect and negative affect schedule (PANAS), center for epidemiological studies depression scale (CES-D), subjective happiness scale (SHS), and satisfaction with life scale (SWLS) three times: pre- and post-intervention and at 14 days after the end of the intervention. Due to attrition, the number of participants analyzed was 410. **Results:** Before the intervention, the groups did not differ in any of the variables examined, and loss to follow-up was random among the three groups. The gratitude intervention managed to increase positive affect, subjective happiness and life satisfaction, and reduce negative affect and depression symptoms. This change was greater than the changes in the control groups in relation to positive affect. In the other outcomes analyzed, similar changes were observed in the gratitude intervention and the neutral events intervention. **Conclusion:** Some similarities were found between the Gratitude and the Neutral Events groups probably because participants in the last group usually recorded positive events from their days on the lists, turning it into an activity very similar to that proposed to the gratitude group. Some limitations of the study are discussed, such as the high dropout rate for self-performed online interventions. It is necessary to investigate which characteristics of an intervention ensure better results when the intervention is performed online. **Trial Registration:** The study is registered in the Brazilian Clinical Trials Registry, under No. RBR-9j9myd. Trial URL: http://www.ensaiosclinicos.gov.br/rg/RBR-9j9myd/.

Randomized Controlled Trial > Psychother Res. 2018 Mar;28(2):192-202.
doi: 10.1080/10503307.2016.1169332. Epub 2016 May 3.

Does gratitude writing improve the mental health of psychotherapy clients? Evidence from a randomized controlled trial

Y Joel Wong [1], Jesse Owen [2], Nicole T Gabana [1], Joshua W Brown [3], Sydney McInnis [4], Paul Toth [5], Lynn Gilman [1]

Abstract

Although the past decade has witnessed growing research interest in positive psychological interventions (PPIs), their potential as adjunctive interventions for psychotherapy remains relatively unexplored. Therefore, this article expands the frontiers of PPI research by reporting the first randomized controlled trial to test a gratitude writing adjunctive intervention for psychotherapy clients. Participants were 293 adults seeking university-based psychotherapy services. Participants were randomly assigned to one of three conditions: (a) control (psychotherapy only), (b) a psychotherapy plus expressive writing, and (c) a psychotherapy plus gratitude writing. Participants in the gratitude condition wrote letters expressing gratitude to others, whereas those in the expressive writing condition wrote about their deepest thoughts and feelings about stressful experiences. About 4 weeks as well as 12 weeks after the conclusion of the writing intervention, participants in the gratitude condition reported significantly better mental health than those in the expressive and control conditions, whereas those in the expressive and control conditions did not differ significantly. Moreover, lower proportions of negative emotion words in participants' writing mediated the positive effect of condition (gratitude versus expressive writing) on mental health. These findings are discussed in light of the use of gratitude interventions as adjunctive interventions for psychotherapy clients.

Keywords: gratitude; intervention; mental health; positive psychology; psychotherapy.

Use the extra time to knock some items off your to-do list

Avoid Drugs and Excess Alcohol

> Lancet Public Health. 2020 May;5(5):e259. doi: 10.1016/S2468-2667(20)30088-8. Epub 2020 Apr 8.

Alcohol use and misuse during the COVID-19 pandemic: a potential public health crisis?

James M Clay [1], Matthew O Parker [2]

Stress is a prominent risk factor for the onset and maintenance of alcohol misuse. For example, chronic alcohol use results in neuroadaptations in stress and reward pathways, which lead to dysfunctional hypothalamic pituitary adrenocortical and sympathetic adrenomedullary axes, characterised by dysregulation of the cortisol response and deficits in emotional regulation.[2] In turn, these neuroadaptations lead to increased cravings for alcohol in response to stress. The effects of long-term social isolation on stress levels, including increased neuroendocrine responses and stress reactivity, have been described in non-human animals.[3] However, the ongoing lockdowns across many countries are unique and little is known of the effects on the general population of chronic isolation (with respect to health and wellbeing) in these circumstances

A risk factor for the onset and maintenance of alcohol misuse and alcohol use disorder is trait impulsivity (ie, the tendency to take risks or act without adequate forethought or reflection). Impulsivity can moderate stress-induced consumption of alcohol[4] and is also associated with relapse in addicted individuals.[5] Thus, this period of isolation might lead to a spike in alcohol misuse, relapse, and potentially, development of alcohol use disorder in at-risk individuals, therefore placing further strain on addiction and drug and alcohol services, and the health service in general, during and after the pandemic.

> Front Psychiatry. 2020 Jul 21;11:714. doi: 10.3389/fpsyt.2020.00714. eCollection 2020.

Substance Use Disorders and COVID-19: Multi-Faceted Problems Which Require Multi-Pronged Solutions

Wossenseged Birhane Jemberie [1 2 3], Jennifer Stewart Williams [4 5], Malin Eriksson [1], Ann-Sofie Grönlund [1], Nawi Ng [4 6], Marcus Blom Nilsson [1], Mojgan Padyab [1 2], Kelsey Caroline Priest [7], Mikael Sandlund [8], Fredrik Snellman [1], Dennis McCarty [9], Lena M Lundgren [1 10]

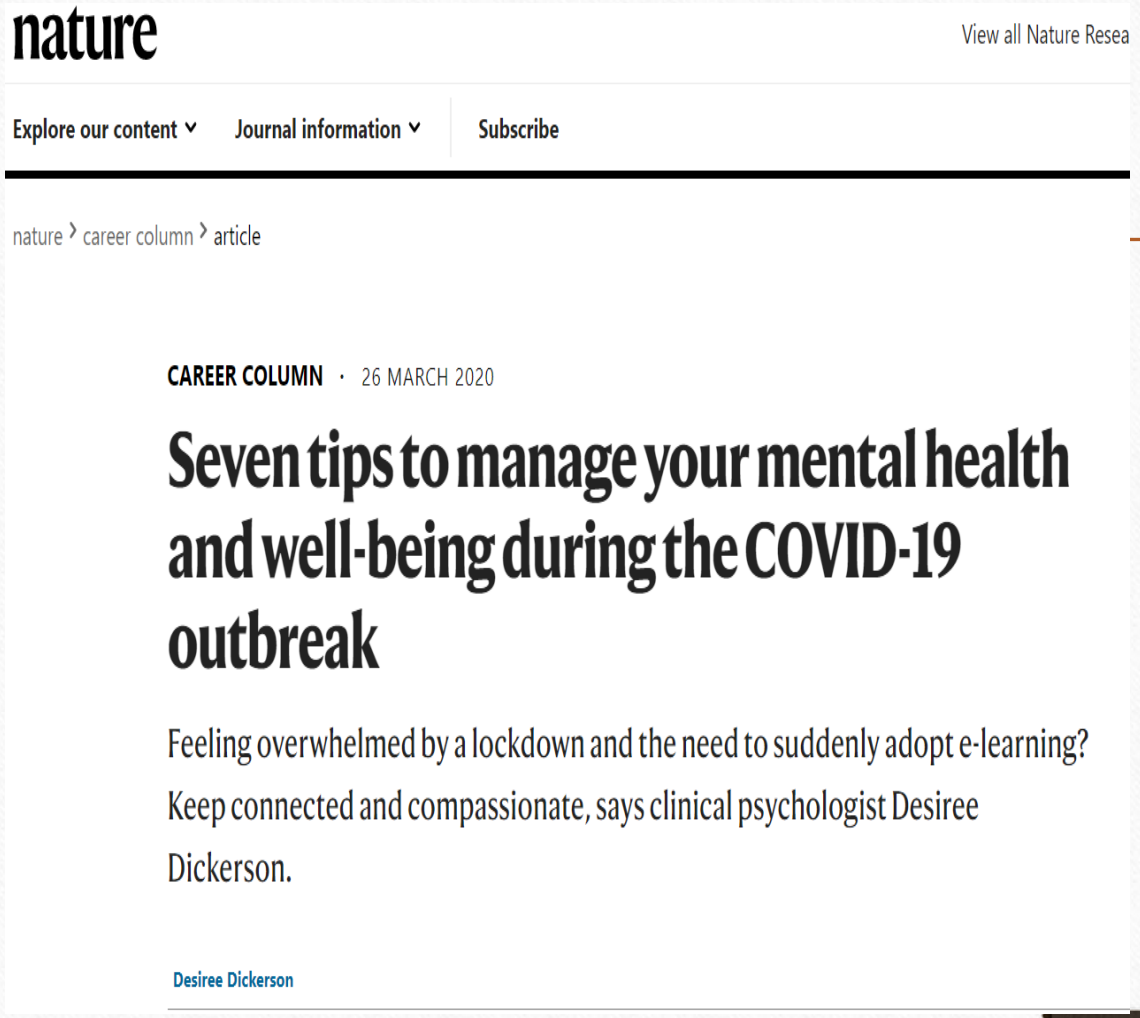
Affiliations + expand

PMID: 32848907 PMCID: PMC7396653 DOI: 10.3389/fpsyt.2020.00714

Free PMC article

Abstract

COVID-19 shocked health and economic systems leaving millions of people without employment and safety nets. The pandemic disproportionately affects people with substance use disorders (SUDs) due to the collision between SUDs and COVID-19. Comorbidities and risk environments for SUDs are likely risk factors for COVID-19. The pandemic, in turn, diminishes resources that people with SUD need for their recovery and well-being. This article presents an interdisciplinary and international perspective on how COVID-19 and the related systemic shock impact on individuals with SUDs directly and indirectly. We highlight a need to understand SUDs as biopsychosocial disorders and use evidence-based policies to destigmatize SUDs. We recommend a suite of multi-sectorial actions and strategies to strengthen, modernize and complement addiction care systems which will become resilient and responsive to future systemic shocks similar to the COVID-19 pandemic.



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CAREER COLUMN · 26 MARCH 2020

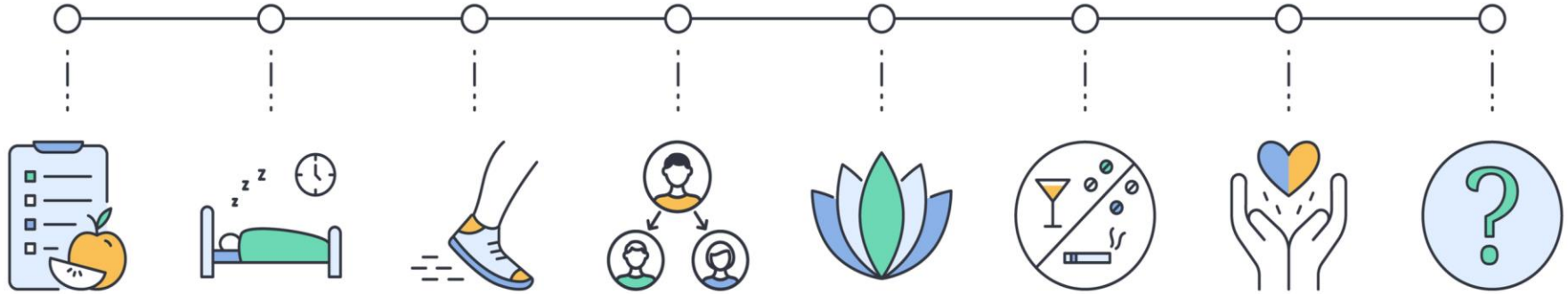
Seven tips to manage your mental health and well-being during the COVID-19 outbreak

Feeling overwhelmed by a lockdown and the need to suddenly adopt e-learning? Keep connected and compassionate, says clinical psychologist Desiree Dickerson.

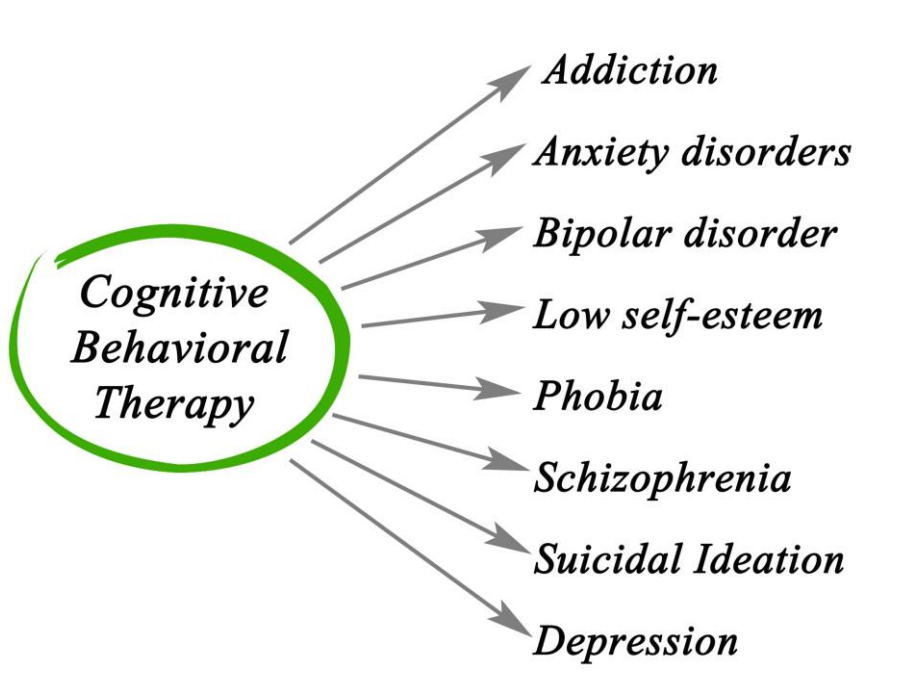
Desiree Dickerson

- Manage your expectations
- Proactively manage your stress threshold
- Know your red flags
- Routine is your friend
- Be compassionate with yourself and with others
- Maintain connections
- Manage uncertainty by staying in the present

MENTAL HEALTH



Cognitive Behaviour Therapy



Front Psychiatry. 2020; 11: 582007.
Published online 2020 Sep 9. doi: 10.3389/fpsyt.2020.582007
PMCID: PMC7509592
PMID: 33033487

Digital Health Solutions for Mental Health Disorders During COVID-19

Alton Ming Kai Chew,[1,2] Ryan Ong,[1,3] Hsien-Hsien Lei,[4] Mallika Rajendram,[1] Grisan K V,[5] Swapna K. Verma,[5,6] Daniel Shuen Sheng Fung,[1,5,6] Joseph Jern-yi Leong,[5] and Dinesh Visva Gunasekeran[1,7,*]

AI Chatbots

AI chatbots utilize pre-programmed content and decision-trees for automated conversations using techniques such as natural language processing (NLP). These are more interactive than static digital repositories leading to higher engagement for patients (30). Preliminary reports of AI chatbots that have been developed for mental health include solutions providing counseling for well individuals to improve psychological well-being (31). Others include AI chatbots such as Wysa for digital mental well-being with demonstrated effectiveness in patients with depression (32), and Woebot for cognitive behavioral therapy (CBT) in young adults with depression/anxiety symptoms (33).

Online Health Communities

Open digital patient engagement platforms that allow any visitor to a website or application to view interactions between patients and/or healthcare providers are called online health communities (OHCs). OHCs could be the silver bullet to the "infodemic", which is largely attributed to the unfettered spread of viral misinformation in unverified sources or platforms like social media, crowding out official communication (12, 40). In the earlier example of the impact of misinformation on fear during MERS, Choi et al. found that it created a positive feedback loop leading to a spiral of growing misinformation and paranoia, with the publication of more inaccurate information by the media in a bid to capitalize on public interest (8).

Telehealth Platforms for Remote Consultation

Digital telehealth services have numerous embodiments including video-conferencing, store-and-forward technology, remote tele-monitoring with connected devices, and mobile health applications, all of which are increasingly applied in large-scale disasters (45). These can be used for either Asynchronous or Synchronous consultations with private discussions between patients and healthcare providers (46). Existing descriptions of tele-mental health services indicate the importance of human support and interaction regardless of the embodiment of telehealth used (6, 12). Although its application in COVID-19 for mental health services has been greatly enabled by legislative changes (6), the barriers to telehealth adoption that have kept it from becoming mainstream to date still remain (47). Ensuring successful, sustained adoption requires active alignment with clinical needs when deploying services (6).

> Disaster Med Public Health Prep. 2020 Apr 22;1-2. doi: 10.1017/dmp.2020.114.
Online ahead of print.

Coronavirus Disease 2019 Pandemic: Health System and Community Response to a Text Message (Text4Hope) Program Supporting Mental Health in Alberta

Vincent I O Agyapong [1]

Affiliations + expand

PMID: 32317038 PMCID: PMC7198462 DOI: 10.1017/dmp.2020.114
Free PMC article

Abstract

In an effort to support the mental health of Albertans during the coronavirus disease 2019 (COVID-19) pandemic, Alberta Health Services launched a supportive text message (Text4Mood) program on March 23, 2020. The program was simultaneously approved for funding by the 6 regional health foundations and launched within 1 week of conception. Residents of Alberta can subscribe to the program by texting "COVID19HOPE" to a sort code number. Each subscriber receives free daily supportive text messages, for 3 months, crafted by a team of clinical psychologists, psychiatrists, mental health therapist, and mental health service users. Within 1 week of the launch of Text4Hope, 32 805 subscribers had signed up to the program, and there have been expressions of interests from other jurisdictions to implement a similar program to support the mental health of those in quarantine, isolation, or lockdown.

Keywords: Alberta; COVID19; Text4Hope; support; text messages.

Text4Hope

- Launched: March 23 2020
- Number enrolled as at November 15 2020 @ 2pm: 50,302

JMIR Res Protoc. 2020 Jun 22;9(6):e19292. doi: 10.2196/19292.

Closing the Psychological Treatment Gap During the COVID-19 Pandemic With a Supportive Text Messaging Program: Protocol for Implementation and Evaluation

Vincent Israel Opoku Agyapong [1 2], Marianne Hrabok [1 3], Wesley Vuong [2], April Gusnowski [2], Reham Shalaby [1], Kelly Mrklas [4 5], Daniel Li [1 2], Liana Urichuk [1 2], Mark Snaterse [2], Shireen Surood [2], Bo Cao [1], Xin-Min Li [1], Russ Greiner [6], Andrew James Greenshaw [1 7]

Affiliations + expand

PMID: 32501805 PMCID: PMC7309448 DOI: 10.2196/19292

Free PMC article

Outcome Measures

- Mean Difference in scores on the PSS, GAD-7, and PHQ-9 from baseline
- Changes in Prevalence of Moderate/High Stress, Likely GAD, & MDD in the intervention group compared to controls
  - [a] Moderate/High Stress defined as PSS ≥ 14
  - [b] Likely GAD defined as GAD-7 ≥ 10
  - [c] Likely MDD defined as PHQ-9 ≥ 10
  - [d] Suicidal ideation/thoughts of self-harm defined as PHQ-9 item 9 ≥1.
  - [e] Sleep Disturbances defined as PHQ-9 item 3 ≥1.

Text4Hope subscribers who completed both the baseline and six-weeks surveys (Paired t-test)

Measure	N (Total N=1038*)	Baseline scores Mean (SD)	6-weeks scores Mean (SD)	Mean Difference	95% Confidence Interval	p-value	t-value	Effect size (Cohen's d)
PSS	1038	20.5 (6.8)	19.4 (7.2) 5.1% change	-1.04	-1.38- -0.71	<0 .001	6.13	0.16
PHQ-9	956	9.3 (6.0)	8.7 (5.8) 6.5% change	-0.6	-0.92- -0.34	< 0.001	4.20	0.10
GAD-7	922	9.4 (5.6)	7.7 (5.3) 18.4% change	-1.73	-2.02- -1.43	<0 .001	11.60	0.31

Chi-Square test of association between the prevalence of clinical parameters and study arm

	Study Arm	
	Intervention Group N (%)	**Control Group** N (%)
Perceived Stress		
Moderate/High Stress[a]	**1468 (78·8%)**	**537 (88·0%)**
p-value	**<·001**	
Effect Size (Phi)	-0·102	
Generalized Anxiety Disorder (GAD)		
GAD likely[b]	**535 (31·4%)**	**265 (46·5%)**
p-value	**<·001**	
Effect Size (Phi)	-0·146	
Major Depressive Disorder (MDD)		
MDD likely[c]	**639 (36.8%)**	**298 (52·1%)**
p-value	**<·001**	
Effect Size (Phi)	-·135	
Suicidal Ideation/Thoughts of Self Harm[d]		
Experienced Suicidal Ideation/Self Harm Thoughts	**293 (16·9%)**	**152 (26·6%)**
p-value	**<·001**	
Effect Size (Phi)	-0·106	
Sleep Disturbances[e]		
Experienced Sleep Disturbances	**1336 (76·9%)**	466 (85·1%)
p-value	**·02**	
Effect Size (Phi)	-0·047	

Thank You