Full Length Article

Identifying evidence informed psychological interventions during the COVID-19 pandemic: Rapid review of the literature

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1. Introduction

The volume of individuals who have tested positive for COVID-19 has had a detrimental effect on the global health care system, with many countries experiencing rising infection rates and varying levels of strain, particularly among front line health care providers (Lancet, 2020). Many of these front-line health care providers work longer than normal hours, report increase stress, are at heightened risk for infection due to reduced access to personal protective equipment, and experience new psychiatric symptoms resulting in increased levels of distress (Montemurro, 2020). Globally, 20% of healthcare providers have been infected, with at least 22 deaths directly attributed to COVID-19 (Lancet, 2020).

In addition to the detrimental impact of COVID-19 on front line health care providers, a subgroup of these healthcare workers (e.g. registered nurses, physicians, respiratory therapists, physiotherapists) appear to present with increase severity of symptoms. This subgroup being front-line healthcare providers enrolled in university programs (i.e. graduate education, post-diploma, advanced certification programs) to advance their training. Anecdotal evidence suggests this cohort of front-line healthcare providers (FLHCP) experience severe anxiety, depression, physical and mental fatigue, and insomnia, compared to the general population of FLHCP. This may be a result of them practicing on the front line: they treat and care for patients diagnosed with COVID-19, while facing challenges related to working longer than normal hours, being on-call to respond to emergent situations or being redeployed to new units (requiring on-the-spot learning of health conditions and their management) as well as dealing with increased patient acuity. As mature students, many have additional responsibility of caring for dependents.

As well, this cohort of FLHCP face additional stress related to concurrent academic requirements. Educational programs moved to online delivery, with students being forced to contend with modification of lectures, redesign of courses, restructuring of assignments, and the integration of new methods for engagement with online materials and platforms. Challenges related to adapting to a new teaching method, access to digital technology and videoconferencing capabilities, space and privacy for teaching and learning, and ability to engage remotely have had to be sorted out and addressed in real time. All of these issues have and continue to contribute to increased stress among this cohort of healthcare providers. Thus, the combination of on-the-job stress, the risk of acquiring the virus and transmitting it to loved ones, and attendance to academic requirements, is unique to this cohort yielding heightened exhaustion and burnout.

The exorbitant amount of stress, anxiety and fatigue experienced by this specific cohort of FLHCP is alarming. High stress levels can compromise psychological endurance, which increases individual’s risk of acquiring the virus while negatively impacting on the quality of care they provide. Thus, it is important to ensure valid and reliable resources are made available for these individuals. A number of mental health resources are currently available to assist health care providers in managing their stress; however, it is unclear if the listed strategies are evidence-based. The purpose of this rapid review was to review the literature to determine which of the strategies or therapies presented...
among the resources are evidence-based, thus, having the potential to benefit this cohort. This information is needed to begin to formulate a collection of evidence based psychological resources to support FLHCP concurrently enrolled in university to increase their resilience and mitigate attrition within the workplace during the current and future waves of the COVID-19 pandemic.

1.1. Research questions

This rapid review addressed the following research questions: 1) what resources pertaining to stress, anxiety, insomnia, well-being, physical function, resilience, post-traumatic stress disorder, and/or depressive symptoms are available to FLHCP who are also concurrently enrolled in a university program? and 2) are these resources based on empirical and/or theoretical evidence?

2. Materials and methods

2.1. Design

A rapid review was conducted to inform evidence-based decision-making pertaining to the selection of effective strategies or therapies that this cohort could use to promote mental health and resilience both within the clinical practice and academic environment.

2.2. Inclusion criteria

Resources were included as part of this review based on their relevance as oppose to methodological rigor. As a result, links to online materials and video recordings; as well as references to empirical papers, non-empirical manuscripts, and workshops/sessions were considered for inclusion in this review. Furthermore, this rapid review only addressed resources that were available via publicly facing internet sites. Unit or inclusion in this review. Furthermore, this rapid review only addressed resources that were available via publicly facing internet sites. Unit or employee initiated one on one consultations with mental health professionals that may have been available via internally facing Intranet sites were not reviewed because the researchers did not have institutional access to these materials/resources.

The search was limited to resources that were available from the start of the pandemic; identified as COVID-19 specific interventions; and which have a focus on insomnia, stress, anxiety, depressive symptoms, well-being, physical function, resilience, or post-traumatic stress disorder; to capture the range of mental health symptoms associated with psychological health. The selection of therapies for each symptom was intentionally kept general to ensure a wide-ranging scope of potential interventions are identified. The search was conducted over the period of three months from May to August 2020.

2.3. Search strategy, screening, and data extraction

The search strategy began by reviewing all academic, hospital, home, community, and long-term care webpages. In particular, the home page, human resource, and occupational health pages were reviewed. As well, google search engine was used to identify additional resources using the following search terms: COVID-19; coronavirus, frontline healthcare workers, university programs, mental health resources, healthcare providers, academic institutions, university assistance for mental health, counselling resources, healthcare professionals, frontline student nurses, mental health help, registered nurses, physicians, respiratory therapists, physiotherapists, social workers, personal support workers, registered practical nurses, frontline healthcare student, university mental health resources, and COVID-19 healthcare professionals.

All resources retrieved were reviewed independently by both the first author and a trained research assistant. The screening process consisted of the research assistant previewing the information to determine it fits with specific mental health symptoms associated with psychological health. If the resources addressed any of the following psychological symptoms: stress, anxiety, insomnia, well-being, physical function, resilience, post-traumatic stress disorder, or depressive symptoms, it was included in the review. In case of any uncertainty about the relevance of the resources; these were then shared with the study team members to determine relevance and fit with study inclusion criteria. No discrepancies appeared at the final stage of screening. The search yielded 84 COVID-19 psychological online resources within the academic setting and 53 COVID-19 online mental health resources within the clinical settings (Fig. 1).

Data were extracted pertaining to whether or not the resources addressed any or all of the mental health symptoms (i.e. stress, anxiety, insomnia, well-being, physical function, resilience, post-traumatic stress disorder, and/or depressive symptoms), as well as whether or not the resources were evaluated to determine effectiveness. Data collected were presented in a table format based on specific mental health symptoms (Table 1).

2.4. Data analysis

Following the data collection, descriptive analysis was conducted to describe the findings based on data type that included: type of resources listed (i.e. behavioural therapy, physical exercise, mindfulness, meditation, yoga, deep breathing, relaxation therapy); type of mental health symptom addressed (stress, anxiety, insomnia, well-being, physical function, resilience, post-traumatic stress disorder, depressive symptoms); format for resources delivery (i.e. website written information, video, audio recordings, online workshop/modules); access to resources, that is was the resources (direct link access; need to go through several links to access resources); cost of resources (free, partially free with limited access, payment required), intended audience (healthcare providers, students inclusive of healthcare providers who are concurrently enrolled as students, specific cohort of healthcare providers) for number and type of components associated with the intervention, and whether or not resources were designed and/or evaluated based on evidence as indicated through reporting or referencing of evaluation (yes, no).

3. Results

3.1. Resources commonly listed for each symptom

In total, 137 mental health resources were identified. Many of the resources addressed more than one symptom: well-being (n = 58), stress (n = 50), anxiety (n = 37), resilience (n = 32), physical function (n = 21), depressive symptoms (n = 15), insomnia (n = 12), and post-traumatic stress disorder (n = 4). The ten most common types of mental health resources included: meditation (15.3%, n = 21), mindfulness (11.7%, n = 16), physical exercise (n = 13; 9.5%), yoga (n = 12; 8.8%), relaxation therapy (n = 10; 7.3%), self-care information (n = 5; 3.6%), deep breathing (n = 4; 2.9%), and cognitive behavioural therapy (n = 4; 2.9%) (Table 2).

3.2. Evidence based resources

Less than a quarter (n = 24; 17.5%) of the resources were identified as having been evaluated and/or designed based on evidence (Table 1). These resources addressed all of the mental health symptoms listed. They also included many popular apps (i.e. happify, headspace, wyss), websites (i.e. virusanxiety, moodygym, here2help, coolspiration, awake network, bigwhitehall), and written documents (i.e. WHO COVID-19 PDF resources).

3.3. Access to resources

The search on clinical and academic websites required navigating through a number of screens, online advertisements, as well as the
clicking through various links before being able to access the intervention. Many of the interventions were obscure and were not readily available. Several sites required users to read onerous text, followed by an online registration before being provided with access to online mental health resources. This was especially true for academic websites, in which users had to search several sites before being able to find resources.

3.4. Characteristics of resources identified

The majority of resources were provided in combined formats (n = 70, 51.0%) that included various combinations of online, audio, video, and telephone chats. Just over 25% (n = 35) of these resources were delivered by video, with ten (7.2%) provided in PDF or online written text format, nine (6.5%) provided through audio recordings, four (2.9%) through e-learning modules and one (0.7%) through online workshops. The vast majority (n = 115; 83.9%) of resources were only accessible by navigating through a number of links. For the most part, the (n = 130; 94.8%) interventions were free. However, a small (n = 7; 5.1%) number of resources provided limited access to resources with payment required to access the full scope of the intervention; and one (0.9%) intervention required full payment to access resources. Healthcare providers, that consisted primarily of nurses (n = 110; 80.2%), students inclusive of healthcare providers who are concurrently enrolled as students (n = 18; 13.1%), and specific cohorts of healthcare providers that included: psychotherapists, social workers, physicians, and graduate level students (n = 7; 5.1%) were the target audience for the design and delivery of the mental health interventions.

4. Discussion and limitations

It appears, well-being, stress, anxiety and resilience were the most prevalent symptoms that were addressed in the mental health resources that were identified. However, of concern, is the significant number of resources that are online that have not been designed based on evidence or even been evaluated to determine their effectiveness in addressing mental health symptoms. This is worrisome as these resources that are being put forward may not be based on the best evidence and may result in potentially harmful situations for users as well as ineffective. Thus, being able to create and maintain an up-to-date database of evidence informed mental health resources is critical for this cohort of frontline health care providers, who may not have the knowledge or time to determine the validity and reliability of these resources in advance of integrating them into their daily routines.

Furthermore, the difficulty associated with navigating through multiple screens, having information being embedded within various pages, and the need to subscribe prior to being able to readily identify mental health resources are of concern, as students who are experiencing moderate to high levels of stress, anxiety, and depression have been shown to have significantly reduced levels of cognitive functioning, self-esteem, and academic performance (Bayram and Bilgel, 2008; Dyrbye et al., 2006). Thus, if this cohort who is already experiencing high levels of

Fig. 1. Prisma flow diagram.
| Mental Health Symptom | Resources | Medium | THEME | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|----------------------|-----------|--------|-------|------------------|-------------------------------------------------------------|
| Stress               | https://bb31a78a-5c66-4d5b-950e-8d7723740e07.filesusr.com/ugd/021036_d36f9fbb37e14296a38fe-bf6d7493ef.pdf?index=true | Single PDF document | Mindfulness | Physician | No |
| Stress               | https://medschool.ucsd.edu/som/fmph/research/mindfulness/pages/default.aspx | Tools and resources to address stress | Mindfulness exercises | Healthcare providers | No |
| Stress               | https://www.headspace.com/ | Headspace - provides access to hundreds of online resources - partially free with limited access | Guided Meditations - tools and resources to look after the mind | Healthcare providers | Yes |
| Stress               | https://www.sanvello.com/ | Sanvello - provides access to online resources | Self-care, peer support, coaching, therapy | Healthcare providers | Yes |
| Stress               | https://my.happify.com/ | Happify - single destination for effective, evidence-based solutions for better mental health | Meditations and online resources - partially free with limited access | Healthcare providers | Yes |
| Stress               | https://www.wysa.io/ | Wysa- keeps track of your mood with friendly chats and helps you fight stress and anxiety with tailored tools and exercises | Friendly chats, tailored tools and exercises | Healthcare providers | Yes |
| Stress               | https://www.calm.com/ | App for sleep, meditation, and relaxation - partially free with limited access | Meditate - Learn the life-changing skill of meditation; Sleep - Get more restful sleep and wake up feeling refreshed; Music - Exclusive music to help you focus, relax, sleep; Body - Video lessons on mindful movement and gentle stretching; Masterclass - Audio programs taught by world-renowned mindfulness experts; Scenes - Nature scenes and sounds to enjoy while relaxing, sleeping, working or studying | Healthcare providers | No |
| Stress               | https://boldly.joulecma.ca/home/managing-covid-19-stress-and-anxiety Website - online information Self-care guide Healthcare providers | Ontario Shores - All health care workers dealing with mental health challenges during this pandemic can get rapid access to a new service to support their resiliency and recovery. | | Health care providers | No |
| Stress               | https://bouncebackontario.ca/ | Website | Self-care - skill building activities | Healthcare providers | Yes |
| Stress               | https://pg.postmd.utoronto.ca/wp-content/uploads/2020/04/RESOURCES_Managing-Stress-w-COVID-19-.pdf | PDF document | Written document for Self-Care tips during and after the outbreak | Physicians who are students | No |
| Stress               | https://pg.postmd.utoronto.ca/wp-content/uploads/2020/05/Psychological_FirstAid_HealthCare_COVID-19_Workbook_Final_2.pdf | Workbook | Strategies to enhance wellbeing focusing on: | physicians who are students | No |

(continued on next page)
| Mental Health Symptom | Resources | Medium | THEME | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|-----------------------|-----------|--------|-------|-------------------|---------------------------------------------------------------|
| Stress                | https://www.ptsd.va.gov/covid/COVID_healthcare_workers.asp | Website | Tips and strategies for managing stress | Healthcare providers | No |
| Stress                | https://www.desouzainstitute.com/wp-content/uploads/Mindfulness-Flyer.pdf | 30 min virtual mindfulness sessions offered on Mon, Tues, Wed, Thurs | Mindfulness - Drop in and learn short mindfulness exercises to help find calm in the midst of challenge. Relax, recharge, and learn how to incorporate moments of mindfulness into your day | Healthcare providers | No |
| Stress                | https://pg.postmd.utoronto.ca/wp-content/uploads/2020/04/TIPS_Keeping-health-y-w-COVID-19_20mar31.pdf | MD-led virtual chats and PDF document providing | Steps to promoting resilience | physicians who are students | No |
| Stress                | https://pg.postmd.utoronto.ca/wp-content/uploads/2020/04/FACT-SHEET_Buddy-system_20mar31.pdf | PDF Fact Sheet | Uses the Buddy System to foster the sharing of responsibilities of well-being, safety, and active support | physicians who are student | No |
| Stress                | https://www.bayspsychology.ca/workshops | DBT Workbook | Dialectical Behaviour Therapy (DBT) - managing feelings, skills, and emotions with tolerance | psychotherapists, social workers, physicians, and graduate level students | No |
| Stress                | https://cpra.ca/corona-virus/psychservices/ | Free virtual counselling with psychologists | Counselling | Healthcare providers | No |
| Stress                | https://www.albertahealthservices.ca/tspcsth/repage17019.aspx | Text4Hope - free service providing three months of daily CBT- | Cognitive Behavioural Therapy (CBT) - based text messages written by mental health therapists. | Healthcare providers in Alberta | No |
| Stress                | https://www.virusanxiety.com/ | A website and app by Shine - articles, meditations, mindfulness, expert connections, relaxation exercises | Free online toolkit with resources to promote mental wellness and health | Healthcare providers | Yes |
| Stress                | https://www.tenpercent.com/coronavirusanxietyguide | Website | Guided meditations, blogs, podcasts provided free to healthcare providers | Healthcare providers | No |
| Stress                | https://www.corepoweryogaondemand.com/keep-up-your-practice/?fbclid=IwAR3-T4eGv51R7S2KGV/6loLogWAobw3n64mYyPqAq75oPpu328pxzAZfuA | Collection of online videos | Yoga | Healthcare providers | No |
| Stress                | https://www.youtube.com/user/yogawithadriene/featured | Collection of youtube videos | Yoga | Healthcare providers | No |
| Stress                | https://www.youtube.com/playlist?list=PLPbDo1Dse11ysp2ugMFNgqaHdJJH6Tpzq | Collection of guided meditation videos | Meditation | Healthcare providers | No |
| Stress                | https://www.betterhelp.com/helpme/?utm_source=AdWords&amp;campid=ftc_305196092148660&campaign=25637168530&amp;matchtype=3&amp;medium=organic&amp;gclid=EAIaIQobChMI8b9V71BRDwARIsABJ93QoPvSh9m-aie4NqG2erPqG_K3ruR8fJ0r3e1p8518xn5Co2ByVwr7C1MaApbZEAIdxw_wc8&amp;not_found=1&amp;gooru= -helpme | Virtual counselling - free for a limited time | Therapy counselling | Healthcare providers | No |
| Stress                | https://ephysicianhealth.com/ | | | | No |

(continued on next page)
| Mental Health Symptom | Resources | Medium | THEME | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|-----------------------|-----------|--------|-------|------------------|---------------------------------------------------------------|
| Stress                | [Virtual podcasts and modules](https://www.calm.auckland.ac.nz/index.html) for mental health, weight, nutrition, and fitness | Virtual podcasts and modules for mental health, weight, nutrition, and fitness | eLearning modules for self-care with mental and physical health | Physicians and medical students | No |
| Stress                | [Virtual podcasts and modules](https://cdn.dal.ca/content/dam/dalhousie/pdf/faculty/medicine/departments/cor e-units/resident-affairs/The%20Basics%20Strategies%20for%20dealing%20with%20stress%20and%20building%20resilience.pdf) | PDF document outlining Basics Strategies for coping with stress & building resilience for mental health support | Computer assisted learning self-care strategies - to manage stress, depressive symptoms, anxiety, and promote resilience | Healthcare providers | No |
| Stress                | [Virtual podcasts and modules](https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/managing-stress-anxiety.html) for self-care with mental and physical health | Virtual information - coping with stress during the pandemic with a number of PDF and external links for help with talking to others | Self-care guide | Physicians | No |
| Stress                | [Virtual podcasts and modules](https://drive.google.com/file/d/1FopkiPYKcy2l4FPcgPdRZKAM5y850pp/view) | A PDF with general information about coping with stress during the pandemic with additional links to websites and people for resources | Self-care with coping and managing strategies | Healthcare providers | Yes |
| Stress                | [Virtual podcasts and modules](https://insighttimer.com/) | Online community for meditation - partially free with limited access | Meditation, Music, and talks posted by contributing experts | Healthcare Providers | Yes |
| Stress                | [Virtual podcasts and modules](https://www.who.int/docs/default-source/coronaviruse/coping-with-stress.pdf) | PDF produced by WHO | Self-care coping strategies for dealing with stress | Healthcare providers | Yes |
| Stress                | [Virtual podcasts and modules](https://www.youtube.com/watch?v=hnpQrMqDoqE) | Youtube video | Self-care strategies - animated video with tips for keeping stress under control | Healthcare providers | No |
| Stress                | [Virtual podcasts and modules](https://www.youtube.com/watch?v=oIiOAQfQDoQy) | An assignment calculator which creates a schedule to reduce stress | Mindfulness - activities that addresses emotions, Breathing exercises to address stress, mood, and anxiety | Healthcare providers who are students | No |
| Stress                | [Virtual podcasts and modules](https://my.life/) | Online app - partially free with limited access | Self-care | Healthcare providers | No |
| Stress                | [Virtual podcasts and modules](http://t2health.dcoe.mil/apps/breathe2relax) | Free virtual tool | Self-care | Healthcare providers | No |
| Stress                | [Virtual podcasts and modules](http://apps.library.ryerson.ca/assignment-calculator/) | Online audio | Guided imagery - address tension and stress | Healthcare providers | No |
| Stress                | [Virtual podcasts and modules](http://www.youtube.com/watch?v=ipO3AuqbZq8) | Online video | Meditation - practice Buddhist Walking Meditation | Healthcare providers | No |
| Stress                | [Virtual podcasts and modules](https://www.youtube.com/watch?v=ipO3AuqbZq8) | Youtube video | Strategies to address stress and anxiety | Healthcare providers | No |
| Stress                | [Virtual podcasts and modules](https://good2talk.ca/about/) | Counselling and referrals | A free, confidential support service to talk to a | Healthcare providers | Yes |

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| Mental Health Symptom | Resources                                                                 | Medium                                                                 | THEME                                                                 | Intended audience          | Evidence Based reporting or referencing of evaluation (yes, no) |
|-----------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------|---------------------------------------------|
| Stress                | https://www.youtube.com/watch?v=-Rkz7vJ02ZHU&amp;feature=youtu.be         | Video for how to cope with COVID-19                                     | Three steps to coping with COVID-19 - Problem, Emotion, Meaning        | Healthcare providers       | No                                         |
| Stress                | https://pg.postmd.utoronto.ca/wp-content/uploads/2020/04/RESOURCES_CAMH-Mental-Health-and-the-COVID_20Mar31.pdf | FACT sheet                                                            | Strategies for addressing mental health and stigma                     | Physicians who are student | Yes                                        |
| Stress                | https://www.thewakennetwork.com/free-online-meditation-resources-for-the-time-of-social-distancing/ | Awake Network                                                        | Meditation - Free Online Meditation Resources for Times of Social Distancing/COVID-19 | Healthcare Providers       | Yes                                        |
| Stress                | https://mindfulnessexercises.com/free-online-mindfulness-courses/         | Free online mindfulness exercises                                      | Mindfulness Exercises                                                  | Healthcare providers       | No                                         |
| Stress                | https://wellness.mcmaster.ca/app/uploads/2020/04/Online-Resources-for-Mental-Wellness-and-Social-Connection.pdf | Online (Apps and websites) resources for social connection and mental wellness during COVID-19 | Apps to help with increasing social connection; promoting mental wellness; online resources for mental health; and tips for managing mental health evidence-based exercise to help you breathe to reduce stress levels | Healthcare providers       | No                                         |
| Stress                | https://apps.apple.com/ca/app/breathe2relax/id425720246                   | Free app that provides detailed info on stress                         |                                                                                                                   | Healthcare providers       | No                                         |
| Stress                | https://www.youtube.com/playlist?list=PLIA11CDC25D710702                   | Collection of Youtube videos                                           | Yoga                                                                 | Healthcare providers       | No                                         |
| Stress                | https://vimeo.com/400663720                                                 | Online video                                                          | Stress management strategies                                          | Physicians                | No                                         |
| Stress                | http://www.camh.ca/en/health-info/mental-health-and-covid-19/copings-with-stress-and-anxiety | Website                                                               | Coping strategies and personal assessment tools to help manage stress and anxiety | Healthcare providers       | Yes                                        |
| Stress                | https://medical.mit.edu/sites/default/files/mindful_yoga.mp3              | Audio recording of Yoga session                                       | Yoga                                                                | Healthcare providers       | No                                         |
| Stress                | https://www.youtube.com/watch?v=l6402Qlp52M&amp;feature=youtu.be         | Youtube video for how to deal with stress                             | Self-care                                                            | Healthcare providers       | No                                         |
| Stress                | https://buddhify.com/                                                      | App to address sleep and stress                                       | Meditation and Mindfulness exercises                                   | Healthcare providers       | Yes                                        |
| Anxiety               | https://bh31a78a-5cf6-4d5b-950e-8d7723740e07.filesusr.com/ugd/021036_d36f9fbb37e14296a38fe4bdf74936ef.pdf?index=true | Single PDF document                                                   | Mindfulness                                                           | Physician                  | No                                         |
| Anxiety               | http://healthcare.dcoe.mil/apps/breathe2relax                              | Free virtual tool                                                     | Breathing exercises to address stress, mood, and anxiety              | Healthcare providers       | No                                         |
| Anxiety               | https://www.headspace.com/                                                | Headspace - provides access to hundreds of online resources - partially free with limited access | Guided Meditations - tools and resources to look after the mind       | Healthcare providers       | Yes                                        |
| Anxiety               | https://www.anxietycanada.com/resources/mindshift-cbt/                   | Mindshift CBT                                                         | Cognitive Behavioural Therapy (CBT) strategies to help students learn to relax and be mindful, develop more effective ways of thinking, and use active steps to take charge of your anxiety. | Healthcare providers       | Yes                                        |
| Anxiety               | https://www.sanvello.com/                                                 | Sanvello - provides access to online resources                        | Self-care, peer support, coaching, therapy                           | Healthcare providers       | Yes                                        |
| Mental Health Symptom | Resources | Medium | THEME | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|-----------------------|-----------|--------|-------|-------------------|-------------------------------------------------------------|
| Anxiety               | https://my.happify.com/ | Happify- single destination for effective, evidence-based solutions for better mental health | Meditations and online resources - partially free with limited access | Healthcare providers | Yes |
| Anxiety               | https://www.wysa.io/ | Wysa-keeps track of your mood with friendly chats and helps you fight stress and anxiety with tailored tools and exercises | Friendly chats, tailored tools and exercises | Healthcare providers | Yes |
| Anxiety               | https://www.youtube.com/playlist?list=PL1A11CDC25D710702 | Collection of Youtube videos | Yoga | Healthcare providers | No |
| Anxiety               | https://www.calm.com/ | App for sleep, meditation, and relaxation - partially free with limited access | Meditate - Learn the life-changing skill of meditation; Sleep - Get more restful sleep and wake up feeling refreshed; Music - Exclusive music to help you focus, relax, sleep; Body - Video lessons on mindful movement and gentle stretching; Masterclass - Audio programs taught by world-renowned mindfulness experts; Scenes - Nature scenes and sounds to enjoy while relaxing, sleeping, working or studying | Healthcare providers | No |
| Anxiety               | https://pg.postmd.utoronto.ca/wp-content/uploads/2020/04/RESOURCES_Managing-Stress-w-COVID-19-.pdf | PDF document | Written document for Self-Care tips during and after the outbreak | physicians who are student | No |
| Anxiety               | https://pg.postmd.utoronto.ca/wp-content/uploads/2020/05/Psychological_FirstAid_HealthCare_COVID-19_Workbook_Final_2.pdf | Workbook | Strategies to enhance wellness focusing on: nutrition, breathing, stretching, relaxation, sensory grounding, hydration, sleep, social connection, self-compassion, anxiety exercises, relationship building | physicians who are student | No |
| Anxiety               | https://www.desouzainstitute.com/wp-content/uploads/Mindfulness-Flyer.pdf | 30 min virtual mindfulness sessions offered on Mon, Tues, Wed, Thurs | Mindfulness- Drop in and learn short mindfulness practices to help keep calm in the midst of challenge. Relax, recharge, and learn how to incorporate moments of mindfulness into your day | Healthcare providers | No |
| Anxiety               | https://www.baypsychology.ca/workshops | DBT Workbook | Dialectical Behaviour Therapy (DBT) - managing feelings, skills, and emotions with tolerance | psychotherapists, social workers, physicians, and graduate level students | No |
| Anxiety               | https://www.theawakenetwork.com/free-online-meditation-resources-for-the-time-of-social-distancing/ | Awake Network | Meditation - Free Online Meditation Resources for | Healthcare Providers | Yes |

Table 1 (continued)
| Mental Health Symptom | Resources | Medium | THEME | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|-----------------------|-----------|--------|-------|------------------|----------------------------------------------------------|
| Anxiety               | [Virtual library for information about well-being, anxiety, eating and sleep](https://www.heretohelp.bc.ca/) | Virtual library for information about well-being, anxiety, eating and sleep | Self-care modules | Healthcare providers | Yes |
| Anxiety               | [A collection of text-based, audio, and video resources - partially free with limited access](https://www.calm.auckland.ac.nz/index.html) | A collection of text-based, audio, and video resources - partially free with limited access | Self-care strategies - to manage stress, depressive symptoms, anxiety, and promote resilience | Healthcare providers | No |
| Anxiety               | [Virtual online interactive modules](https://ecouch.anu.edu.au/welcome) | Virtual online interactive modules | Self-help strategies with cognitive, behavioural, and interpersonal therapies, as well as relaxation and physical activity techniques | Healthcare providers | Yes |
| Anxiety               | [Ontario Shores - All health care workers dealing with mental health challenges during this pandemic can get rapid access to a new service](https://boldly.joulecma.ca/home/managing-covid-19-stress-and-anxiety) | Ontario Shores - All health care workers dealing with mental health challenges during this pandemic can get rapid access to a new service | System Navigation - Crisis Planning - Psychoeducation - Brief individual therapy - Primary care phone consultation guidance | Health care providers | No |

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### Table 1 (continued)

| Mental Health Symptom | Resources | Medium | THEME | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|-----------------------|-----------|--------|-------|-------------------|---------------------------------------------------------------|
| Anxiety               | https://www.bigwhitewall.com/?lang=en-ca | Online community | - referral to prompt care clinic for most at risk community with online resources and conversation with practitioners | Healthcare providers | Yes |
| Anxiety               | https://www.youtube.com/watch?v=ipG3AaqhBq5k&feature=youtu.be | Youtube video | Strategies to address stress and anxiety | Healthcare providers | No |
| Anxiety               | https://anxieties.com/homepage/index#.VkV7s_7_gVc | A website with a wide variety of educational videos and self-help guides related to anxiety | Self-help guides and videos with strategies for addressing anxiety | Students | No |
| Anxiety               | https://www.google.ca/search?q=how%20to%20practice%20buddhist%20walking%20meditation&ei=8HHqXvWPEoTI_QaBh_AoA3Bd3cy13aXo&aamp;oq=ow%20to%20practice%20buddist%20walking%20meditation&gs_lcp=CgZwc3ktYWIQARgAMggIIRAEWBoQHJo4CAAQRm6BQgAEjMBQglADzECAAQJ0oECAQLFioCAQAFBxM46BgAEBYQHjo4CAAQORaCgoUABAIeAQDCAcUUYBWQoYINaxepAhgAOGbAVgBixySAQISxM4yMQgBARMDAoBd2d3cy13aXo&aamp;client=psy-ab#kpvalbx=-_XHqXpxgtu0BqDisogD32 | Online video | Meditation - practice Buddhist Walking Meditation | Healthcare providers | No |
| Anxiety               | https://www.camh.ca/en/health-info/mental-health-and-covid-19/coping-with-stress-and-anxiety | Website | Coping strategies and personal assessment tools to help manage stress and anxiety | Healthcare providers | Yes |
| Anxiety               | https://moodgym.com.au/ | Website | Self-directed, interactive cognitive behavioural therapy program | Healthcare providers | Yes |
| Anxiety               | https://pg.postmd.utoronto.ca/wp-content/uploads/2020/04/RESOURCES_CAMH-Mental-Health-and-the-COVID_20Mar31.pdf | FACT sheet | Strategies for addressing mental health and stigma | Physicians who are student | No |
| Anxiety               | https://bouncebackontario.ca/ | Website | Self-care - skill building activities | Healthcare providers | Yes |
| Anxiety               | https://mindfulnessexercises.com/free-online-mindfulness-courses/ | Free online mindfulness exercises | Mindfulness Exercises | Healthcare providers | No |
| Anxiety               | https://apps.apple.com/ca/app/breathe2relax/id425720246 | Free app that provides detailed info on stress | evidence-based exercise to help you breathe to reduce stress levels | Healthcare providers | No |
| Insomnia              | https://www.headspace.com/ | App for sleep, meditation, and relaxation - partially free with limited access | Guided Meditations - tools and resources to look after the mind | Healthcare providers | Yes |
| Insomnia              | https://www.headspace.com/ | Single PDF document | Sleep strategies | Physician | No |
| Insomnia              | https://www.wysa.io/ | Headspace - provides access to hundreds of online resources - partially free with limited access | Friendly chats, tailored tools and exercises | Healthcare providers | Yes |
| Insomnia              | https://www.calm.com/ | App for sleep, meditation, and relaxation - partially free with limited access | Meditate - Learn the life-changing skill of meditation; Sleep | Healthcare providers | No |
| Mental Health Symptom | Resources | Medium | THEME | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|----------------------|-----------|--------|-------|-------------------|---------------------------------------------------------------|
| insomnia             | https://www.baypsychology.ca/workshops | DBT Workbook | Dialectical Behaviour - managing feelings, skills, and emotions with tolerance | psychotherapists, social workers, physicians, and graduate level students | No |
| insomnia             | https://www.heretohelp.bc.ca/ | Virtual library for information about well-being, anxiety, eating and sleep | Self-care modules | Healthcare providers | Yes |
| insomnia             | https://buddhify.com/ | App to address sleep and stress | Meditation and Mindfulness exercises | Healthcare providers | Yes |
| insomnia             | https://mysleepwell.ca/ | Virtual information to help sleep better. Provides access to books, apps, tools, planners, diaries, checklists, quizzes, sleep calculators | Relaxation, thoughts, and hygiene exercises | Healthcare providers | Yes |
| insomnia             | https://insighttimer.com/ | App and online community for meditation - partially free with limited access | Meditation, Music, and talks posted by contributing experts | Healthcare Providers | Yes |
| insomnia             | https://justgetflux.com/ | Free downloadable computer software to adjust lighting | Modification of light dependent on time of day to assist with sleep | Healthcare providers | No |
| insomnia             | https://medical.mit.edu/sites/default/files/BedtimeMeditation.mp3 | Audio recording of meditation to help with sleep | Meditation | Healthcare providers | No |
| insomnia             | https://pg.postmd.utoronto.ca/wp-content/uploads/2020/04/RESOURCES_CAMH-Mental-Health-and-the-COVID_20Mar31.pdf | Print and audio downloads for sleep resources | Strategies for addressing mental health and stigma | Physicians who are student | Yes |
| insomnia             | https://medical.mit.edu/community/sleep/resources | Audio recording of Yoga session | Mindfulness | Physician | No |
| well-being           | https://bb13178a-5cf6-4d5b-950e-8d7723740e07.filesusr.com/ugd/021036_d36f9fbb57e14296a38fe4b9d7493ef.pdf?index=true | Single PDF document | Yoga | Healthcare providers | No |
| well-being           | https://bb13178a-5cf6-4d5b-950e-8d7723740e07.filesusr.com/ugd/021036_2a7949ea8f4f461832d38c5f9372efc3.pdf?index=true | Single PDF document | Strategies to promote wellness | Physician | No |
| well-being           | https://bb13178a-5cf6-4d5b-950e-8d7723740e07.filesusr.com/ugd/021036_dae21e39f59147bf182c270d108c9c.pdf?index=true | Single PDF document | Strategies to enhance normalcy | Physician | No |
| well-being           | https://www.headspace.com/ | Headspace - provides access to hundreds of online resources - partially free with limited access | Guided Meditations - tools and resources to look after the mind | Healthcare providers | Yes |
| Mental Health Symptom | Resources                                                                 | Medium                  | THEME                              | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|----------------------|---------------------------------------------------------------------------|-------------------------|------------------------------------|-------------------|---------------------------------------------------------------|
| well-being           | https://my.happify.com/                                                  | Happify- single destination for effective, evidence-based solutions for better mental health | Meditations and online resources - partially free with limited access | Healthcare providers | Yes                                                                 |
| well-being           | https://www.desouzainstitute.com/2020/03/24/4307/                        | Weekly virtual psychological support groups and 30-min virtual mindfulness groups | Support groups | Healthcare providers | No                                                                 |
| well-being           | https://www.wysa.io/                                                     | Wysa-keeps track of your mood with friendly chats and helps you fight stress and anxiety with tailored tools and exercises | Friendly chats, tailored tools and exercises | Healthcare providers | Yes                                                                 |
| well-being           | https://www.calm.com/                                                    | App for sleep, meditation, and relaxation - partially free with limited access | Meditate - Learn the life-changing skill of meditation; Sleep - Get more restful sleep and wake up feeling refreshed; Music - Exclusive music to help you focus, relax, sleep; Body - Video lessons on mindful movement and gentle stretching; Masterclass - Audio programs taught by world-renowned mindfulness experts; Scenes Nature scenes and sounds to enjoy while relaxing, sleeping, working or studying | Healthcare providers | No                                                                 |
| well-being           | https://medical.mit.edu/sites/default/files/energize.mp3                 | Audio-recording         | Deep Breathing - revive and energize yourself | Healthcare providers | No                                                                 |
| well-being           | https://pg.postmd.utoronto.ca/wp-content/uploads/2020/04/RESOURCES_Managing-Stress-w-COVID-19-.pdf | PDF document            | Written document for Self-Care tips during and after the outbreak | physicians who are student | No                                                                 |
| well-being           | https://www.desouzainstitute.com/wp-content/uploads/Mindfulness-Flyer.pdf | 30 min virtual mindfulness sessions offered on Mon, Tues, Wed, Thurs | Mindfulness- Drop in and learn short mindfulness practices to help find calm in the midst of challenge. Relax, recharge, and learn how to incorporate moments of mindfulness into your day | Healthcare providers | No                                                                 |
| well-being           | https://pg.postmd.utoronto.ca/wp-content/uploads/2020/04/FACT-SHEET_Buddy-system_20mar31.pdf | PDF Fact Sheet          | Uses the Buddy System to foster the sharing of responsibilities of well-being, safety, and active support | physicians who are student | No                                                                 |
| well-being           | https://mentalhealth-covid.ca/                                           | Free online course      | Three-hour training uses case scenarios, activities, tip sheets, and reflective journals to equip frontline workers with tools and approaches to address mental health | Healthcare providers | No                                                                 |
| Mental Health Symptom | Resources | Medium | THEME | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|-----------------------|-----------|--------|-------|------------------|----------------------------------------------------------|
| well-being            | https://www.dcogt.com/ | Virtual telephone support | concerns in the context of a pandemic | Trained volunteer responders provide confidential emotional support and crisis intervention through the phone to at-risk and vulnerable individuals from across the GTA, 24-hours a day, seven days a week. | Healthcare providers | No |
| well-being            | https://www.pause4providers.com/ | Virtual support | Mindfulness | Healthcare providers psychotherapists, social workers, physicians, and graduate level students | Yes | No |
| well-being            | https://www.baypsychology.ca/workshops | DBT Workbook | Dialectical Behaviour Therapy (DBT) - managing feelings, skills, and emotions with tolerance | Provides skills and resources | No |
| well-being            | https://www.pause4providers.com/ | Virtual support | Counselling | Healthcare providers | Yes | No |
| well-being            | https://wellness.mcmaster.ca/app/uploads/2020/04/Online-Resources-for-Mental-Wellness-and-Social-Connection.pdf | Online education and capacity | Apps to help with increasing social connection; promoting mental wellness; online resources for mental health; and tips for managing mental health | Healthcare providers who are students | No |
| well-being            | https://www.heretohelp.bc.ca/ | Virtual library for information about well-being, anxiety, eating and sleep | Self-care modules | Healthcare providers | Yes |
| well-being            | https://www.cma.ca/maintaining-wellness-during-pandemic | CMA Website - wellness tips during the pandemic | Maintaining wellness through self-care | Physicians | No |
| well-being            | https://www.ryerson.ca/content/dam/thriveRU/resources/Seven%20Tips%20for%20Success%20at%20University.pdf | A PDF which outlines 7 tips for success at university | Self-care guide | Healthcare providers who are students | No |
| well-being            | https://www.ryerson.ca/content/dam/thriveRU/resources/ThriveRU-WorkBook-Fillable.pdf | A PDF workbook for weekly exercises to manage challenges and cultivate one’s well-being | Calendar workbook - self-care guide | Healthcare providers who are students | No |
| well-being            | https://www.ryerson.ca/content/dam/thriveRU/resources/SAThriveRU-Cards-web.pdf | A PDF with resilience flashcards that deal with skills for a healthy life, specific problems, situations, or areas of development | Self-care guide | Healthcare providers who are students | No |
| well-being            | https://soundcloud.com/user-743147355-683744593/sets/thriveRU-meditation-recordings | A collection of recordings for meditations - linguistically and culturally matched licensed clinicians | Meditation | Healthcare providers | Yes |
| well-being            | Keep.meSAFE | Online video | Student Support Program - promoting early intervention and 24/7 access to mental health support | Healthcare providers who are students | Yes |

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| Mental Health Symptom | Resources | Medium | THEME | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|-----------------------|-----------|--------|-------|-------------------|---------------------------------------------------------------|
| well-being            | AIEA0QChAeUJYBWlyTINaAfpAwhdAqgBAYgBixy5AQxM4yMpgBAKAB AaoI8E2dXy13Aoxa&client=psy-ab#kpvalbx=-_XHqXplxgufo8qDnogDo2 https://boldly.joulecma.ca/home/managing-covid-19-stress-and-anxiety Website - Online information | Self-care guide Healthcare providers | - System Navigation  - Crisis Planning  - Psychoeducation  - Brief individual therapy  - Primary care phone consultation guidance  - Referral to prompt care clinic for most at risk | Health care providers | No |
| well-being            | https://good2talk.ca/about/ | Counselling and referrals | A free, confidential support service to talk to a professional counsellor and also receive referrals Healthcare providers | Yes |
| well-being            | https://bouncebackontario.ca/ | Website | Self-care - skill building activities | Healthcare providers | Yes |
| well-being            | https://www.youtube.com/watch?v=Rke7vJ0Z2HU&feature=youtu.be | Video for how to cope with COVID-19 | Three steps to coping with COVID-19 - Problem, Emotion, Meaning Recipes and meal planner | Healthcare providers | No |
| well-being            | http://www.cookspiration.com/ | An application for cooking based on mood and time of day | | Healthcare providers | Yes |
| well-being            | https://www.theawakenetwork.com/free-online-meditation-resources-for-the-time-of-social-distancing/ | Awake Network | Meditation - Free Online Meditation Resources for Times of Social Distancing/COVID-19 | Healthcare Providers | Yes |
| well-being            | https://www.bigrwhitewall.com/?lang=en-ca | Online community | Online peer support community with online resources and conversation with practitioners | Healthcare providers | Yes |
| well-being            | https://mindfulnessexercises.com/free-online-mindfulness-courses/ | Free online mindfulness exercises | Mindfulness Exercises | Healthcare providers | No |
| well-being            | https://www.youtube.com/playlist?list=PLPbDo1Dse11w1d35YNcO9cm07TFDi8k | Collection of Youtube videos Virtual resources for taking care of your behavioural health | Yoga Tips for Social Distancing, Quarantine, and Isolation During an Infectious Disease Outbreak | Healthcare providers | No |
| well-being            | https://www.doyogawithme.com/ | Video - learn skills for fitness and wellness goals - $20 charge | Yoga Yoga, meditation, and fitness | Healthcare providers | No |
| well-being            | https://www.alomoves.com/ | Live and recorded videos, along with blogs, to improve fitness - reduced fee | Yoga and exercise | Healthcare providers | No |
| well-being            | https://www.obefitness.com/how-it-works | Virtual tour of Monterey Bay Aquarium | Live sightseeing attractions | Healthcare providers | No |
| well-being            | https://www.montereybayaquarium.org/animals/live-cams | Virtual tour of San Diego Zoo Aquarium | Live sightseeing attractions | Healthcare providers | No |
| well-being            | https://www.lifecycles rallied.ie/ | Virtual tour of the Cliffs of Moher in Ireland | Live sightseeing attractions | Healthcare providers | No |
| well-being            | https://www.virtualvisittours.com/blarney-castle/ | Virtual tour of Blarney Castle in Ireland | Live sightseeing attractions | Healthcare providers | No |

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| Mental Health Symptom | Resources | Medium | THEME | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|-----------------------|-----------|--------|-------|-------------------|-------------------------------------------------|
|                      | https://www.google.com/maps/@28.418732,-81.581306,3a,75y,214.73h,104.64/data=13e191e13m71ix835W4-883-07hbpVCA2e0f7i133128a4656!9n211h11s50 | Virtual tour through Google Street View of Magic Kingdom Park |          |                   | No                                                                 |
| well-being            | https://www.google.com/maps/@28.3691793,-81.5526231,2a,75y,271.42h,110.06/data=13m61e13m41sLpUWV082JowNR5snw12e0f7i133128a4656 | Virtual tour through Google Street View of Epcot |          |                   | No                                                                 |
| well-being            | https://www.google.com/maps/@28.3593933,-81.5605846,2a,75y,271.42h,110.06/data=13m61e13m41sLpUWV082JowNR5snw12e0f7i133128a4656 | Virtual tour through Google Street View of Disney’s Hollywood Studios |          |                   | No                                                                 |
| well-being            | https://artsandculture.withgoogle.com/en-us/national-parks-service/parks | Virtual tour of The Hidden Worlds of The Natural Parks |          |                   | No                                                                 |
| well-being            | https://www.metopera.org/user-information/nightly-met-opera-streams/ | Virtual tour of Nightly Opera Streams by the Met opera |          |                   | No                                                                 |
| well-being            | https://www.broadwayhd.com/ | Virtual tour of Broadway tunes |          |                   | No                                                                 |
| well-being            | https://artsandculture.google.com/story/1gjwzQlFlFeJA | Virtual tour dramatic stages around the world |          |                   | No                                                                 |
| well-being            | 10 Museums You Can Explore Right Here, Right Now | Virtual tour of 10 Museums from around the world |          |                   | No                                                                 |
| well-being            | https://www.virusanxiety.com/ | A website and app by Shine - articles, meditations, mindfulness, expert connections, relaxation exercises |          |                   | Yes                                                                 |
| well-being            | http://www.camh.ca/-/media/images/all-other-images/covid-19-professionals/tidesinfocheetsmanagement-pd.pdf?la=en&amp;hash=12B5070B7D77A2EBA172F2AB8983A94B5853C1E4 | Online PDF |          |                   | Yes                                                                 |
| well-being            | https://medical.mit.edu/sites/default/files/progressive_relaxation.mp3 | Audio recording of progressive relaxation meditation exercises |          |                   | No                                                                 |
| well-being            | https://ephysicianhealth.com/ | Virtual podcasts and modules for mental health, weight, nutrition, and fitness |          |                   | No                                                                 |
| physical function     | https://www.headspace.com/ | Headspace - provides access to hundreds of online resources - partially free with limited access |          |                   | Yes                                                                 |
| physical function     | https://my.happify.com/ | Happify- single destination for effective, evidence-based solutions for better mental health |          |                   | Yes                                                                 |
| physical function     | https://www.calm.com/ | App for sleep, meditation, and relaxation - partially free with limited access |          |                   | No                                                                 |
| Mental Health Symptom | Resources | Medium | THEME | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|-----------------------|-----------|--------|-------|-------------------|------------------------------------------------------------|
| physical function     | https://www.baypsychology.ca/workshops | DBT Workbook | Video lessons on mindful movement and gentle stretching; **Masterclass** - Audio programs taught by world-renowned mindfulness experts; **Scenes** - Nature scenes and sounds to enjoy while relaxing, sleeping, working or studying | psychotherapists, social workers, physicians, and graduate level students | No |
| physical function     | https://www.corepoweryogaondemand.com/keep-up-your-practice?fbclid=IwAR3-T4e6v518752RKVb/hZlgHxAbvhSm64znFzPbq750ppR3B9rziAzfHA | Collection of free online videos | Yoga | Healthcare providers | No |
| physical function     | https://www.youtube.com/user/yogawithadriene/featured | A collection of yoga videos | Yoga | Healthcare providers | No |
| physical function     | https://apps.apple.com/ca/app/calorie-counter-diet-tracker/id341232718 | An application for fitness and nutrition | Recipes and meal planner | Healthcare providers | Yes |
| physical function     | https://www.cookspiration.com/ | Virtual podcasts and modules for mental health, weight, nutrition, and fitness | eLearning modules for self-care with mental and physical health | Physicians and medical students | No |
| physical function     | https://www.hertohelp.bc.ca/ | Virtual library for information about well-being, anxiety, eating and sleep | Self-care modules | Healthcare providers | Yes |
| physical function     | https://www.youtube.com/playlist?list=PLA111CD25D710702 | Collection of YouTube videos | Yoga | Healthcare providers | No |
| physical function     | https://www.youtube.com/playlist?list=PLPdBo1Dxei1w1d35Ync09cm07TfFDie8k | Collection of YouTube videos | Yoga | Healthcare providers | No |
| physical function     | https://www.doyogawithme.com/ | Body workout and training video exercises | Exercise training | Healthcare providers | No |
| physical function     | https://www.youtube.com/playlist?list=PLPdBo1Dxei1xWqslav1BMyEyi33YinDSho | Running videos | Exercise - Running Yoga, meditation, and fitness | Healthcare providers | No |
| physical function     | https://www.alomoves.com/ | Videos - learn skills for fitness and wellness goals - $20 charge | Yoga and exercise | Healthcare providers | No |
| physical function     | https://www.obefitness.com/how-it-works | Live and recorded videos, along with blogs, to improve fitness - reduced fee | Yoga and exercise | Healthcare providers | No |
| physical function     | https://www.orangetheory.com/en-us/athome/#open-modal | Video | Exercise | Healthcare providers | No |
| physical function     | https://watch.lesmillsondemand.com/at-home-workouts | Video - workouts | Exercise | Healthcare providers | No |
| Physical function     | https://www.fitnessblender.com/videos | Video recordings for workouts | Exercise | Healthcare providers | No |
| Physical function     | https://ecouch.anu.edu.au/welcome | Virtual online interactive modules | Self-help strategies with cognitive, behavioural, and interpersonal therapies, as well as relaxation and physical activity techniques | Healthcare providers | Yes |
| resilience            | https://bb31a78a-5cf6-4d5b-950e-8d7723740e07.filesusr.com/ugd/021036_d36f9fbb37e14296a38fe4bf7d4939ef.pdf?index=true | PDF document | Guided Meditations - tools and resources to look after the mind | Healthcare providers | Yes |
| resilience            | https://www.headspace.com/ | Headspace - provides access to hundreds of online | | | |

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| Mental Health Symptom | Resources | Medium | THEME | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|-----------------------|-----------|--------|-------|-------------------|-------------------------------------------------------------|
| resilience            | https://my.happify.com/ | resources - partially free with limited access | Meditations and online resources - partially free with limited access | Healthcare providers | Yes |
| resilience            | https://www.wysa.io/ | Wysa-keeps track of your mood with friendly chats and helps you fight stress and anxiety with tailored tools and exercises | Friendly chats, tailored tools and exercises | Healthcare providers | Yes |
| resilience            | https://camb.echoontario.ca/echo-coping-with-covid/ | virtual education and capacity - building program | provides skills and resources | Healthcare providers | Yes |
| resilience            | https://www.desouzainstitute.com/2020/03/24/4307/ | Weekly virtual psychological support groups and 30-min virtual mindfulness groups | Support groups | Healthcare providers | No |
| resilience            | https://www.calm.com/ | App for sleep, meditation, and relaxation - partially free with limited access | Meditate - Learn the life-changing skill of meditation; Sleep - Get more restful sleep and wake up feeling refreshed; Music - Exclusive music to help you focus, relax, sleep; Body - Video lessons on mindful movement and gentle stretching; Masterclass - Audio programs taught by world-renowned mindfulness experts; Scenes Nature scenes and sounds to enjoy while relaxing, sleeping, working or studying | Healthcare providers | No |
| resilience            | https://drive.google.com/file/d/1M7g7h2V7DY5xJ0b1HbZCyIrWiZstGfI/view?fbclid=IwAR2S3DUJuoGX34mZ87GzAn4yU2qQuIM2t-8k8IMInjx9TIU3-xzzxBl77f | PDF Document | Strategies for maintaining good mental hygiene | Healthcare providers | No |
| resilience            | https://pg.postmd.utoronto.ca/wp-content/uploads/2020/04/Psychological_FirstAid_HealthCare_COVID-19_Workbook_Final_2.pdf | Workbook | Written document for Self-Care tips during and after the outbreak - System Navigation - Crisis Planning - Psychoeducation - Brief individual therapy - Primary care phone consultation guidance - referral to prompt care clinic for most at risk | Health care providers | No |
| resilience            | https://pg.postmd.utoronto.ca/wp-content/uploads/2020/05/RESOURCES_Managing-Stress-w-COVID-19-.pdf | Workbook | Strategies to enhance wellness focusing on: nutrition, breathing, stretching, relaxation, sensory grounding, hydration, sleep, social connection, self | physicians who are student | No |

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| Mental Health Symptom | Resources | Medium | THEME | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|-----------------------|-----------|--------|-------|-------------------|---------------------------------------------------------------|
| resilience            | [Link](https://www.desouzainstitute.com/wp-content/uploads/Mindfulness-Flyer.pdf) | 30 min virtual mindfulness sessions offered on Mon, Tues, Wed, Thurs | Mindfulness- Drop in and learn short mindfulness practices to help find calm in the midst of challenge. Relax, recharge, and learn how to incorporate moments of mindfulness into your day | Healthcare providers | No |
| resilience            | [Link](http://www.camh.ca/-/media/images/all-other-images/covid-19-professionals/tidesinfosheets/management-pdf.pdf?la=en&坎h=128507d87d79AAB8f2AB988fA94b585C1E4) | Online PDF | Strategies for well-being and resilience | Healthcare providers | No |
| resilience            | [Link](https://pg.postmd.utoronto.ca/wp-content/uploads/2020/04/TIPS_Keeping-health-y-w-COVID-19_20mar31.pdf) | MD-led virtual chats and PDF document providing PDF Fact Sheet | Uses the Buddy System to foster the sharing of responsibilities of well-being, safety, and active support | Physicians who are students | No |
| resilience            | [Link](https://pg.postmd.utoronto.ca/wp-content/uploads/2020/04/FACT-SHEET_Buddy-system_20mar31.pdf) | PDF Fact Sheet | Dialectical Behaviour Therapy (DBT) - managing feelings, skills, and emotions with tolerance | Psychotherapists, social workers, physicians, and graduate level students | No |
| resilience            | [Link](https://www.baypsychology.ca/workshops) | DBT Workbook | Cognitive Behavioural Therapy (CBT)- based text messages written by health mental health professionals | Healthcare providers | Yes |
| resilience            | [Link](https://www.albertahealthservices.ca/topics/Page17019.aspx) | Text4Hope - free service providing three months of daily CBT | Cognitive Behavioural Therapy (CBT)- based text messages written by health mental health professionals | Healthcare providers | No |
| resilience            | [Link](https://thereworkingmind.ca/sites/default/files/twm_self-care-resilience-guide.pdf) | A PDF document with external resources linked | Self-care | Healthcare providers | No |
| resilience            | [Link](https://e.physicianhealth.com/) | Virtual podcasts and modules for mental health, weight, nutrition, and fitness | Self-care | Physicians and medical students | No |
| resilience            | [Link](https://www.calm.auckland.ac.nz/index.html) | A collection of text-based, audio, and video resources - partially free with limited access | Computer assisted learning self-care strategies - to manage stress, depressive symptoms, anxiety, and promote resilience | Healthcare providers | No |
| resilience            | [Link](https://cdn.dal.ca/content/dam/dalhousie/pdf/faculty/medicine/departments/core-units/resident-affairs/The%20Basics%20Strategies%20for%20Coping%20with%20Stress%20and%20Building%20Resilience.pdf) | PDF document outlining Basics Strategies for coping with stress & building resilience for mental health support | Self-care guide | Physicians | No |
| resilience            | [Link](https://www.ryerson.ca/content/dam/thriveRU/resources/10%20tips%20for%20resilience.pdf) | A PDF on 10 tips for resilience | Self-care | Healthcare providers | No |
| resilience            | [Link](https://www.ryerson.ca/content/dam/thriveRU/resources/SAThriveRU-Cards-web.pdf) | A PDF with resilience flashcards that deal with skills for a healthy life, specific problems, situation, or areas of development | Self-care | Healthcare providers | No |
| resilience            | [Link](https://www.google.ca/search?source=hp&amp;ei=BHqHqXVPcEToTkQaBh6kQAg&amp;q=how+to+practice+buddhist+walking+me) | Online video | Meditation - practice Buddhist Walking Meditation | Healthcare providers | No |

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| Mental Health Symptom | Resources | Medium | THEME | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|----------------------|-----------|--------|-------|-------------------|-------------------------------------------------------------|
| resilience           | OgIADoECAAQJdeECAAQDToI/CAAQFhAEB46BggAEBYHjogCAAQDRaOgolAB AiEADQChKxUW8VrfX/1AfVbloAgC6oB6s86XAU0xM4yMpgbIAKAB An082de3cy13aXokampxclient~py-sub#9pvallm~... XHqNpNqru8EqDsaogj1032 https://www.youtube.com/watch?v=-iIk2v0ZZ2HU&feature=youtu.be | Video for how to cope with COVID-19 | Three steps to coping with COVID-19 - Problem, Emotion, Meaning | Healthcare providers | No |
| resilience           | https://www.thawakenetwork.com/free-online-meditation-resources-for-the-time-of-social-distancing/ | Awake Network | Meditation - Free Online Mediation Resources for Times of Social Distancing/COVID-19 | Healthcare Providers | Yes |
| resilience           | https://wellness.mcmaster.ca/app/uploads/2020/04/Online-Resources-for-Mental-Wellness-and-Social-Connection.pdf | Online (Apps and websites) resources for social connection and mental wellness during COVID-19 | Apps to help with increasing social connection; promoting mental wellness; online resources for mental health; and tips for managing mental health | Healthcare providers | No |
| resilience           | https://mindfulnessexercises.com/free-online-mindfulness-courses/ | Free online mindfulness exercises | Mindfulness Exercises | Healthcare providers | No |
| resilience           | https://well.blogs.nytimes.com/2013/05/09/the-scientific-7-minute-workout/ | New York Times article | Scientific 7 min workout Counseling | Healthcare providers | No |
| resilience           | https://cpa.ca/corona-virus/psychservices/ | Free virtual counselling with psychologists | https://well.blogs.nytimes.com/2013/05/09/the-scientific-7-minute-workout/ | Healthcare providers | No |
| resilience           | https://ca.portal.gs/ | Wellness Together Canada website | Get connected to mental health and substance use support, resources, and counselling with a mental health professional | Healthcare provider | No |
| resilience           | https://www.virusanxiety.com/ | A website and app by Shine - articles, meditations, mindfulness, expert connections, relaxation exercises | Free online toolkit with resources to promote mental wellness and health | Healthcare providers | Yes |
| post-traumatic stress disorder | https://www.headspace.com/ | Headspace - provides access to hundreds of online resources - partially free with limited access | Guided Meditations - tools and resources to look after the mind | Healthcare providers | Yes |
| post-traumatic stress disorder | https://pg.postmdl.utoronto.ca/wp-content/uploads/2020/04/RESOURCES_Managing-Stress-w-COVID-19.pdf | PDF document | Written document for Self-Care tips during and after the outbreak | physicians who are students | No |
| post-traumatic stress disorder | https://apps.apple.com/ca/app/breathe2relax/id425720246 | Free app that provides detailed info on stress | evidence-based exercise to help you breathe to reduce stress levels | Healthcare providers | No |
| Post-traumatic stress disorder | https://www.veterans.gc.ca/eng/resources/stay-connected/mobile-app/ptsd-coach-canada | App | learn about and manage symptoms that can occur after trauma | Healthcare providers | No |
| depressive symptoms  | https://www.headspace.com/ | Headspace - provides access to hundreds of online resources - partially free with limited access | Guided Meditations - tools and resources to look after the mind | Healthcare providers | Yes |
| Depressive symptoms  | https://boldly.joulecma.ca/home/managing-covid-19-stress-and-anxiety Website - online information Self-care guide Healthcare providers | | | Health care providers | No |
| Mental Health Symptom | Resources | Medium | THEME | Intended audience | Evidence Based reporting or referencing of evaluation (yes, no) |
|-----------------------|-----------|--------|-------|------------------|---------------------------------------------------------------|
| depressive symptoms   | https://www.sanvello.com/ | Sanvello - provides access to online resources | Self-care, peer support, coaching, therapy | Healthcare providers | Yes |
| depressive symptoms   | https://www.wysa.io/ | Wysa- keeps track of your mood with friendly chats and helps you fight stress and anxiety with tailored tools and exercises | Friendly chats, tailored tools and exercises | Healthcare providers | Yes |
| depressive symptoms   | https://https://www.calm.com/ | App for sleep, meditation, and relaxation - partially free with limited access | Meditate - Learn the life-changing skill of meditation; Sleep - Get more restful sleep and wake up feeling refreshed; Music - Exclusive music to help you focus, relax, sleep; Body - Video lessons on mindful movement and gentle stretching; Masterclass - Audio programs taught by world-renowned mindfulness experts; Scenes - Nature scenes and sounds to enjoy while relaxing, sleeping, working or studying | Healthcare providers | No |
| depressive symptoms   | https://www.albertahealthservices.ca/topics/Page17019.aspx | Text4Hope - free service providing three months of daily CBT (the first full month is free) | Cognitive Behavioural Therapy (CBT) based text messages written by mental health therapists. | Healthcare providers -in Alberta | Yes |
| depressive symptoms   | https://https://www.youtube.com/playlist?list=PLPbDo1Dxe1ysp2ugMFNgqaHdJJH6Tpaq | Collection of guided meditation videos | Mediation | Healthcare providers | No |
| depressive symptoms   | https://https://www.betterhelp.com/helpme/?utm_source=AdWords&utm_medium=Search_PPC_campaign=1770074505&utm_match_type=exact&utm_placement=text&gclid=Cj0KCQjw-r71BRDuARIsAB7i_QPw5hsn-ai4sNg2erPpG_KZruR8rRiO3e1p8518xn5Co2BYwv7C1MaApb2EALw_wcB&not_found=1&gclid=Cj0KCQjw-r71BRDuARIsAB7i_QPw5hsn-ai4sNg2erPpG_KZruR8rRiO3e1p8518xn5Co2BYwv7C1MaApb2EALw_wcB&network=google&target=1&gclid=Cj0KCQjw-r71BRDuARIsAB7i_QPw5hsn-ai4sNg2erPpG_KZruR8rRiO3e1p8518xn5Co2BYwv7C1MaApb2EALw_wcB&not_found=1&gclid=Cj0KCQjw-r71BRDuARIsAB7i_QPw5hsn-ai4sNg2erPpG_KZruR8rRiO3e1p8518xn5Co2BYwv7C1MaApb2EALw_wcB&network=google&target=1 | Virtual counselling - free for a limited time | Therapy counselling | Healthcare providers | No |
| depressive symptoms   | https://https://www.calmauckland.ac.nz/index.html | A collection of text-based, audio, and video resources - partially free with limited access | Computer assisted learning self-care strategies - to manage stress, depressive symptoms, anxiety, and promote resilience | Healthcare providers | No |
| depressive symptoms   | https://ecouch.anu.edu.au/welcome | Self-help strategies with cognitive, behavioural, and interpersonal therapies, as well as relaxation and physical activity techniques | Self-help strategies with cognitive, behavioural, and interpersonal therapies, as well as relaxation and physical activity techniques | Healthcare providers | Yes |

(continued on next page)
stress, anxiety, and depression; are being required to navigate through arduous, time-consuming webpages in order to seek mental health resources, the act of navigating through various webpages or reading volumes of information may result in increased psychological burden leading to exacerbation of existing mental health condition and the abandonment of seeking resources. As well, in some instances, many sites were no longer active which can result in increased stress and anxiety among users.

Moreover, all academic sites provided general information about COVID-19 and strategies to reduce spread and transmission that included maintaining safe social distance, wearing a face mask, and need to wash hands frequently; however, specific mental health resources designed to address the psychological challenges associated with COVID-19 were not readily available. Instead, users were referred to existing psychological interventions which may or may not be relevant to the COVID-19 experience. Thus, users were required to filter through resources to identify relevant interventions that addressed their specific mental health concerns. This is of continued concern, as health care providers working on the frontlines and who are concurrently enrolled in post-secondary education programs may not have the time or the energy to spend reviewing or even assessing resources.

In spite of the challenges associated with accessing resources, many of the interventions that were identified addressed a number of psychological symptoms and were easy to implement. As well, even though over three quarters of the resources (i.e. webpages, applications [Apps], education material) identified, were not empirically evaluated; it was noted, following a review of the research literature that the majority of the individual mental health strategies (i.e. exercise, relaxation, meditation, etc ...) contained within the resources identified, have been evaluated on numerous occasions; and have demonstrated effectiveness in enhancing various aspects of an individual’s mental health. Meditation and mindfulness were the most common types of online psychological interventions. Both of these interventions, in addition to deep breathing, and relaxation therapy have been shown to significantly reduce overall level of psychological stress, anxiety, depression, and post-traumatic stress; while enhancing well-being and sleep (Keng et al., 2011); and thus, appears to be the two most comprehensive, well established strategies for addressing mental health challenges. Furthermore, yoga, stretching, and physical exercise (Auty et al., 2017), counselling, phone consultation, referral to clinics, peer support, dialectical behaviour therapy, cognitive behavioural therapy (Van Zyrl et al., 2020), and the use of a buddy system (Hall et al., 2018) have been shown to enhance resilience and psychological well-being. Music therapy (Son et al., 2019) has demonstrated effectiveness in reducing stress, anxiety, and depression; while self-care information, tailored tools, crisis planning, and psychoeducational interventions (Holman, Johnson, O'Connor, 2018) have demonstrated effectiveness in enhancing overall psychological wellbeing. Finally, sleep hygiene strategies have demonstrated effectiveness in enhancing sleep (Espie et al., 2016) while virtual tours have been effective in addressing stress and psychological wellbeing (Smith, 2019). The use of a sleep/assignment calculator and brief individual therapy appear to be the only two psychological interventions that have not been evaluated within the empirical literature.

Lastly, many of the psychological interventions that are offered using App based technology (i.e. calm, headspace, happily, insight times, mylife) were advertised on their homepage as being free of charge, however, after scrolling through the various Apps, it became apparent that a basic version with limited functionality was being provided free of charge. Access to the more in-depth version of the resource required payment on a monthly basis. This expense may add to existing levels of psychological distress.

In terms of limitations, since the reviewers did not have institutional access to all clinical/academic internally facing intranet sites, they were not aware of current intervention studies addressing stress/fatigue/wellbeing and thus, may have excluded potentially relevant sources of information.
workday. Visual imagery to promote calm, and reduce stress throughout the day. Encouraging breaks and relaxation while at work; or sending emails messages with mindfulness information. Disseminating posters, creating a meditation or yoga space for FLHCP to use while on break; or providing a quiet space for FLHCP to use to practice mindfulness or yoga. Creating and implementing evidence informed mental health resources, as this will have a positive effect on their overall mental health, thus, likely increase work performance, reduce sick time, while enhancing patient outcomes. Research implications

4.1.1. Research implications

Based on the findings from this rapid review it appears under a quarter of the mental health resources listed were rigorously evaluated and found to be effective in obtaining desired results. However, the translation of this evidence into the real world and examination of these interventions under unique/novel circumstances have not been evaluated. That is, the evaluation of these interventions in the context of COVID-19 have not been conducted. Also, determining the comparative effectiveness of these interventions, as implemented in the real world have yet to be examined. Thus, the empirical evidence that was reported in research studies needs to be moved to the bedside to determine whether or not the interventions that were found to be effective are indeed clinically meaningful. That is, the actual extent of psychological change is in fact meaningful to individuals, whether this change makes a real difference in their lives, how long the effects of the change lasts, whether the change is deemed acceptable, the cost effectiveness of the change and the psychological intervention, and ease of implementation of recommended strategy (Sekhon et al., 2017). Furthermore, evaluating the effectiveness of these interventions and the various delivery methods for various categories of health care providers who are students should also be considered.

4.1.2. Clinical implications

Clinically, healthcare organizations should consider actively promoting evidence informed mental health resources, as this will encourage FLHCP to use resources which may ultimately produce a positive effect on their overall mental health, thus, likely increase work performance, reduce sick time, while enhancing patient outcomes. Ensuring these resources are available through local employee assistance programs is one approach employers can use to increase access and promote use of these resources, while maintaining employee confidentiality.

Health care organizations can also consider applying some of the recommended strategies into the clinical setting. For example, creating a meditation or yoga space for FLHCP to use while on break; creating and disseminating posters, flyers, and/or brochures that promote deep breathing and relaxation while at work; or sending emails messages with visual imagery to promote calm, and reduce stress throughout the workday.

Additionally, health care organizations can consider cataloging available resources in easy to find and navigate, dedicated spaces on their intranet sites, and possibly formally partnering or subscribing to certain high quality apps or on-line programs to increase visibility and usage of mental health supports.

5. Conclusions

There is increase awareness in terms of the need for mental health resources for FLHCP who are concurrently enrolled in a university program. Even though a significant number of mental health resources are available, it is unclear if the listed strategies are evidence-based. The purpose of this rapid review was to determine which of the strategies or therapies presented among the resources were evidence-based, thus, having the potential to benefit this cohort. Over one hundred mental health online resources were identified; however approximately, less than a quarter were developed based on evidence or were empirically evaluated. Continued evaluation of online mental health resources is required, as well as the need to determine the effectiveness of these resources within the context of COVID-19. For those resources that have been evaluated, it is suggested that healthcare organizations work towards increasing the awareness of these resources and consider integrating many of the recommended mental health strategies into the healthcare work environment to mitigate staff shortages, reduce sick time, and enhance patient outcomes.

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Declaration of competing interest

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Appendix A. Supplementary data

Supplementary data related to this article can be found at https://doi.org/10.1016/j.bbih.2020.100171.
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