

KEY ISSUES: Impact of COVID-19 Pandemic on the Behavioral Health of Ohio's Residents

LITERATURE REVIEW

Behavioral health problems are among the most commonly experienced adverse health effects of a pandemic, and demand for services historically increases during a crisis. Almost everyone in the community where an infectious outbreak occurs will feel some type of emotional effect as general anxiety increases with fear of contamination and death, financial instability and loss, lifestyle changes, and uncertain futures. Difficulty in coping with pandemic-related events can lead to confusion, panic, anxiety, depression, hopelessness, loneliness, despair, and grief. Startling evidence of widespread distress among U.S. citizens can be seen in the nine-fold increase in March 2020 in the number of calls to the Disaster Distress Hotline reported by the Substance Abuse and Mental Health Services Administration (SAMHSA).¹

According to the United States Centers for Disease Control and Prevention (CDC), limiting face-to-face contact with others is the best way to reduce the spread of coronavirus disease 2019 (COVID-19). Research has linked social isolation which may be experienced by many during a pandemic, to poor physical and behavioral health.^{2,3} A review of the research on quarantine reported a high prevalence of symptoms of psychological distress and disorder, including emotional disturbance, depression, low mood, irritability, insomnia, post-traumatic stress symptoms, anger, and sleep difficulties.³ A recent Kaiser Family Foundation COVID-19 tracking poll found 21% of those sheltering in place reported major negative mental health effects resulting from worry or stress. This rate was significantly higher than the 13% of people not sheltering in place who reported major negative mental health impacts from the experience.⁴ Social isolation is a risk factor for relapse, and social connection is crucial for persons recovering from a substance use disorder. A widely accepted tenet of addiction recovery is that loneliness and disconnection are doorways to addiction. People who are isolated and stressed frequently turn to substances to self-medicate and alleviate their negative feelings. Because of the isolation and disconnection associated with mitigation measures necessary to control the coronavirus contagion, Ohio is likely to see more new people suffering from addiction and more people who have dropped out of treatment and relapsed.⁵



For many Ohio residents, the COVID-19 pandemic will have severe and long-lasting impacts on behavioral health, as it is likely to be experienced as a sustained, traumatic event. According to Nielsen data, retail alcohol sales currently are "soaring," with online sales up 55% during the first two weeks of March.6 Many people use alcohol and other drugs to ease stress and do not experience adverse effects, but for some individuals, increased substance use leads to substance use disorders. Before the advent of the COVID-19 pandemic, the opioid epidemic was taking the lives of hundreds of U.S. citizens each day. Although it is too early to properly evaluate public health data on opiate drug overdoses, anecdotal evidence from hotspots with comorbid coronavirus and opiate epidemics point to a disturbing rise in overdose deaths.⁷ Infectious disease epidemics are known to disproportionately ef-fect individuals of low socio-economic status and marginalized groups such as individuals with medical and psychiatric conditions.8 People with both treated and untreated behavioral health disorders are at higher risk of contracting COVID-19 as well as experiencing relapse or a worsening of symptoms.⁹ For those with histories of trauma, symptoms may be heightened as they re-experience intrusive and distressing memories, nightmares, or changes in thoughts and mood as a consequence of pandemic-related stress. Between mid-February and mid-March 2020—a period when public awareness of the COVID-19 pandemic in the United States came into full view, prescriptions for anti-anxiety medications rose 34.1%, and increased for antidepressants (18.6%) and anti-insomnia drugs $(14.8\%).^{10}$

The pandemic is also expected to have a disproportionate effect on family violence victims. As families experience the stress of unemployment, reduced income, and limited resources in addition to an increase in alcohol abuse— all known risk factors for family violence— some hotlines are reporting an increased number of calls from family violence victims. Reports of a significant increase in gun sales in the U.S. during March 2020 are particularly concerning given the link between access to firearms and incidence of fatal domestic and community violence. But the strongest evidence for the disparate impact of pandemic mitigation strategies on families at risk for violence is found in the research on past disasters with similarities to the COVID-19 epidemic. Studies that have looked at the impact of unemployment and income loss during the Great Recession of 2007-2009 found a 10% to 12% increase in intimate partner violence.

Communities of color historically have had less access than white individuals to behavioral health services and were less likely to receive needed care. Compared to 37.6% of white individuals, only 22.4% of Latinos and 25% of African Americans receive treatment among adults needing mental health or substance abuse services. With the disproportionate impact of COVID-19 on minority communities, we are facing the likelihood of more African Americans and Latinos needing behavioral health treatment from a system with longstanding disparities in access. Culturally appropriate education for providers is important, as is outreach to communities of color to better understand behavioral health disease management. For example, African American and Latina women are less likely to perceive a need for depression treatment than white women. Educating minority patients impacted by COVID-19 about behavioral health and available services could help reduce access disparities.



Because children are dependent on others for food, shelter, safety, and transportation, they are especially vulnerable to the situation-induced distress of the COVID-19 pandemic. School closures have disrupted millions of students' daily functioning, and stress levels have risen in families when parents are not able to work or family members are ill. Witnessing the loss of loved ones to the disease and the cancellation of rituals and traditions that help families cope with illness and death can further expose children to poor behavioral health outcomes. In surveys conducted prior to the current pandemic, between 12% and 14% of adolescents aged 12 to 17 were estimated to have anxiety and depression or to use illicit drugs, putting them at higher risk for negative impacts related to pandemic-related disruptions.¹⁸

A consistent finding of the research on disasters is the relationship between the intensity of exposure to disruptive events and the development or exacerbation of behavioral health disorders in the exposed population.¹⁹ Gravely ill patients who survive COVID-19 infections and front-line health and safety workers are two groups that experience highly intense exposure to pandemic-related events. Poor mental health and functional disability is common in patients who experience a critical illness, where depression is five times more common than is post-traumatic distress disorder.²⁰ Behavioral health interventions need to address major depressive disorder and grief in addition to post-traumatic stress disorder (PTSD), not only among survivors of a disaster experience but also the front-line workers. Research on the impact of epidemics on health and other front-line workers is limited, but there is evidence of acute stress disorder among health care workers in the SARS epidemic, and disaster studies suggest a high risk of PTSD in general for front-line workers.²¹

A report of suicide by a New York doctor treating COVID-19 patients underscores the psychiatric vulnerability of health care workers.²² Research on the impact of epidemics on suicide is also limited, but there is reason to believe suicide rates will rise as the pandemic spreads and has long-term effects on vulnerable groups in the general population. Suicide prevention experts cite some evidence of increased death by suicide in the United States during the 1918-19 influenza pandemic and among older adults in Hong Kong during the 2003 SARS outbreak.²³ Studies that have looked at the relationship between suicide and disasters suggest that suicidal ideation, plans, and attempts are more likely to start to occur several months after a disaster, rather than immediately after it.²⁴ Social isolation, bereavement, loss of employment, and financial stress are well-established suicide risk factors; therefore, it is prudent to closely monitor the community and increase screening of new and established patients for increased suicidality as a consequence of the COVID-19 pandemic.

OHIO'S BEHAVIORAL HEALTH SERVICE RESPONSE TO THE PANDEMIC

Formulating a response to the impact of the COVID-19 is complicated by economic threats the pandemic has imposed on the behavioral health service system. In an April 2020 survey of Ohio behavioral health providers, 51% of the survey's 529 respondents identified financial concerns as a major challenge, while 37% reported they either planned to or had already furloughed staff in response to constraints associated with mitigation of the pandemic. Survey respondents reported an average 35% reduction in combined



average health insurance revenues from Medicaid, Medicare and commercial coverage, while 47% of survey respondents reported they would need additional cash to continue operations for the next 60 days. In a survey of providers around the District of Columbia, 60% of respondents reported having less than three months' operating funds on hand.²⁵ A national coalition of behavioral health organizations in early April requested of Congress a stimulus package of \$38.5 billion to keep treatment providers solvent, with an additional \$10 billion more to respond to the coronavirus pandemic.²⁶ The Substance Abuse and Mental Health Services Administration (SAMHSA) on May 1 announced that Congress had allocated less than 1% of that amount—some \$425 million in emergency funding—to shore up the states' publicly funded behavioral health systems.²⁵ Ohio's \$2 million share of that emergency funding will be offset by reductions in resources for behavioral health in FY20 and FY21, and perhaps into the future. Clearly, any response by Ohio's behavioral health system to an ex-pected surge in demand for services will need to take funding challenges into account.

There have been relatively few epidemics in recent history to inform an appropriate behavioral health response to the COVID-19 pandemic, but the existing data on infectious disease outbreaks and natural disasters—in addition to public health principles—can be brought to bear on the development of a response. A public health approach to fostering community and workplace resilience includes early intervention, behavioral health education, leadership, mental health surveillance, and workplace and community preparedness. Early intervention would include wider dissemination of Psychological First Aid, which promotes safety, calming, community efficacy, connectedness, and hope through a resiliencefocused, population-based framework.²⁷ Continuing behavioral health education would promote selfcare, information about warning signs, risk factors and the relationship between mental health, substance use and other negative coping behaviors, and help with identifying appropriate professionals, services and social supports.²⁸ Increased behavioral health surveillance in primary care through routine screening for depression, anxiety, and substance use and in school settings through early identification, screening, and referral should be coupled with greater access to behavioral health treatment in general healthcare settings.²⁹

To adequately develop capacity that addresses a pandemic-related increase in service need, behavior-al health treatment providers should plan for staffing shortages. Throughout the course of the pandemic, there will be increased mental stress associated with the risk of contagion by staff and their family members. Staff may need to care for ill family members and/or experience the loss of family members, friends, and clients due to the disease. Absenteeism may run between 20% to 50% due to staff becoming ill, staying home to care for family members, or refusing to go to work for fear of contracting the virus.³⁰ The most important factor influencing willingness of health care staff to report for duty during a pandemic is their confidence that they can perform under emergency circumstances and that their response makes a difference.³¹ To maintain trauma-informed care in behavioral health treatment environments, providers should review and revise hygiene policies and practices, including use of staff sick leave, respiratory etiquette, social distancing procedures, use of personal protective equipment, and the availability of sanitation supplies such as disinfectants and face masks. Staff need to feel prepared for the duties they will



be expected to perform under pandemic conditions.

Behavioral health outreach, education and messaging to communities and the public at large should involve the use of electronic media to promote a sense of safety, connectedness, calming, hope, and empowerment at the individual, family, and community levels.³² Community collaborations that strengthen safety networks and resources for victims of domestic violence and assure access to recovery resources for individuals with substance use disorders and mental illness will require some thinking outside the box in an environment where access to libraries, schools, and churches likely will be restricted for months at time. Collaboration with community partners to promote healthy coping, social cohesion, and resilience will require some adjustment to a socially awkward "new normal" when teleconferencing is not feasible and face-to-face contact requires the use of face masks and ample meeting space.

If not addressed, pandemic-related behavioral health problems can impede the well-being of individuals, families, and communities, resulting in significant long-term health burdens. Consequently, it is important to identify and screen children, youth, adults, and older adults for behavioral health problems and link them to appropriate preventive, clinical, and recovery services. People likely to benefit from clinical services aimed at addressing negative pandemic impacts are those whose distress is sustained by bereavement or secondary stressors, and those whose distress is associated with functional impairment.¹⁹ For both groups, behavioral health interventions should be strengths-based, with due recognition, empathy, and validation given to the threats and challenges that quarantine and social distancing impose on recovery from mental illness and substance use disorders. Opiate Use Disorder treatment providers are encouraged to find ways to assure uninterrupted access to the most effective medications, perhaps through expanded use of buprenorphine and methadone treatment delivery via mobile teams.⁸ Similarly, treatment providers to persons with serious, persistent mental illnesses such as schizophrenia and bipolar disorder need to find ways to assure continued access to medications and recovery support services necessary for successful community tenure and the avoidance of hospitalization. For individuals experiencing sustained distress, short-term solution- or trauma- or grief-focused interventions and recovery skills training are warranted; for those experiencing functional impairment in response to pandemic-related trauma, longer-term intervention such as Trauma-focused Cognitive Behavioral Therapy is appropriate.¹⁹

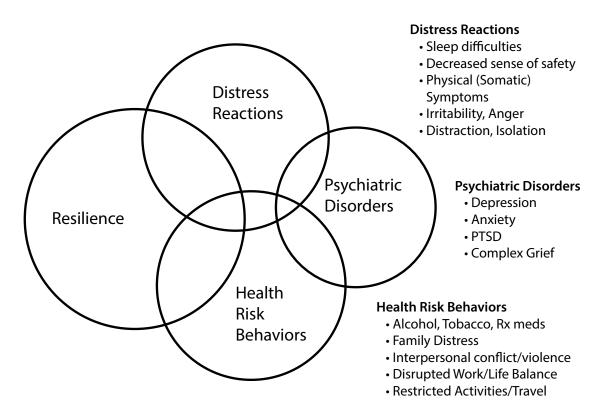
At a time when increasing numbers of individuals are seeking behavioral health care, some service providers have reduced in-person capacity with patients to reduce the spread of contagion. Patients needing services that historically have been delivered face-to-face increasingly are turning to video conferencing and phone lines. Indeed, companies delivering virtual behavioral health care have seen a massive surge in demand for services with COVID-19—with increases of 50% to 65% in February and March.13 The need to maintain social distancing as a service component has led some scholars to declare the COVID-19 pandemic a defining moment that will catalyze wide-scale acceptance of behavioral health treatment via electronic media.³³ As an event that has a major effect on human activity, the pandemic may indeed be an unforeseen turning point when a significant portion of care is delivered through teleconferencing and the internet.



Until the outbreak of coronavirus, the behavioral health field had been slow to adopt virtual services as part of routine care, often because of state and federal regulatory requirements supporting a long-held belief that the therapeutic alliance can only be established through face-to-face contact. A review of the research on internet-based therapy suggests that post-traumatic stress disorder and panic and anxiety disorders can be effectively treated in this manner.³⁴ Prudent movement toward internet-based therapies must accommodate the use of costly technology to assure compliance with privacy laws.

The COVID-19 pandemic is likely to be a game changer for health care in general, which can be taken as an opportunity for rethinking the delivery of behavioral health care. Taking advantage of such opportunities requires strong leadership at the national, state and local level, as the pandemic is expected to continue over a period of many months— perhaps years— with an uncertain and difficult-to-predict pattern of adjustment to the new normal. Planning for the delivery of behavioral health care and the dissemination of public behavioral health services during this period should anticipate dynamic shifts in service need and focus. Leadership responsive to the losses experienced during by patients and service providers should communicate effectively and openly, provide accurate and timely information, encourage cross-system collaboration and promote cohesion, and encourage growth while looking to the future.³⁵ The fundamental challenge for behavioral health leadership will be in balancing present problems and managing stressors such as losses in revenue while seeking opportunities for the promotion of behavioral health.

PSYCHOLOGICAL & BEHAVIORAL RESPONSES TO DISASTERS & PANDEMICS



Ursano RJ, Fullerton CS, Weisaeth L, et al. (2017). Textbook of Disaster Psychiatry, Second Edition, Cambridge, UK: Cambridge Univerity Press.

SOURCES

- 1. Levine M. (April 7, 2020). Calls to US helplines jump 891%, as White House is warned of mental health crisis. ABC News. Accessed on 4/29/20 at https://abcnews.go.com/Politics/calls-us-helpline-jump-891-white-house-warned/story?id=70010113
- 2. Leigh-Hunt N, Bagguley D, Bash K, et al. (2017). An overview of systematic reviews on the public health consequences of social isolation and loneliness. Public Health, 142: 147-171. Accessed on 4/27/20 at https://www.sciencedirect.com/science/article/pii/S0033350617302731?via%3Dihub
- 3. Brooks SK, Webster RK, Smith LE, et al. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. The Lancet, 395: 912-20. Accessed on 4/24/20 at https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30460-8/fulltext
- 4. Panchal N, Kamal R, Orgera K, et al. (2020). The implications of COVID-19 for mental health and substance use. Kaiser Family Foundation. Accessed on 4/24/20 at https://www.kff.org/health-reform/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/
- 5. Kang NS. (April 15, 2020). Once the coronavirus pandemic subsides, the opioid epidemic will rage. Health Affairs. Accessed on 4/29/20 at https://www.healthaffairs.org/do/10.1377/hblog20200407.290720/full/
- 6. Pellechia T. (March 24, 2020). Nielsen says beverage alcohol retails are soaring during the crisis. Forbes. Accessed on 4/29/20 at https://www.forbes.com/sites/thomaspellechia/2020/03/25/nielsen-says-beverage-alcohol-retail-sales-are-soaring-during-the-crises/#7857e74d2444
- 7. Wilcox, D. (April 21, 2020). After surge in overdose deaths, Cayuga county officials encourage outreach. The Citizen. Accessed on May 6, 2020, at https://auburnpub.com/news/local/after-surge-in-overdose-deaths-cayuga-county-officials-encourage-outreach/article_d1b77c43-184f-5e15-b839-686b80278aaa.html
- 8. Becker WC and Fiellin DA. (April 2, 2020). When epidemics collide: Coronavirus Disease 2019 (COVID-19) and the opioid crisis. Annals of Internal Medicine. Accessed on May 5, 2020, at https://annals.org/aim/fullarticle/2764312/when-epidemics-collide-coronavirus-disease-2019-covid-19-opioid-crisis
- 9. Yao H, Chen JH and Xu YF. (April 2020). Patients with mental health disorders in the COVID-10 epidemic. The Lancet: Psychiatry, 7. Accessed on 4/28/20 at https://doi.org/10.1016/S2215-0366(20)30090-0
- Express Scripts. (April 2020). America's state of mind: U.S. trends in medication use for depression, anxiety and in-somnia.
 An Express Scripts Report. Accessed on 4/29/20 at https://www.express-scripts.com/corporate/americas-state-of-mind-report
- 11. Taub, A. (April 14, 2020). A new COVID-19 crisis: Domestic abuse rises worldwide. New York Times. Accessed on 5/6/20 at https://www.nytimes.com/2020/04/06/world/coronavirus-domestic-violence.html
- 12. Campbell, AM. (April 2020). An increasing risk of family violence during the COVID-19 pandemic: Strengthening community collaborations to save lives. Forensic Science International: Reports. Accessed on 5/5/20 at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7152912/pdf/main.pdf
- 13. Oss ME. (April 23, 2020). How the coronavirus pandemic may bend the demand for behavioral health services. Executive Briefing. Open Minds. Accessed of 4/27/20 at https://www.openminds.com/market-intelligence/executive-briefings/how-the-coronavirus-pandemic-may-bend-the-demand-for-behavioral-health-services/
- 14. Hunter G and Chambers J. (May 4, 2020). Prosecutor: Security guard told Flint dollar store customer to wear mask before being fatally shot. The Detroit News. Accessed on 5/4/20 at https://www.detroitnews.com/story/news/local/michigan/2020/05/04/security-guard-told-flint-dollar-store-customer-wear-mask-before-being-fatally-shot/3078939001/
- 15. Schneider D, Harknett K, and McLanahan S. (2016). Intimate partner violence in the Great Recession. Demography, 53(2): 471-505. Accessed on 5/5/20 at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4860387/
- 16. Wells K, Klap R, Koike A, Sherbourne C. Ethnic Disparities in Unmet Need for Alcoholism, Drug Abuse, and Mental Health Care. American Journal of Psychiatry. 2001;158(12):2027–2032.
- 17. McGuire TG and Miranda J. (2008). Racial and ethnic disparities in mental health care: Evidence and policy implications. Health Affairs, 27(2): 393-403. Accessed on 6/3/20 at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3928067/
- 18. Center for Disease Control and Prevention, Division of Adolescent School Health. Youth Risk Behavioral Survey, Data Summary and Trend Report: 2010-2017. Accessed on 4/29/20 at https://www.cdc.gov/healthyyouth/data/yrbs/pdf/trendsreport.pdf
- 19. McFarland AC and Williams R. (2012). Mental health services required after disasters: Learning from the lasting effects of



- disasters. Depression Research and Treatment. Accessed on 4/28/20 at https://doi.org/10.1155/2012/970194
- 20. Jackson JC, Pandharipande PP, Girard TD, et al. (2014). Depression, post-traumatic stress disorder, and functional disability in survivors of critical illness in the BRAIN-ICU study: a longitudinal cohort study. Lancet Respiratory Medi-cine, 2: 369-79. Downloaded on 4/24/20 at https://www.ncbi.nlm.nih.gov/pubmed/24815803
- 21. Benedek DM, Fullerton C, Ursano RJ. (2007). First responders: Mental health consequences of natural and human-made disasters for public health and public safety workers. Annual Review of Public Health, 28, 55-68. Accessed on 4/27/20 at https://www.annualreviews.org/doi/10.1146/annurev.publhealth.28.021406.144037
- 22. lati M and Bell K. (April 28, 2020). NYC emergency doctor dies by suicide, underscoring a secondary danger of the pandemic. The Washington Post. Accessed on 4/29/20 at https://www.annualreviews.org/doi/10.1146/annurev. publhealth.28.021406.144037
- 23. Gunnel D, Appleby L, Arensman E, et al. (April 21, 2020). Suicide risk and prevention during the COVID_19 pandemic. Lancet Psychiatry. Accessed on 4/27/20 at https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(20)30171-1/fulltext
- 24. Substance Abuse and Mental Health Services Administration. (August 2015). SAMHSA Disaster Technical Assistance Center Supplemental Research Bulletin, Issue 5: Traumatic stress and suicide after disasters. Rockville, MD. Ac-cessed on 4/27/20 at https://www.samhsa.gov/sites/default/files/dtac/srb_sept2015.pdf
- 25. Wan, W. (May 4, 2020). The coronavirus pandemic is pushing America into a mental health crisis. Washington Post. Accessed on May 5, 2020, at https://www.washingtonpost.com/health/2020/05/04/mental-health-coronavirus/
- 26. National Alliance on Mental Illness. (April 8, 2020). The mental health and addiction crisis caused by the COVID-19 pandemic. Accessed on May 6, 2020, at https://www.nami.org/About-NAMI/NAMI-News/2020/NAMI-Calls-on-Congress-to-Respond-to-the-Mental-Health-and-Addiction-Crisis-Caused-By-the-COVID-19-P
- 27. Hobfoll SE, Watson P, Bell CC et al. (2007). Five essential elements of immediate and mid-term mass trauma intervention: Empirical evidence. Psychiatry, 70(4), 283-315.
- 28. Mental Health Association in New York State, Inc. (October 19, 2017). Mental Health Education in New York Schools: A review of legislative history, intent and vision for implementation. Accessed on 4/25/20 at https://www.mentalhealthednys.org/education-professional/mental-health-education-in-schools/
- 29. Lieberman JA and Olfsen M. (April 24, 2020). Meeting the mental health challenge through the COVID-19 Pandemic. Psychiatric Times. Accessed on 5/4/20 at https://www.psychiatrictimes.com/coronavirus/meeting-mental-health-challenge-covid-19-pandemic
- 30. Substance Abuse and Mental Health Services Administration. Disaster Planning Handbook for Behavioral Health Treatment Programs: Planning Issues for Pandemic Influenza: 65-72. Technical Assistance Publication (TAP) Series 34. HHS Publication No. (SMA) 13-4779. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2013. Accessed on 4/26/20 at https://store.samhsa.gov/sites/default/files/d7/priv/sma13-4779.pdf
- 31. Barnett DJ, Balicer RD, Thompson CB, et al. (2009). Assessment of local public health workers' willingness to respond to pandemic influenza through application of the extended parallel process model. PLoS One, 4(7), e365. Accessed on 4/26/20 at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2711331/
- 32. Institute of Medicine 2015. Healthy, Resilient, and Sustainable Communities After Disasters: Strategies, Opportunities, and Planning for Recovery. Washington, DC: The National Academies Press. Accessed on 4/28/20 at https://doi.org/10.17226/18996
- 33. Wind TR, Rijkeboer M, Andersson G, et al. (2020). The COVID-10 pandemic: The 'black swan' for mental health care and turning point for e-health. Internet Interventions 20 Editorial, Science Direct. Accessed on 4/24/20 at https://www.sciencedirect.com/journal/internet-interventions
- 34. Barak A, Hen L, Boniel-Nissim M, et al. (2008). A Comprehensive Review and a Meta-Analysis of the Effectiveness of Internet-Based Psychotherapeutic Interventions. Journal of Technology in Human Services, 26:2-4, 109-160. Accessed on 4/25/20 at https://www.ncbi.nlm.nih.gov/books/NBK76016/
- 35. Wright KS, Sparacino L, Bartone P, et al. (1987). The human response to the Gandner military air disaster: A summary report. Defense Technical Information Center. Accessed on 5/1/20 at http://www.ncbi.nlm.nih.gov/pubmed/2723619

