

research
roundup
collection
from

PracticeUpdate

Concussions

Opioid addiction

The impact of stigma
on the mental health status
of transgender individuals

Animal-assisted therapy

Climate change and mental health

The impact of Facebook on
psychosocial health

The effects of cancer on
sexuality and quality of life

Mindfulness-based stress reduction

Stress and physical health

Prepared by the

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Dear Member,



As a colleague who was in practice for many years, I know firsthand how much you're juggling during the week and how challenging it is to keep up with the latest news and research relevant to what you do.

The APA Practice Organization wants to make it easy for you to access current research that is important to you and your patients. We've packaged a collection of Research Roundups published throughout the year in *PracticeUpdate*, the e-newsletter for Practice Organization members.

This collection of Research Roundup articles looks at the latest literature on a range of health and psychological issues frequently discussed in the media and among health providers: concussions, opioid addiction, stress, the impact of stigma on the mental health of transgender individuals, how Facebook affects psychosocial health, and more.

Wherever you are in your career, or whatever professional issues you face, the Practice Organization provides you with resources and tools to support your daily work. Plus, we proactively advocate for you regarding reimbursement, practice-related legal and regulatory issues, as well as a variety of issues related to the professional and business interests of psychologists.

Whether you are a current member of the Practice Organization or a member of APA only, I hope you find this resource useful in your daily work.

A handwritten signature in black ink that reads "Katherine C. Nordal". The signature is written in a cursive, flowing style.

Katherine C. Nordal, PhD

Executive Director for Professional Practice

The APA Practice Organization, a legally separate companion organization to APA, advocates to protect practitioners' economic and marketplace interests. Membership in the Practice Organization is in addition to APA membership. Learn more about the Practice Organization's work on behalf of practitioners at apapracticecentral.org.

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Concussions

Some of the latest literature in the growing field of concussion research and treatment



By Practice Research and Policy staff

Numerous news reports regarding the high prevalence and potential serious impact of concussion have raised awareness of the necessity of evaluation following any sort of blow or trauma to the head. While neuropsychologists, rehabilitation psychologists and others have developed specialized expertise in this area, the likelihood is high that most psychologists in practice will encounter some clients with a concussion history, or that some individuals will sustain a concussion while receiving treatment for other issues.

Psychologists will likely want to become more familiar with the latest literature in this growing area in order to know when to seek additional assessment, refer for specialty care, or modify planned interventions in order to best serve those with a history of concussion.

In addition to reviewing the following research summaries, psychologists are encouraged to explore the literature more completely to determine what may be useful to them in practice.

Karr, J.E., Areshenkoff, C.N., & Garcia-Barrera, M.A. (2014). The neuropsychological outcomes of concussion: A systematic review of meta-analyses on the cognitive sequelae of mild traumatic brain injury. *Neuropsychology, 28*(3), 321-336.

Summary

Concussion, also referred to as Mild Traumatic Brain Injury (mTBI) is a common type of neurotrauma, especially among athletes and military personnel. Numerous meta-analyses have investigated the effects of concussion, and the authors conducted a systematic review in order to streamline this information, with the following objectives:

Concussions, continued

- To assess neuropsychological outcomes of concussion in past studies
- To identify cognitive effect of concussion and potential variables
- To qualitatively combine past study findings in an effort to inform concussion research and policy in the future

Eleven meta-analyses met the authors' inclusion criteria. The data was then synthesized based on moderator variables such as cognitive domain, time since injury, past head trauma, participant characteristics, comparison group, assessment technique and continuity of symptoms and yielded four main conclusions:

- Following concussion, long-term cognitive impact subsides in most people by 90 days post-injury, although athletes may have more rapid recovery windows.
- Being male, older and having more education resulted in smaller cognitive deficits within 14 days of concussion.
- Recovery outlook is derived from an average estimate across all cognitive abilities. However, the path of recovery differs across cognitive domains. Effect sizes within most cognitive domains varied greatly across meta-analyses, demonstrating a narrow understanding of post-concussion deterioration.
- An early meta-analysis characterized concussion as a frontal-executive injury. Yet, more recent studies have shown smaller effects for executive functions, although these self-regulatory capabilities seem to be hyper-sensitive to numerous concussions, perhaps suggesting that executive dysfunction is a marker of repeated head injury.

Echemendia, R.J., Iverson, G.L., McCrea, M., Macciocchi, S.N., Gioia, G.A., Putukian, M., & Comper, P. (2013). Advances in neuropsychological assessment of sport-related concussion. *British Journal of Sports Medicine*, 47, 294-298.
DOI: 10.1136/bjsports-2013-092186.

Summary

With the aim of reviewing advances made in neuropsychological assessment, the authors performed a targeted literature search from 2000 to 2013 and identified articles containing the keywords: neuropsychological, neurocognitive, assessment, testing, and concussion and sports.

While there is no decisive evidence championing one method of neuropsychological assessment over another, traditional measures, computerized batteries assessment

Concussions, continued

over another, traditional measures, computerized batteries and/or a combination of these approaches have their respective strengths and weaknesses.

Traditional testing has proved to be largely dependable and accurate when evaluating concussions and can be tailored to the needs of the individual being assessed using large normative databases for comparisons. However, the need for face-to-face observation can lead to variance in test administration, and traditional testing is time consuming.

Computerized tests, including the Immediate Post-concussion Assessment and Cognitive Testing (ImPACT) and Axon Sports, are portable and can be administered quickly. Recent studies show that computerized neuropsychological testing is efficacious when baseline data is unavailable. Unfortunately, computerized batteries rely on a small sample of cognitive functioning.

Concussed individuals can vary greatly in terms of symptoms, which can include physical and cognitive symptoms as well as serious psychological and emotional disturbances such as depression, anxiety, social isolation, frustration, anger and guilt. An individual may experience prominent symptoms in one domain, but only slight symptoms in another domain. Due to the complexity of concussions, neuropsychological instruments are essential but not the only method for determining when an athlete can return to normal activity.

While advances in symptom scales that can be effectively used with children have been made, more psychometrically sound, age-appropriate tests that are sensitive to the symptoms of concussion in children are needed. Though key assessment domains between children and adults are similar, critical differences need to be considered, including children's cognitive, physical and emotional development. Additionally, a child's ability to serve as the primary reporter of their symptoms must be taken into account. While more evidence is needed, computerized batteries including CogSport, Pediatric ImPACT, and CNS Vital Signs show promise in assessing concussive symptoms in children under 12.

Broshek, D.K., DeMarco, A.P., & Freeman, J.R. (2015). A review of post-concussion syndrome and psychological factors associated with concussion. *Brain Injury*, 29(2), 228-237. DOI: 10.3109/02699052.2014.974674.

Summary

Nonspecific symptoms described by a concussed individual that continue

Concussions, continued

Nonspecific symptoms described by a concussed individual that continue beyond the “normal” recovery period are referred to as post-concussion syndrome (PCS). These can include difficulty concentrating, sleep disturbances, fatigue, irritability, headaches, vertigo, depression and/or anxiety. It is often estimated that 10-20 percent of patients who experience a concussion will experience PCS. However, it’s difficult to qualify these estimates due to the lack of precision when defining PCS symptoms. Some studies have shown that individuals with intense anxiety sensitivity, or a fear response related to one’s own bodily sensations and a belief that such sensations predict negative ramifications, may increase the risk of PCS due to how the injury is perceived. Attribution may play a part in the evolution of PCS for some patients as they assume such symptoms are simply a normal part of recovery.

It is estimated that approximately 12-44 percent of people with a concussion experience depression within the first three months of their injury.

In their latest Consensus Statement on Concussion in Sport, the Concussion in Sport Group (CISG) recognized that psychological issues are frequently disclosed as an effect of concussion and should be addressed when managing those who have suffered a sports-related concussion. Some evidence shows that, regardless of the severity of the brain injury, neurobiological and pathophysiological changes can occur and bring on psychological symptoms. This is found to be most common in sports-related concussion.

Intracranial abnormalities after a concussion often involve the frontal and temporal lobes, and the frontal-limbic-subcortical structures are believed to be associated with depression, suggesting a pathway for concussion to lead to depression – as it often does. It is estimated that approximately 12-44 percent of people with a concussion experience depression within the first three months of their injury. Much like depression, anxiety symptomology is frequently seen in concussed individuals due to damage done to the prefrontal cortex, ventral frontal lobe, and the anterior temporal lobe, all areas of the brain believed to play a role in the recognition of emotionally relevant stimuli and the management of reactions to that stimuli.

Studies have found that inordinate amounts of rest – both cognitively and physically – may lengthen PCS. Treatment that includes carefully managed and gradual activity, techniques to reduce anxiety, CBT for any cognitive biases or misattribution, and teaching patients how to handle any psychological factors

Concussions, continued

impeding rehabilitation, may be the most effective approach for getting individuals back to daily life.

Clinical Implications

Much of the literature on assessment of concussion and evaluation of impact derives from sports-related, and to a lesser extent other blunt force trauma, brain injuries. Much less is known about best practices related to assessment and recovery from blast injuries, common among service members.

However, all psychologists are likely to encounter individuals who have sustained a concussion, even if the focus of treatment is other issues. While some may have the appropriate training and tools for proper assessment, other psychologists may wish to refer for more comprehensive neuro-psychological evaluation.

Regardless, familiarity with potential cognitive, psychological and emotional symptoms and the expected rate of recovery is useful for all psychologists. Psychologists will want to ensure that a full range of cognitive difficulties are evaluated post trauma and monitored for recovery. Additionally, psychologists will want to be attuned to the psychological and environmental pressures individuals may face. For instance, athletes may push to return to play in order to be part of their peer group, be “tough” and participate in a sport that provides a sense of identity, even if they may not be fully recovered. On the other hand, activity may be a stress-management tool, so appropriate levels of activity may be useful in managing some of the psychological stresses during the recovery phase.

Psychologists can help all patients (and family members) develop additional stress management tools, understand the risk of concussion, particularly multiple concussions, and manage expectations during the recovery phase. ■

Opioid Addiction

Clinical considerations for
psychologists who may see patients
with opioid misuse



By Practice Research and Policy staff

Use of opioids in the United States has reached epidemic proportions in recent years. According to the Centers for Disease Control and Prevention (CDC), opioids killed more than 28,000 people in 2014; more than any other year on record. At least half of all opioid deaths involve a prescription opioid.

Despite more frequent opioid prescription, there has been no overall change in the amount of pain reported by Americans. The Department of Health and Human Services has developed a “National Pain Strategy,” and the CDC recently released guidelines for prescribing opioids for chronic pain.

A study by the American Medical Association found that out of 472,000 participants between the ages of 18 and 64 who took part in the 2003-2013 National Surveys on Drug Use and Health, three-fourths of those who need help with prescription opioid dependence are not receiving it. In order to achieve long-term recovery, patients may need psychological treatment as well as medication-assisted therapies.

In addition to reviewing the following research summaries, psychologists are encouraged to explore the literature more completely to determine what may be useful to them in practice.

Opioid addiction, continued

Garland, E.L., Manusov, E.G., Froeliger, B., Kelly, A., Williams, J.M., & Howard, M.O. (2014). Mindfulness-oriented recovery enhancement for chronic pain and prescription opioid misuse: Results from an early-stage randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 82(3), 448-459.

Summary

Abuse of and addiction to prescription opioids is on the rise among those suffering from chronic pain, with more than 1 in 10 chronic pain patients presenting with serious physical and mental health issues indicative of opioid misuse. Cognitive, affective and behavioral functioning can become dysregulated, leading to even greater suffering than the chronic pain patient was contending with prior to opioid abuse.

Recognizing the need for treatments that concurrently address chronic pain and opioid addiction, the authors of this study conducted a randomized controlled trial of Mindfulness-Oriented Recovery Enhancement (MORE). MORE incorporates mindfulness training, cognitive reappraisal skills and positive emotion regulation in order to adjust the attentional biases, habit behavior, affective dysregulation and automatic stress responses that are rooted in the feedback loop of chronic pain and addiction.

One hundred and fifteen participants were randomized into either MORE or the traditional support group (SG), and received eight weeks of treatment. The traditional support group involved patients talking about issues applicable to chronic pain and long-term opioid use, similar to the topics addressed in MORE. Outcomes from both treatments were measured pre- and post-treatment, as well as at a three-month follow-up. Changes in pain sensitivity and interference were appraised with the Brief Pain Inventory (BPI). The Current Opioid Misuse Measure was used to assess any alterations in the opioid use disorder status. Additionally, craving for opioids, stress, nonreactivity, reinterpretation of pain sensations and reappraisal were also measured.

Participants in the MORE treatment group reported significantly greater reductions in pain severity and pain interference than those in the SG treatment group. These results continued at the three-month follow-up. In addition, the MORE participants experienced increased nonreactivity and reinterpretation of pain sensations and were likely to no longer meet the criteria for opioid addiction up to three months post-treatment than those who received SG.

Opioid addiction, continued

Jones, R.E., Spradlin, A., Robinson, R.J., & Trageser, S.L. (2014). Development and validation of the opioid prescription medication motives questionnaire: A four-factor model of reasons for use. *Psychology of Addictive Behaviors, 28*(4), 294-298. DOI: 10.1037/a0037783.

Summary

The authors of this study sought to establish evidence for a measure that can aid in understanding the motives behind prescription opioid misuse, which could help guide prevention and treatment efforts. Prescription opioid motives identified in previous studies were found to map closely to literature focusing on alcohol motives. Therefore, the authors adapted items from the Drinking Motives Questionnaire-Revised that address the factors of enhancement, coping and social motives to create their own 19-item measure called the Opioid Prescription Medication Motives Questionnaire.

The questionnaire was completed by 111 male and 226 female undergraduate students. Questions aimed to measure frequency, quantity, context of use, consequences and dependence features, misuse and motives for use. Items concerning frequency, quantity and context of use asked participants to report on the number and frequency of pills consumed in a three-month period (for example, every day, every other day). Additionally, participants were asked about the context in which pills were taken.

The factors that most significantly predicted the use of prescription opioids among this sample were pain and coping, suggesting these factors may make individuals more at risk for developing habits of misuse...

Consequences and dependence factors examined the ramifications of prescription opioid use. The questions were modeled after the Brief Michigan Alcoholism Screening Test.

Confirmatory factor analysis showed that prescription opioid motives can be broken down into four factors – enhancement, coping, social and pain. The factors that most significantly predicted the use of prescription opioids among this sample were pain and coping, suggesting these factors may make individuals more at risk for developing habits of misuse when prescribed opioids.

Opioid addiction, continued

Worley, M.J., Heinzerling, K.G., Shoptaw, S., & Ling, W. (2015). Pain volatility and prescription opioid addiction treatment outcomes in patients with chronic pain. *Experimental and Clinical Psychopharmacology*, 23(6), 428-435. DOI: 10.1037/pha0000039.

Summary

The authors of this study examined the correlation between the level and volatility of pain and treatment outcomes.

One hundred forty-nine participants over the age of 18 who met DSM-IV criteria for prescription opioid addiction and also suffered from chronic pain received 12 weeks of Buprenorphine/naloxone (BUP/NLX), and were randomized to either an enhanced counseling or standard medical management group.

Abstinence from opioid use by the last two to three weeks of the study was considered a successful outcome. Opioid and non-opioid drug use during treatment was measured with self-report and confirmed by urine drug screen. Participants took the Brief Pain Inventory-Short Form, so the authors could assess subjective pain severity. Baseline demographic and clinical characteristics were gathered with the Addiction Severity Index-Lite and the Pain and Opiate Analgesic Use History questionnaire. Dose of BUP/NLX was captured with use of a drug dispensing and compliance log. The Clinical Opiate Withdrawal Scale measured opiate withdrawal symptoms and severity.

The authors found that participants with a one standard deviation increase in pain over time of treatment were 44 percent less likely to achieve abstinence from opioid use by the end of treatment. Overall, however, participants reported significant decreases in subjective pain while on BUP/NLX and receiving counseling for opioid addiction, regardless of whether they received the enhanced or standard counseling. Greater pain volatility could serve as an important marker for opioid use than initial pain severity.

Clinical Implications

While some psychologists specialize in treating individuals experiencing chronic pain, many individuals with chronic pain may not have access to or seek specialized care, and some may be presenting for care for a variety of other reasons. As the problems of opioid use and misuse grow, psychologists

Opioid addiction, continued

will likely want to become more familiar with the latest literature in this growing area in order to know when to seek additional assessment, refer for specialty care, or modify planned interventions when treating those experiencing chronic pain and using opioids.

While some psychologists specialize in treating individuals experiencing chronic pain, many with chronic pain may not have access to or seek specialized care, and some may be presenting for care for a variety of other reasons.

Psychological treatments (existing and emerging) can help reduce and manage the experience of chronic pain. Identifying individual factors, such as volatility of pain and current coping strategies (or lack thereof), that may make someone more likely to begin misusing prescribed opioids could be an important initial step for psychologists to then know when to intervene to potentially reduce the occurrence of opioid addiction among patients already receiving psychological care for pain and other reasons. ■

The Impact of Stigma on the Mental Health Status of Transgender Individuals



The impact of stigma on the psychosocial health and well-being of transgender youth and adults

By Practice Research and Policy staff

Research has found that individuals who identify as lesbian, gay, bisexual, transgender and queer or questioning (LGBTQ) are at a greater risk of mental health concerns than their heterosexual peers (Cochran & Mays, 2000, 2005, Oswalt & Wyatt, 2011).

Sexual orientation or gender identity of these individuals does not appear to automatically put them at risk of mental health issues. Familial, peer and community reactions can result in sexual stigma, discrimination and victimization that has been shown to impact mental health outcomes. The impact of these noted stressors is intensified for individuals who identify as transgender. These stressors not only have a negative impact on mental health but also create a barrier to mental health care utilization.

The following studies examined the mental health outcomes and resilience factors of transgender individuals as a result of the associated stigma, discrimination and victimization of their minority sexual orientation status. These studies also examined the differential experiences of these variables based on demographic factors such as age, race/ethnicity and gender, with particular attention paid to gender nonconformity and experiences of victimization.

In addition to reviewing the following research summaries, psychologists are encouraged to explore the literature more completely to determine what may be useful to them in practice.

Transgender individuals, continued

Shipherd, J.C., Maguen, S., Skidmore, W.C., Abramovitz, S.M. (2011). Potentially Traumatic Events in a Transgender Sample: Frequency and associated symptoms. *Traumatology*, 17(2) 56-67. DOI: 10.1177/1534765610395614.

Summary

The authors conducted a cross-sectional study of 97 transgender participants between the ages of 20 and 72 years old who had been classified as male at birth. Participants were asked to complete the Traumatic Life Events Questionnaire (TLEQ) to measure trauma exposure and assess a range of potentially traumatic events, PTSD Checklist Civilian version (PCL-C) to assess PTSD symptoms, the Center for Epidemiologic Studies Depression Scale to assess symptoms of depression, and the Short Form-12 (SF-12) to assess general physical and mental health functioning. Those who rated any event category as experienced due to their transgender status were placed in the Bias group (42 percent); otherwise, participants were placed in the Non-bias group. Furthermore, the sample was divided into two groups: More Time Dressed (50 percent or more of time spent dressed consistent with gender identity) or Less Time Dressed (less than 50 percent of time dressed consistent with identity).

They found a 98 percent trauma exposure rate, with 90.7 percent of the sample population reportedly experiencing multiple potentially traumatic events. The More Time Dressed group indicated significantly more exposure to trauma than the Less Time Dressed group. However this difference was not associated with bias-related events.

Modest symptoms of PTSD were found, with More Time Dressed group reporting higher levels. No group differences were found between the Bias and Non-bias participants. Those who reported exposure to potentially traumatic events endorsed clinically elevated symptoms of depression; again, the More Dressed Time group was found to be higher on this scale, but Bias did not result in group differences.

Transgender individuals, continued

Grossman, A.H., D'Augelli, A.R., Frank, J.A. (2011). Aspects of Psychological Resilience among Transgender Youth. *Journal of LGBT Youth*, 8(2) 103-115. DOI: 10.1080/19361653.2011.541347.

Summary

This study examined a model of psychological resilience among 55 transgender youth between the ages of 15 and 21, most of whom experienced psychological and social stresses associated with their minority gender identity and nonconformity. Of the 55 transgender youth, 31 of the youth were male-to-female (MTF) and 24 female-to-male (FTM) participants.

The examined variables included self-esteem, a sense of personal mastery, perceived social support, and emotion-oriented coping. Additionally, the study explored developmental risks associated with society's gender scripts and the elevated awareness of sexual and gender identities during late childhood and adolescence that could affect the mental health status of these individuals.

Participants responded to interview questions related to sexual and gender orientation developmental milestones, provided ratings of their parents' initial and current reaction to their identities and behaviors, and recalled the number of experiences with verbal, physical and/or sexual abuse by parents and peers. Participants also completed a battery of standard mental health measures.

The resilience model predicted 40-55 percent of the variance in psychological resilience relating to depression, trauma symptoms, mental health symptoms, and internalizing and externalizing problems. Results indicated higher self-esteem, a higher sense of personal mastery, and greater perceived social support, predicted positive mental health outcomes.

Emotion-oriented coping predicted negative mental health outcomes. In regard to the development of gender identities, all of the participants reported they "felt different from others" around the age of 8. Almost all of the FTM youth were called "tomboys" and the MTF youth were called "sissy" and were then told to stop acting as such by their parents.

Congruent with previous research, the more gender-nonconforming the youth were, the more parental verbal and physical abuse they experienced. In regard to victimization, 71 percent of FTM and 87 percent of MTF youth reported past verbal abuse, 17 percent of FTM and 36 percent of MTF youth reported past physical abuse, and 16 percent of MTF youth reported past sexual abuse.

Transgender individuals, continued

Clements-Nolle, K., Marx, R., Katz, M. (2008). Attempted Suicide Among Transgender Persons. *Journal of Homosexuality*, 51(3) 53-69. DOI: 10.1300/J082v51n03_04.

Summary

Lesbian, gay, and bisexual individuals have been found to be more likely to attempt suicide than their heterosexual peers, in part due to experiences of discrimination and victimization. Although studies examining suicide attempts in transgender individuals are limited, researchers hypothesize a higher prevalence of suicidal behaviors due to the associated societal oppression.

This study explored the independent predictors of attempted suicide among 329 MTF and 123 FTM transgender individuals. This study examined known risk factors inclusive of substance abuse, physical and mental abuse, and depression, and potential mediators of suicide risk such as self-esteem, as well as discrimination and victimization.

This cross-sectional study found that a history of attempted suicide was significantly higher among transgender individuals who were white, less than 25 years of age, recently unemployed, and had been incarcerated. Attempted suicide was also significantly associated with depression, low self-esteem score, history of alcohol and drug treatment, forced sex or rape, verbal gender victimization, gender discrimination, and physical gender victimization.

This cross-sectional study found that a history of attempted suicide was significantly higher among transgender individuals who were white, less than 25 years of age, recently unemployed, and had been incarcerated.

Clinical Implications

Transgender individuals endorse a rate of trauma that significantly exceeds the national rates, suggesting a great likelihood of trauma exposure in the transgender population and a need for careful clinical assessment. Transgender youth face significant amounts of discrimination and abuse, beginning in their homes. Those individuals trying to find appropriate and comfortable expression

Transgender individuals, continued

of their gender identity may be at greater risk for traumatic events, a consideration psychologists should keep in mind during clinical work.

Psychologists working with transgender youth will need to engage with families to increase support and acceptance, when possible, and ensure the youths' safety. The development of interventions focused on families supporting their transgender youth is key in nurturing the mental health of these youth.

Additionally, psychologists will want to promote self-esteem, personal mastery, and social support to assist transgender individuals in achieving positive realities. Task-oriented coping strategies appear more effective than emotion-oriented coping in individuals to adapt to and manage their stress.

Remaining aware of the risk of suicide is essential, and screening for known risk factors such as substance abuse, depression, and history of forced sex, but also specifically gender discrimination and physical victimization, may facilitate faster identification of those most at risk for attempting suicide.

Psychologists will want to promote self-esteem, personal mastery, and social support to assist transgender individuals in achieving positive realities.

Beyond direct service provision to these youth, psychologists may also wish to develop interventions to increase familial and societal acceptance of this stigmatized population. Peer-based outreach interventions could aid in reaching youth that are hidden due to feared ostracism. Community awareness campaigns in addition to legislation focused on the discrimination and hate crimes against transgender youth may also help in the prevention of suicide among transgender individuals.

The American Psychological Association Council of Representatives adopted Guidelines for Psychological Practice with Transgender and Gender Non-conforming People in 2015. For more information on the guidelines see: Guidelines for psychological practice with transgender and gender nonconforming people at: [www.apa.org/practice/guidelines/transgender.pdf?_ga=1.28513278.377343701.1439581785](http://www.apa.org/practice/guidelines/transgender.pdf?ga=1.28513278.377343701.1439581785). ■

Animal-Assisted Therapy



The use of animals as a therapeutic agent in reducing aggressive behaviors, anxiety, posttraumatic stress symptoms, and attention-deficit/hyperactivity disorder in a variety of inpatient and outpatient settings

By Practice Research and Policy staff

Animal-assisted therapy (AAT) encompasses the use of animals, typically dogs or horses, in providing therapeutic services for a broad range of psychological disorders. From the U.S. Department of Veterans Affairs to pediatric hospitals across America, the presence of support or therapy animals is becoming more prevalent. Therefore, it is useful for practitioners to be familiar with the efficacy and potential benefits of AAT.

The following studies investigated the use of animals as a therapeutic agent in reducing aggressive behaviors, anxiety, posttraumatic stress symptoms (PTSD) and attention-deficit/hyperactivity disorder (ADHD) in a variety of inpatient and outpatient settings. Under the direction of a trained professional, individuals completed structured tasks with a certified animal during therapy sessions. Although the simple presence of an animal in a therapeutic setting may have positive implications, often referred to as animal-assisted activated, the following studies followed specific treatment protocols, which relied on goal-directed interventions.

In addition to reviewing the following research summaries, psychologists are encouraged to explore the literature more completely to determine what may be useful to them in practice.

Animal-assisted therapy, continued

Earles, J. L., Vernon, L. L., & Yetz, J. P. (2015). Equine-assisted therapy for anxiety and posttraumatic stress symptoms. *Journal of Traumatic Stress, 28*(2), 149-152. DOI: 10.1002/jts.21990.

Nurenberg, J. R., Schleifer, S. J., Shaffer, T. M., Yellin, M., Desai, P. J., Amin, R., ... & Montalvo, C. (2015). Animal-assisted therapy with chronic psychiatric inpatients: Equine-assisted psychotherapy and aggressive behavior. *Psychiatric Services, 66*, 80-86. DOI: 10.1176/appi.ps.201300524.

Schuck, S. E., Emmerson, N. A., Fine, A. H., & Lakes, K. D. (2015). Canine-assisted therapy for children with ADHD: Preliminary findings from The Positive Assertive Cooperative Kids Study. *Journal of Attention Disorders, 19*(2), 125-137. DOI: 10.1177/1087054713502080.

Summaries

Nurenberg et al. (2015) studied the use of equine- and canine-assisted psychotherapy in treating violent and aggressive behaviors in 90 hospitalized psychiatric patients. The majority of participants had diagnoses of schizophrenia or schizoaffective disorder and were involuntarily committed to the hospital.

Patients were randomly assigned to one of four conditions: equine-assisted psychotherapy, canine-assisted psychotherapy, active control (such as a social skills group) or standard control. The equine-assisted psychotherapy followed the model of the Equine Assisted Growth and Learning Association, which involved trained therapists and credentialed therapy horses by the Delta Society/Pet Partners. Therapy sessions included reviewing safety skills, greeting the horses, and engaging in a discussion period and guided activities such as leading horses through an obstacle course.

Canine-assisted psychotherapy utilized a similar model that encompassed the use of certified therapist-dog teams, group therapy sessions, discussion sessions and guided activities such as grooming, leading and directing the animals. Pre- and post-measures of violent aggressive incidents were assessed and recorded by trained hospital staff who were blinded to group treatment assignment.

Results showed that patients benefited from 10 weeks of equine- and canine-assisted therapy. Those who received equine-assisted therapy in particular displayed the most significant decrease in aggressive behavior. The unique effect of therapy horses may come from the animal's physically imposing

Animal-assisted therapy, continued

appearance and highly responsive nature. Trained equine animals can perceive a person's nonverbal behavior and respond to changes in biochemistry, body language and voice inflections. They also mirror nonviolent behavioral strategies, which can aid humans in developing a higher tolerance for challenging interpersonal stimuli. In sum, the horse's imposing stature and ability to respond to human stimuli while mirroring nonviolent behaviors is believed to have helped the psychiatric patients to experience less affective symptoms and to have more improved interpersonal interactions.

The effectiveness of equine-assisted therapy in reducing anxiety and PTSD symptoms was also studied by Earles et al. (2015). In this small naturalistic study, participants who experienced PTSD symptoms above 31 on the PTSD Checklist (PCL- S; Weathers, Litz, Herman, Huska, & Keane, 1993) engaged in tasks with horses for six weeks based on the Equine Partnering Naturally[®] program. During each weekly two-hour session, the participants learned how to interact nonverbally with the animals and to set boundaries, halter, lead and back up the horses. These activities were designed so that the horses provided immediate feedback on nonverbal behavior, such as by crowding a participant who is physically hunched over. This feedback increases participants' nonjudgmental self-awareness, concentration and listening skills, which is hypothesized to subsequently reduce PTSD and anxiety symptoms.

Several questionnaires, such as the Trauma Emotion Questionnaire (Vernon, 2009), the Generalized Anxiety Disorder Scale (Spitzer Kroenke, Williams, & Lowe, 2006) and the Patient Health Questionnaire (PHQ-9; Kroenke, Spitzer & Williams, 2001), were used to assess physical, emotional and psychological health. After the completion of the equine-assisted therapy program, participants reportedly engaged in more mindfulness strategies and experienced significantly reduced levels of PTSD, generalized anxiety, alcohol abuse and emotional responses to trauma. Participants also displayed lower levels of depression. Finally, Schuck et al. (2015) reported preliminary findings from Project Positive Assertive Cooperative Kids, an ongoing, randomized clinical study that explores

After the completion of the equine-assisted therapy program, participants reportedly engaged in more mindfulness strategies and experienced significantly reduced levels of PTSD, generalized anxiety, alcohol abuse and emotional responses to trauma.

Animal-assisted therapy, continued

the efficacy of canine-assisted therapy in treating children with ADHD. Participants were randomly assigned to receive 12 weeks of cognitive behavioral group therapy (CBGT) that either incorporated live therapy dogs or puppets. The intervention sessions occurred twice per week and included a social skills curriculum, parental training sessions, medication and structured activities such as having the children read short stories to the dogs and training exercises.

Parental reports of their children's problem behaviors, social skills and prosocial orientation were assessed prior to starting treatment and throughout the course of the study. Immediate and six weeks post-intervention assessments were also conducted with both the parents and children.

The preliminary results revealed that across both treatment groups, there was an overall reduction in ADHD symptoms. Those who participated in CBGT with a live therapy dog displayed a more significant improvement in social skills and prosocial behavior, as well as a reduction in problematic behaviors, compared to those in the therapy group incorporating a puppet. The researchers suggested that the live animals – as opposed to the puppet – acted as a novel stimulus that primed the children for the therapy sessions and allowed for them to maintain attention and refocus on the task at hand.

The preliminary results revealed that across both treatment groups, there was an overall reduction in ADHD symptoms.

Clinical Implications

The three articles suggest that AAT may be an effective form of therapy for treating emotional and behavioral issues in patients experiencing anger, PTSD or ADHD. Dogs and horses have the potential to engage and serve difficult-to-engage populations. These articles suggest that animals provide a significant calming and therapeutic effect on patients with psychological disorders.

For the type of intervention programs summarized here, proper training and certifications from accredited programs should be acquired. Yet, clinicians may want to consider how incorporating the use of animals, such as by bringing a dog into the therapy session, may help patients increase attention, reduce anxiety

Animal-assisted therapy, continued

The three articles suggest that animals provide a significant calming and therapeutic effect on patients with psychological disorders.

and combat unwanted behaviors. However, veterinary considerations, infectious control policies and liability concerns should also be taken into account, and we encourage psychologists to comprehensively explore additional resources to determine how the incorporation of therapy animals may be useful in their practice. ■

Climate Change and Mental Health



The adverse mental health effects of global climate change and the role psychologists can play in addressing those issues

By Practice Research and Policy staff

While the environmental, physical health and economic impacts of global climate change have been frequently researched and reported, the potential adverse mental health effects in the coming years have not received as much consideration.

Climate change is having an array of direct and indirect effects on individuals and society. Mental health professionals will need to be aware of these effects, especially when working with those living in areas that are particularly susceptible to weather events.

Psychologists can prepare by educating themselves on climate change and, in turn, educating patients as well as the public on possible mental health impacts. Psychologists would then be well-equipped to identify communities and populations that will be most in need of their expertise. In addition to reviewing the following research summaries, psychologists are encouraged to explore the literature more completely to determine what may be useful to them in practice.

Climate change and mental health, continued

Bourque, F. & Wilcox, A. C. (2014). Climate change: The next challenge for public health? *International Review of Psychiatry*, 26(4) 415-422. DOI: 10.3109/09540261.2014.925851.

Summary

Examples of climate change and resulting mental health effects from various geographical locations are provided to illustrate the occurrence. In Australia, researchers have reported an increase in the levels of hopelessness and psychological stress among those experiencing environmental degradation and disturbances to farming due to droughts and other weather-related disasters. Severe and persistent droughts in Australia over the last ten years are believed to be correlated with increased generalized anxiety, depression and suicide.

Severe and persistent droughts in Australia over the last ten years are believed to be correlated with increased generalized anxiety, depression and suicide.

While demographic and socioeconomic status could influence susceptibility to climate-related mental health effects, living in more rural areas where mental health services are not as readily available may also contribute to poor mental health outcomes for those faced with environmental degradation.

Some of the most dramatic climate changes in the world have been experienced by Inuit populations in northern Canada, an area projected to undergo a 10-degrees-Fahrenheit temperature increase in this century. As a result of the warming that has already occurred, Canada is experiencing decreasing sea ice thickness, more frequent and powerful storms and disruptions to plant and animal life. Because the Inuit rely so heavily on the natural environment for survival, these alterations are upsetting their very way of life, including their mental health and overall well-being. Compared to the non-Indigenous Canadian population, suicide rates among Inuit people are significantly higher, especially among adolescents. An absence of mental health services only adds to the difficulty.

Devastating weather events such as hurricanes and typhoons are expected to increase in both severity and frequency as a result of climate change.

Climate change and mental health, continued

Several studies in the United Kingdom reported that severe flooding increased the chance of experiencing psychological distress which was linked to physical illness in both children and adults. Research on the psychological effects of Hurricane Katrina correlated with acute stress, PTSD, violence, depression and suicide.

Many previous studies have shown that because weather disasters are typically viewed as natural occurrences, victims of such events experience psychological responses that aren't as severe or complex as they often do when trauma is caused by humans. Therefore, the authors suggest that as individuals come to accept the connection between the actions of humans and their contributions to climate change, the grieving and recovery process will be more difficult.

O'Brien, L. V., Berry, H. L., Coleman, C., & Hanigan, I. C. (2014). Drought as a mental health exposure. *Environmental Research*, 131, 181-187.

Summary

An increasing number of severe droughts all over the world are forecasted as a result of climate change. A drought is defined as, "below average precipitation and/or intense but less frequent rain events and/or above-normal evaporation resulting in dry soils, reduced plant growth and reduced crop production." The authors of this study quantified drought with regard to its length and severity by examining rainfall data from the Australian Bureau of Meteorology and creating two indices of comparative dryness. The dryness of different areas was tracked. Summary measures were analyzed to determine various drought characteristics felt during the "Big Dry," an Australian drought that lasted from 2001 to 2008.

A drought is defined as, "below average precipitation and/or intense but less frequent rain events and/or above-normal evaporation resulting in dry soils, reduced plant growth and reduced crop production."

An annual government-funded survey called the Household, Income and Labour Dynamics in Australia (HILDA) Survey looks at multiple facets of life for the country's residents, including the job market, family dynamics, overall well-being and socioeconomic measures. The authors used the results from the HILDA that was given just prior to the end of the "Big Dry," so as to ascertain

Climate change and mental health, continued

information from the population before recovering from the long drought conditions. Additionally, the iteration of the HILDA that was used also included the Kessler-10, a brief measure of depression, psychological fatigue and anxiety.

Results showed that severe and long-felt periods of drought (20-32 months), strongly correlated with increased distress in rural areas. Individuals living in areas where unrelenting drought is experienced were more likely to demonstrate a subclinical level of moderate distress that could increase the likelihood of mental health issues.

Lowe, S. R., Joshi, S., Pietrzak, R. H., Galea, S., & Cerda, M. (2015). Mental health and general wellness in the aftermath of Hurricane Ike. *Social Science & Medicine*, 124, 162-170.

Summary

Mental health issues including post-traumatic stress symptoms (PTSS) and depression have been associated with exposure to natural disasters. In addition, work-related difficulties and physical health problems such as somatic complaints have also been linked. The authors of this study examine predictors of mental health and general wellness in a three-wave study of Hurricane Ike survivors in order to gain insight into the number of survivors who require post-disaster services, as well as to ascertain targets for interventions to assist in population recovery.

Participants were 18 years and older, residing in Galveston or Chambers County for at least one month before Hurricane Ike hit. In Wave 1 of the study, which was conducted about two to five months after Hurricane Ike, 658 participants completed interviews. Wave 2 was conducted at the five- to nine-month mark with 529 participants, and Wave 3 was conducted 14-19 months after Hurricane Ike. In total, 448 participants completed all three waves.

For each wave, the Post-traumatic Stress Disorder Checklist-Specific version (PCL-S) was used to assess post-traumatic stress symptoms. Depressive symptoms were measured with the Patient Health Questionnaire (PHQ-9). Six items from the Short Post-Traumatic Stress Disorder Rating Interview-Expanded Version (SPRINT-E) evaluated functional impairment and the Center for Disease Control and Prevention's Health-related Quality of Life -4 (CDC HRQOL-4) looked at the number of days in the prior month that participants' reported poor physical health.

Climate change and mental health, continued

During Wave 1, exposure to hurricane-related traumatic events, hurricane-related stressors, emotional reactions at the time of the traumatic events, and community-level social assets were measured.

The authors found that the majority of respondents demonstrated resilience, or consistently low levels of problems and/or symptoms over time: 74.9 percent demonstrated resilience from PTSS; 57.9 percent for depression; 45.1 percent for functional impairment; and 52.6 percent for poor health days. Fourteen to 19 months after Hurricane Ike, 51.2 percent of respondents presented with good mental health and 26.1 percent presented with good general wellness. Mental health and general wellness were linked to fewer emotional reactions at the time of the traumatic events and greater collective efficacy (the community's belief in its capabilities to achieve its goals). Hurricane-related stressors such as loss of belongings, pets and finances as a result of the hurricane were negatively associated with good mental health. Personal loss of property was negatively linked to general wellness. Several domains of post-disaster functioning seem to be influenced by emotional reactions at the time of the traumatic events, loss of property, and collective efficacy.

Lamond, J. E., Joseph, R. D., & Proverbs, D. G. (2015). An exploration of factors affecting the long term psychological impact and deterioration of mental health in flooded households. *Environmental Research*, 140, 325-334.

Summary

While most quantitative studies on mental health related to flooding have only examined the immediate and short-term effects, the authors of this study sought to investigate mental health and wellness years after flooding occurred. Previous studies were used to develop a theoretical framework incorporating many exposure, outcome and covariate elements, such as severity of deterioration of mental health, frequency of current anxiety when it rains, and frequency of increased stress level. Exposure factors included duration of flooding, depth of flooding, cost of damage and the need to relocate. Additionally, participants' age, income level and occupation were considered as covariates.

Responses to a cross-sectional postal survey of individuals who had experienced flooding during a large flood event throughout England in 2007 were assessed. Characteristics of participants' home life, the flood event, post-flood stressors and coping strategies were taken into account and then compared to measures of stress, anxiety and depression.

Climate change and mental health, continued

The authors found that income level, severity of the flood event, and whether or not participants were forced to relocate as a result of the flood event were linked to mental health deterioration. Even several years after the flood occurred, many reported moderate symptoms of mental health deterioration, and a smaller number reported still suffering extreme symptoms.

Clinical Implications

Climate change is likely to have population effects on mental health and well-being. While psychologists may be equipped to assist individuals coping with the effects of various natural disasters related to weather and climate changes, psychologists may also want to consider how they might assist their local populations in developing resilience to anticipated climate change-related impacts, and helping develop proactive strategies to cope. Some psychologists might also want to assist communities in adapting and potentially modifying behaviors so as to reduce some of the human behaviors contributing to climate change and hindering our ability to prepare for it. ■

Additional Resources

APA's Disaster Resource Network (DRN) is a group of approximately 2,500 licensed psychologists across the U.S. and Canada who have expertise in the psychological impact of disasters on individuals, families and communities. Psychologists interested in volunteering can visit the Disaster Resource Network page on the APA website for more information. <http://www.apa.org/practice/programs/drn/index.aspx>

One of 2008 APA President Alan Kazdin's initiatives was to establish a task force on psychology and global climate change. Access their report and read copies of their articles in the May-June 2011 issue of the *American Psychologist*[®]. Gifford, R. (2011). The dragons of inaction. *American Psychologist*, 66(4), 290-302.

Stern, P. C. (2011). Contributions of psychology to limiting climate change. *American Psychologist*, 66(4), 303-314.

Swim, J. K., Stern, P. C., Doherty, T. J., Clayton, S., Reser, J. P., Weber, E. U., Gifford, R., & Howard, G. S. (2011). Psychology's contributions to understanding and addressing global climate change. *American Psychologist*, 66(4), 241-250.

Doherty, T. J., & Clayton, S. (2011). The psychological impacts of global climate change. *American Psychologist*, 66(4), 265-276.

The Impact of **Facebook** on psychosocial health



Research into the positive and negative aspects of social media use on psychosocial health and well-being

By Practice Research and Policy staff

Created in 2004, Facebook is the social media phenomenon that allows its users to create a profile, share photos, and keep in touch with friends, family and colleagues. As of December 2014, more than 1.39 billion individuals used Facebook at least once every 30 days (Facebook, 2014). With frequent reports in the news regarding both the positive and negative impacts of social media use on psychosocial health and well-being, it is important that psychologists acquire a comprehensive picture of the existing research on Facebook.

The first group of studies highlighted in this research roundup examined the impact of Facebook exposure on a variety of psychological outcomes including body image, depressive symptoms and self-esteem in young adults, and investigated whether degree and direction of social comparison could explain these relations. The last study explored Facebook's utility as a tool to promote well-being in socially anxious individuals.

In addition to reviewing the following research summaries, psychologists are encouraged to explore the literature more completely to determine what may be useful to them in practice.

The impact of Facebook on Psychosocial Health, continued

Fardouly, J., Diedrichs, P.C., Vartanian, L.R., & Halliwell, E. (2015). Social comparisons on social media: The impact of Facebook on young women's body image concerns and mood. *Body Image*, 13, 38-45. DOI: 10.1016/j.bodyim.2014.12.002.

Steers, M.N., Wickham, R.E., & Acitelli, L.K. (2014). Seeing everyone else's highlight reels: How Facebook usage is linked to depressive symptoms. *Journal of Social and Clinical Psychology*, 33(8), 701-731. DOI: 10.1521/jscp.2014.33.8.701.

Vogel, E.A., Rose, J.P., Roberts, L.R., & Eckles, K. (2014). Social comparison, social media, and self-esteem. *Psychology of Popular Media Culture*, 3(4), 206-222. DOI: 10.1037/ppm0000047.

Summaries

Fardouly et al. (2015) conducted a cross-sectional study of 112 young adult females from the United Kingdom. Participants were randomly assigned to one of three groups – browsing either through Facebook, a fashion magazine website or an appearance-neutral control website for 10 minutes and they could view any content they wished on the assigned website.

Participants completed measures of state negative mood and body dissatisfaction, social comparison tendencies and the Self-Discrepancy Index (SDI; Dittmar et al., 1996). The SDI asked participants to describe three aspects of themselves that they would ideally like to change and rated how different they wished to be, as well as the importance of this change to them. Responses on the SDI were coded by the authors as pertaining to either: (1) weight and shape, or (2) face, hair and skin. Results showed that women who briefly viewed Facebook reported being in a more negative mood relative to the control condition. Although there was no difference between groups in body dissatisfaction ratings or weight- and shape-related discrepancies, women in the Facebook group who reported often comparing themselves to others were more likely to wish to change the appearance of their face, hair or skin.

Steers et al. (2014) conducted two studies to examine whether an individual's tendency to make social comparisons underlies the relationship between Facebook use and depressive symptoms. In the first study, 180 ethnically diverse undergraduate students (141 females) completed an online measure of general social comparison tendencies on Facebook and a measure of depressive symptoms, and they reported their average daily Facebook usage.

The impact of Facebook on Psychosocial Health, continued

The more time that males and females spent on Facebook, the more depressive symptoms they reported and the more they tended to compare themselves to others.

Analyses revealed that the more time that males and females spent on Facebook, the more depressive symptoms they reported and the more they tended to compare themselves to others. The more that males, but not females, compared themselves to others, the more depressive symptoms they reported.

In the second study, a separate sample of 154 undergraduates (95 female) spent two weeks recording the frequency and length of their Facebook usage and completed measures assessing depressive symptoms and three types of social comparison tendencies: general, upward and downward. Upward and downward social comparisons refer to a tendency to compare oneself to others who appear to be doing better and worse off than themselves, respectively, for purposes of self-evaluation.

The authors found that the more time that individuals spent on Facebook, the more likely they were to make general or upward comparisons and the less likely they were to make downward comparisons. Greater engagement in any type of social comparison was associated with more depressive symptoms.

Vogel et al. (2014) conducted two studies exploring the associations between exposure to Facebook, types of social comparison and changes in self-evaluation. In the first study, 145 ethnically diverse undergraduate students (106 female) completed computerized questionnaires assessing frequency of Facebook use, social comparison (upward or downward) processes used while on Facebook, and self-esteem. Results illustrated that those who used Facebook more frequently had lower trait self-esteem and were more likely to report making upward and downward social comparisons. Further analyses demonstrated that upward, but not downward, social comparison explained the association between Facebook use and trait self-esteem.

In the second study, 128 undergraduates (94 female) were randomly assigned to view one of four target Facebook profiles for three minutes and were instructed to evaluate themselves and the target individual immediately afterward. The authors manipulated the personal content (for example, photos

The impact of Facebook on Psychosocial Health, continued

and statuses posted by the target) and the social content (such as comments and “likes” provided by the target’s social network) of the target’s profile to be of either upward or downward comparative nature. Findings showed that people who viewed a target profile with upward social (such as a high activity social network) or upward personal (such as positive photos and statuses) content had lower reported self-esteem and more negative self-evaluations.

Clinical Implications

These three articles demonstrate that comparing oneself to others on Facebook can be associated with multiple negative outcomes, including low self-esteem, depressive symptoms and dissatisfaction with one’s appearance. Although Steers et al. (2014) found a negative relationship between Facebook use and downward social comparisons and Vogel et al. (2014) found a positive relationship, the research illustrates that engagement in social comparison of any kind while on Facebook may be harmful to one’s psychosocial health. This could be explained in part by the fact that individuals can carefully select the photos and information they choose to display on Facebook, and so people end up comparing their own lives to inaccurate representations of others’ lives.

Psychologists may wish to pay close attention to the Facebook use habits of clients who struggle with their body image, particularly women with such problems as eating disorders or body dysmorphic disorder. Psychologists may also want to provide therapeutic tools that help combat feelings of self-dissatisfaction when using Facebook or other social networks, especially for clients who often compare themselves to others. While social connection is beneficial for all, exploring opportunities to connect outside of social media for those who are depressed may be especially important.

Psychologists may wish to pay close attention to the Facebook use habits of clients who struggle with their body image.

Determining whether Facebook (or other social media) usage is beneficial or harmful for an individual may be an important discussion topic in therapy. Although Facebook is often perceived by individuals with low self-esteem as a safe environment for self-expression, psychologists may wish to consider the possibility that Facebook use perpetuates a vicious cycle for these individuals; clients with low self-esteem may use Facebook to receive social support but in doing so expose themselves to upward social comparisons, further damaging their self-esteem and increasing their need for support from others.

The impact of Facebook on Psychosocial Health, continued

Indian, M., & Grieve, R. (2014). When Facebook is easier than face-to-face: Social support derived from Facebook in socially anxious individuals. *Personality and Individual Differences*, 59, 102-106. DOI: 10.1016/j.paid.2013.11.016.

Summary

Indian & Grieve (2014) examined 299 young adult Facebook users (257 female) to see whether perceptions of social support on Facebook were related to subjective well-being in those who have varying levels of social anxiety. Participants were split into low- and high-social anxiety groups based on their score on a measure of social fears, and everyone completed questionnaires assessing perceived social support offline and on Facebook, and well-being. Analyses revealed that, together, offline and Facebook social support predicted well-being for both social anxiety groups. Social support through Facebook was a relatively better predictor of well-being only for individuals with high social anxiety.

Clinical Implications

This article suggests that individuals use both offline and online social support to enhance personal well-being, but that for those who experience high levels of social anxiety, social support on Facebook is a more important predictor of well-being than is offline social support.

Psychologists may wish to encourage socially anxious clients to consider Facebook as a less overwhelming way to connect with others and potentially even as a strategy to confront social anxiety, but they should be cautious not to promote long-term avoidance of face-to-face interactions in lieu of online ones. Psychologists may also want to consider Facebook as a social support tool for those who are unable to engage socially with others in person for reasons other than social anxiety (such as distance or physical limitations). ■

The effects of **Cancer** on sexuality and quality of life



Research into the impact that a diagnosis of cancer and subsequent treatment can have on sexual functioning and overall well-being.

By Practice Research and Policy staff

Adolescents and young adults increasingly are diagnosed with cancer, while advances in treatment have increased rates of survival across a wide range of cancer diagnoses. Researchers increasingly focus on anxiety and depression, as well as how both physical and psychological effects impact cancer patients' social well-being – for example, sexual functioning, sense of intimacy/isolation, and overall quality of life.

The following studies examined disruptions in sexual functioning and quality of life as a result of a cancer diagnosis and treatment as differentially experienced based on demographic factors such as age and gender, with particular attention paid to female breast cancer survivors.

In addition to reviewing the following research summaries, psychologists are encouraged to explore the literature more completely to determine what may be useful to them in practice.

Geue, K., Sender, A., Schmidt, R., Richter, D., Hinz, A., Schulte, T., Brahler, E. & Stobel-Richter, Y. (2014). Gender-specific quality of life after cancer in young adulthood: A comparison with the general population. *Quality of Life Research*, 23(4) 1377-1386. DOI: 10.1007/s11136-013-0559-6.

Summary

The authors conducted a cross-sectional study of 117 adolescent and young

The effects of cancer on sexuality and quality of life, continued

adult cancer patients between the ages of 18 and 39 years old who had recently completed acute medical treatment. Participants had been given a cancer diagnosis no more than five years prior to the survey, were at least 15 years of age at the time of diagnosis and were enlisted from medical facilities. For male participants, the most frequent diagnosis was hematologic neoplasm (55 percent) followed by testicular cancer (27.5 percent). The majority of female participants had a diagnosis of breast cancer (53.3 percent) or hematologic neoplasm (26 percent). Chemotherapy was the most commonly received treatment among all participants (82.9 percent). A representative comparison sample of participants at least 14 years old without a cancer diagnosis was also recruited.

Participants completed the European Organization for the Research and Treatment of Cancer Quality of Life Questionnaire-Core 30 (EORTC QLQ-C30), a self-report measure created specifically for cancer patients. It contains five function scales (physical, role, emotional, cognitive and social), three symptom scales (fatigue, nausea and pain), six single-item questions (dyspnea, insomnia, loss of appetite, constipation, diarrhea and financial difficulties), and one global quality of life (QoL) scale. Higher scores on the function scales demonstrate higher levels of functioning, while higher scores on symptom/single-item scales illustrate more marked symptoms.

Adolescent and young adult participants with a cancer diagnosis reported a substantially reduced quality of life compared to the representative group without a cancer diagnosis.

Adolescent and young adult participants with a cancer diagnosis reported a substantially reduced quality of life compared to the representative group without a cancer diagnosis. Specifically, participants with a cancer diagnosis reported worse emotional and social functioning, and greater fatigue and financial difficulties. Compared to male participants in the study, female participants with a cancer diagnosis reported poorer quality of life, with significant impairments in cognitive functioning.

The effects of cancer on sexuality and quality of life, continued

Krok, J., Baker, T. & McMillan, S. (2013). Sexual activity and body image: Examining gender variability and the influence of psychological distress in cancer patients. *Journal of Gender Studies*, 22(4), 409-422. DOI: 10.1080/09589236.2012.708828.

Summary

This study examined 232 adult cancer patients receiving outpatient treatments and how their illness affects their body image and sexual activity. All participants had a diagnosis of cancer in any stage. Lymphoma (29 percent) and lung cancer (15 percent) were the most common forms of cancer in the male participants, while breast cancer (29 percent) and lymphoma (17 percent) were the most frequent types in the female participants.

Psychological distress, along with the severity and frequency with which common symptoms of cancer contribute to distress, was measured with the Memorial Symptom Assessment Scale (MSAS) psychological distress subscale (PSYCH) examining worry, nervousness and difficulty concentrating. Two single-item questions to appraise body image and issues with sexual interest and activity were added. Higher scores were equated with more severe symptoms.

The Eastern Cooperative Oncology Group Performance Status (ECOG-PS) measure and single-item questions that focused on the site, stage and pain level of the cancer were used to assess participants' physical health.

While both male and female participants reported psychological distress, women more frequently experienced problems with concentration, nervousness, sadness, worry and dissatisfaction with body image. Men expressed greater severity of psychological distress symptoms, although the difference was not statistically significant. No significant differences were seen between men and women in regard to sleeping difficulty, irritability or problems with sexual interest and activity. Both men and women cited a lack of sexual interest and activity as the most serious psychological symptom, especially among younger adults and participants who were married.

While both male and female participants reported psychological distress, women more frequently experienced problems with concentration, nervousness, sadness, worry and dissatisfaction with body image.

The effects of cancer on sexuality and quality of life, continued

Ussher, J., Perez, J. & Gilbert, E. (2012). Changes to sexual well-being and intimacy after breast cancer. *Cancer Nursing*, 35(6), 456-465. DOI: 10.1097/NCC.0b013e3182395401.

Summary

The sexual well-being of individuals with breast cancer was investigated, as well as the quality of intimacy with their partners. An online survey was completed by 1,965 mostly female participants. The majority of participants reported that their breast cancer or treatment for breast cancer negatively impacted their sexual well-being. The three most frequently reported disruptions included declines in the frequency of sex (78 percent), energy for sex (76 percent) and sexual arousal (74 percent). When asked why breast cancer and/or breast cancer treatment affected their sexual well-being, participants cited tiredness (71 percent), vaginal dryness (63 percent), hot flashes (51 percent) and feeling unattractive (51 percent) as the most common reasons. Twenty-four percent reported that their breast cancer had “dramatically” affected their sexual relationship.

In response to a number of open-ended questions answered by a subsample of participants, 35 percent described their sex lives after battling breast cancer as “depressing” and “devastating.” Many of the respondents struggled with feelings of loss due to changes in their relationship with their partner. Feelings of unattractiveness and loss of femininity were cited as being detrimental to sexual well-being by nearly 20 percent of participants. Moreover, participants expressed fear that changes in their own sexual well-being were negatively impacting the sexual well-being of their partners.

Safarinejad, M., Sharfiei, N. & Safarinejad, S. (2013). Quality of life and sexual functioning in young women with early-stage breast cancer 1 year after lumpectomy. *Psycho-oncology*, 22(6), 1242-1248. DOI: 10.1002/pon.3130.

Summary

Women with a diagnosis of breast cancer (n=186) who had undergone a lumpectomy at least one year prior to recruitment were surveyed on quality of life (QoL), sexual functioning and self-esteem and compared to an age-matched group of women without breast cancer (n=204). Participants were between the ages of 25 and 45.

Participants completed the Female Sexual Function Index to measure sexual

The effects of cancer on sexuality and quality of life, continued

dysfunction, the Short Form-36 Health Survey to assess QoL and the Rosenberg Self-Esteem Questionnaire. Additionally, participants were asked a single item assessing their level of sexual satisfaction.

Female sexual dysfunction (FSD) in the participants with breast cancer was more common than in participants without cancer (52.5 percent vs. 28.7 percent). Desire, arousal, orgasmic, pain and lubrication disorders were all more significantly frequent in participants with breast cancer than in the control group, with lubrication and sexual satisfaction being the most greatly impacted. Patients who received radiotherapy, chemotherapy and hormone therapy treatment were most likely to be sexually dissatisfied and struggle with lubrication disorder. Impairments, however, were not related to differences in self-esteem. Finally, satisfaction with sex life was significantly correlated with overall quality of life ($p < .001$).

Clinical Implications

Even after the completion of treatment, adolescents and young adults with cancer diagnoses report significantly impaired quality of life. Addressing the expectations and concerns about the impact of cancer diagnosis and treatment on quality of life for adolescent and young adult patients, especially in female patients, might help to reduce the negative impact on their social and emotional well-being, as well as aid in readjustment to life after cancer. For example, recommending that both males and females in treatment join a support group with other young cancer patients may help reduce social isolation through the sharing of similar experiences.

Individuals with cancer still desire intimacy and sexual relationships yet find it difficult due to lack of interest, changes in their body, low energy or other challenges. Yet frequently, cancer treatment does not focus on this aspect of life. Recognizing these desires and challenges in their patients provides an important avenue for psychologists to have an impact on improving psychosocial quality of life. Psychologists may want to engage their patients in discussions regarding sexual well-being and partner intimacy among those receiving cancer treatment, as well as help those individuals to develop strategies to raise concerns with partners and physical health care providers. By routinely assessing disruptions in body image and problems with sexual interest and activity in patients who have been diagnosed with cancer, psychologists are afforded the opportunity to improve care by addressing concerns, normalizing experiences and helping individuals find new approaches to meeting needs.

Psychologists can be most helpful to patients by being knowledgeable about how physical and psychological side effects of cancer treatment in turn negatively impact quality of life and sexual functioning, and how to assist their patients in addressing these experiences in treatment. ■

Mindfulness-Based Stress Reduction



Recent research related to moderators of mindfulness-based stress reduction (MBSR) intervention effectiveness.

By Practice Research and Policy staff

Mindfulness-based stress reduction (MBSR) is a therapeutic intervention that teaches individuals how to increase their mindfulness, or their ability to attend to their moment-to-moment emotional, cognitive and physical experiences in a nonjudgmental fashion, through yoga and meditation. Individuals progressively learn to become more aware of the connection between their mind and body and can come to understand how everyday subconscious thoughts and behaviors underlie their emotional, physical and spiritual health.

Originally created by Jon Kabat-Zinn, PhD, in 1979, this intervention, which typically lasts eight weeks but can be shortened, has since been used with both clinical and nonclinical populations of adults to reduce stress and anxiety, chronic pain, high blood pressure, sleep disturbances and other health concerns.

Over the past decade, research on the topic of mindfulness and the positive benefits associated with its practice, such as increased life satisfaction and reductions in perceived stress, has increased dramatically. However, research has also shown that MBSR is more effective for some individuals than others (Cordon, Brown, & Gibson, 2009). Understanding why these individual differences exist will help clinicians individually tailor MBSR programs to maximize efficacy for their clients. The following research summaries examine moderators of MBSR effectiveness. Specifically, discomfort with emotion, depressive symptom severity, age and trait mindfulness were analyzed.

Mindfulness-based stress reduction, continued

In addition to the research summaries that follow, psychologists are encouraged to explore the literature more completely to determine what may be useful to them in practice.

Sass, S. M., Berenbaum, H., & Abrams, E. M. (2013). Discomfort with emotion moderates distress reduction in a brief mindfulness intervention. *International Journal of Behavioral Consultation and Therapy*, 7(4), 24-27.

Summary

The authors sought to examine whether discomfort with emotional experience moderated distress reduction from pre- to post-MBSR intervention. Discomfort with emotional experience has been previously associated with psychopathology (for example, generalized anxiety disorder and depression). Twenty-four adults, primarily Caucasian females, completed measures of discomfort with emotion and psychological distress one week before the first session (baseline) and completed the latter measure again immediately before the final session of a brief MBSR program. The MBSR program consisted of five sessions over a period of two-and-a-half weeks. Only individuals who had moderate scores on the measure of distress were included in the study.

Results revealed that individuals lower in discomfort with emotion showed a sharper decrease in psychological distress from baseline to the final MBSR session than those who self-reported greater discomfort with their emotions.

Gallegos, A. M., Hoerger, M., Talbot, N. L., Moynihan, J. A., & Duberstein, P. R. (2013). Emotional benefits of mindfulness-based stress reduction in older adults: The moderating roles of age and depressive symptom severity. *Aging & Mental Health*, 17(7), 823-829. DOI: 10.1080/13607863.2013.799118.

Summary

Framed within the Motivational Theory of Life-Span Development, the authors investigated whether depressive symptom severity and age of older adults moderated changes in positive affect from pre- to post-MBSR intervention. Two hundred older adults were randomly assigned to receive MBSR treatment or to be a waitlist control. Participants completed two measures of depression and a measure of positive affect at baseline, immediately after the eight-week MBSR intervention, and at a six-month follow up assessment. Participants over 70 years

Mindfulness-based stress reduction, continued

of age were considered old-older adults and those under 70 years were considered young-older adults.

Change in positive affect from baseline to treatment completion and from baseline to the six-month follow up was examined using multiple regressions. Results suggested that MBSR was most effective for old-older adults with lower baseline depressive symptoms, while old-older adults with higher baseline depressive symptoms reported the least improvement. There were no significant effects of age, baseline depressive symptoms or their interaction on positive affect in the waitlist control group.

Shapiro, S. L., Brown, K. W., Thoresen, C., & Plante, T. G. (2011). The moderation of mindfulness-based stress reduction effects by trait mindfulness: Results from a randomized controlled trial. *Clinical Psychology, 67*(3), 267-277. DOI: 10.1002/jclp.20761.

Summary

The authors sought to investigate whether levels of trait mindfulness moderated the benefits of a MBSR intervention compared to a waitlist control group. Trait mindfulness here is defined as “a tendency to attend to present moment experiences in everyday activities.” The study utilized a longitudinal randomized controlled trial in which outcomes were assessed in a sample of 30 undergraduate students at pre-intervention, immediately post-intervention, and at two- and 12-month follow-up points. Participants completed self-report measures on mindfulness, rumination, perceived stress, subjective well-being, self-compassion, hope, empathy and forgiveness of others at all time points.

Participants completed self-report measures on mindfulness, rumination, perceived stress, subject well-being, self-compassion, hope, empathy and forgiveness of others at all time points.

Results revealed that, relative to controls, the MBSR intervention was associated with increased mindfulness, interpersonal (for example, empathy) and subjective well-being at the two-month follow-up. In addition to the benefits listed above, at the 12-month follow-up, MBSR was associated with larger increases in psychological resilience (for example, hope) and decreases in perceived stress.

Mindfulness-based stress reduction, continued

Furthermore, trait mindfulness moderated MBSR intervention effects, such that MBSR participants with higher levels of pre-intervention trait mindfulness documented larger increases in mindfulness and subjective well-being, steeper declines in perceived stress and higher levels of hope and empathy after one year.

Clinical Implications

Psychologists may wish to evaluate their client's level of discomfort with emotions before recommending MBSR as those who experience less discomfort with emotional experiences appeared to benefit more from the MBSR intervention. Although recent research suggests that shortened MBSR is no less effective than longer formats in lessening psychological distress, it is possible that individuals high in emotional discomfort may benefit more from a longer intervention or an initial focus on emotion tolerance prior to MBSR. If recommending MBSR, therapists may want to help foster comfort with emotions in their clients through activities designed to increase emotional intelligence.

While older adults might show some benefit from MBSR, psychologists may wish to assess the person's depressive symptoms regardless of clinical diagnosis in order to maximize the effectiveness of MBSR, as age and depressive symptom severity appeared to interact in predicting MBSR intervention effectiveness.

If recommending MBSR, therapists may want to help foster comfort with emotions in their clients through activities designed to increase emotional intelligence.

MBSR participants fared better overall than waitlist controls, indicating that trait mindfulness is not necessary to benefit from MBSR. However, individuals entering an MBSR intervention with higher levels of trait mindfulness are more likely to experience significant changes in multiple psychological domains. Psychologists may wish to assess their client's level of trait mindfulness in order to better predict the extent to which he or she will benefit from the program. ■

Stress and Physical Health



The correlation between stress and physical health, with practical implications for better meeting the needs of certain patient groups

By Practice Research and Policy staff

Findings from APA's annual *Stress in America*™ survey highlights the connection between prolonged stress and physical health, and suggests that the U.S. health care system is not meeting specific patient needs related to behavioral health that could aid in the prevention and management of chronic illness. This issue of *Research Roundup* addresses the correlation between stress and physical health in youth, adults and caregivers and provides practical implications for better meeting the needs of certain patient groups.

In addition to reviewing the following research summaries, psychologists are encouraged to explore the literature more completely to determine what may be useful to them in practice.

Keller, A., Litzelman, K., Wisk, L., Maddox, T., Cheng, R. E., Creswell, P., & Witt, W. P. (2012). Does the perception that stress affects health matter? The association with health and mortality. *Health Psychology, 31*(5), 677-684. DOI: 10.1037/a0026743.

Summary

This longitudinal study, consisting of more than 28,000 participants, examined how physical health is related to psychological distress. Participants were

Stress and physical health, continued

selected randomly from the Sample Adult Core (SAC) component of the National Health Interview Survey (NHIS).

This study explored the connections between amount of stress, the perception that stress affects health, and health and mortality outcomes. One third of participants reported that stress affected their health some or a lot. Over half reported experiencing a moderate or higher amount of stress in the past year. Higher levels of reported stress were linked to lower reported health status and more psychological distress. Also, those who perceived a connection between stress and health were more likely to report poorer health.

Stress and the perception that stress affects health did not independently predict mortality but in combination they did. Those who perceived stress impacting their health and reported “a lot” of stress had a 43 percent increase in risk of premature death.

Gana, K., Bailey, N., Saada, Y., Joulain, M., Trouillet, R., Herve, C., & Alaphilippe, D. (2013). Relationship between life satisfaction and physical health in older adults: A longitudinal test of cross-lagged and simultaneous effects. *Health Psychology*, DOI: 10.1037/a0031656.

Summary

Some evidence suggests subjective well-being affects health, that health impacts subjective well-being, or that they are interrelated. This study used prospective data from 899 individuals ranging in age from 64 to 97 who had completed a series of assessments five separate times over an 8-year time span. For older adults, better physical health was linked to life satisfaction, suggesting positive mental well-being follows maintenance of physical health.

The data showed that poor health largely foreshadowed lower levels of life satisfaction; however, life satisfaction did not necessarily show the same relationship with status of health. While life satisfaction has been known to correlate with better health, this data suggests that the direction of the relationship is health status to life satisfaction, and life satisfaction does not predict physical health.

Stress and physical health, continued

Raposa, E. B., Hammen, C. L., Brennan, P. A., O'Callaghan, F., & Najman, J. M. (2013). Early adversity and health outcomes in young adulthood: The role of ongoing stress. *Health Psychology*, No pagination specified. DOI: 10.1037/a0032752.

Summary

A community sample of 705 mother-child pairs was followed from childbirth to age 20 years with data collection at regular intervals. Mothers' reports of early adverse conditions from birth to age 5 were related to the presence of chronic disease in the child at age 15, depression from ages 15 to 20 and physical health at age 20.

Children who experienced early adversity had elevated risk for social and nonsocial stress at age 15, as well as depression between ages 15 and 20. Additionally, social and nonsocial stress both directly affected physical health at age 20 and also indirectly through increased risk for depression.

Mausbach, B. T., Chattillion, E., Roepke, S. K., Ziegler, M. G., Milic, M., von Känel, R., Dimsdale, J. E., Mills, P. J., Patterson, T. L., Allison, M. A.; Ancoli-Israel, S., & Grant, I. (2012). A longitudinal analysis of the relations among stress, depressive symptoms, leisure satisfaction, and endothelial function in caregivers. *Health Psychology*, 31(4), 433-440.

Summary

Caregivers of individuals with Alzheimer's disease face numerous stressors and challenges. One hundred sixteen caregivers were assessed three times at yearly intervals regarding stress, depressive symptoms, leisure satisfaction and endothelial function (measured by brachial artery flow-mediated dilation, or FMD).

Time and the number of years of caregiving were significant predictors of FMD (which in turn appears to be linked to future vascular pathology), suggesting that FMD was worse the longer a participant was a caregiver (including prior to the start of the study). Additionally, increased FMD function was positively related to leisure satisfaction but negatively related to stress, whereas depressive symptoms were not associated with FMD.

Stress and physical health, continued

Clinical Implications

The large portion of individuals reporting a moderate or higher amount of stress in the past year, and the fact that the perception that stress impacts health appears to be linked to health status, suggests that psychologists may want to address stress using multiple strategies, including stress reduction, management of perceptions of stress, and increasing positive healthy behaviors.

Psychologists working with older adults may wish not only to address concerns individuals raise in regard to life satisfaction but also to encourage older adults to care for their physical health and make efforts to increase their healthy behaviors in order to promote overall psychological well-being.

Children exposed to early stressors and adversity are at increased risk for poorer outcomes later in life. Opportunities to provide support to young children and their parents through consultation in pediatric clinics, schools or other community settings may serve to prevent later depression and health problems. Helping families exposed to early adversity develop resilience may have long-term benefits.

Supporting caregivers in their roles and facilitating their ability to care for their own health is beneficial for both caregiver and care recipient. Interventions that help caregivers increase pleasurable activities and positive relationships (some of the behavioral correlates of depression) may not only reduce stress but might also improve cardiovascular outcomes in caregivers. ■

Supporting caregivers in their roles and facilitating their ability to care for their own health is beneficial for both caregiver and care recipient.

Prepared by the

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