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Contents

President's Message

Best Advice

Robert L. Leahy, *American Institute for Cognitive Therapy*

A few months ago I raised a question on the ABCT list serve that asked participants to share the best advice that they had received in their clinical training. The response was the largest for any topic in the history of the list serve. I think that this reflects two important factors. First, that there is a collective wisdom among our members that is partly a consequence of our mentors, who still affect how we think and what we do. And, second, I think it reflects our gratitude. We didn't get here on our own. We are, indeed, a product of our environments. So, I thought I would devote my last presidential column to you—our members—and to those mentors whose wisdom still guides us. In order to give credit to the source of the quotes, I have put the name of the ABCT member in parentheses.

I know that when we were all learning CBT we wanted to jump ahead and innovate. That is why I found Ray DiGiuseppe's comment so instructive: "My supervisor at the time, Howard Kassinove, told me that I had to stick to a treatment plan for 10 weeks before I could change it. In supervision, I could discuss how I implemented the plan and the techniques, but he would not entertain any changes until I stuck with the plan for a period of ten weeks. My clients did improve more than when I jumped from plan to plan." David D. Burns would often say to me in supervision, "Tell me the five techniques that you have used and why they haven't worked." And Aaron Beck taught me the importance of the vertical descent technique—to

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keep asking, "If that is true, what does it mean to you?" This has uncovered intriguing and idiosyncratic meanings that have been helpful in therapy. Going back to the basics is the best foundation for good CBT.

It's important to keep the behavioral model in mind (which sounds like a cognitive therapy pun). In any case, a couple of excellent points were made on this. Randye Semple heard the following advice: "In the absence of clear and concrete behavioral examples, don't ever assume that you know what your patient is talking about." I agree with this since I never know what the patient is talking about until I get the behavioral referents—the more specific and concrete the better. Further, Deirdre Waters carries the behavioral model a step forward with, "Never judge a behavior without thoroughly evaluating the context in which it occurs." Indeed, when I was learning child behavior therapy, Steve Gordon said, "Pay attention to the consequences. What is reinforcing this behavior?"

Several people commented on the importance of the therapeutic relationship—even using the dreaded word "countertransference" (a word that I love to use). Perhaps the therapeutic relationship begins with the Golden Rule, as exemplified in the advice that David Wall received: "To do unto others as I would have them do unto me—to treat people the way I would want to be treated, regardless of my shortcomings and/or my mood at any given moment." There is a poetic quality in how Roger Lewin heard this: "A psychiatrist affiliated with Sheppard Pratt for years said, 'The most common boundary violation in psychotherapy is excessive distance.'" Of course the therapeutic relationship has reciprocal causality. This may not have been the point that B. F. Skinner was trying to make, but we can thank Thomas Brian for mentioning it: "B. F. Skinner said the rats and pigeons conditioned him at least as much as he conditioned them."

We all want to do the best we can, but we are often stuck at an impasse. What advice has helped us in these situations? Part of the wisdom is in accepting our limitations as therapists. Fred Penzel commented that his supervisor told him, "You cannot help everyone." He then indicated, "It has always kept me humble and realistic about what I can and cannot do. The one other accompanying piece of advice I have always found valuable was the concept that while I was responsible for planning and disseminating treatment to patients, I could not hold myself responsible if they ultimately chose to not follow it. It is important to know whose responsibility is whose, and to never confuse the two. This has always kept me from getting burned out." Similarly, Brenda Wolf got the following advice about limitations: "When, at the end of the session, I am more exhausted than the patient, the wrong person is doing the work." Another important recognition of the role of the patient and the role of the therapist is reflected in this one from Patrick McGrath: "Dr. Joel Milner told me that we can never make a patient do anything. We can offer suggestions or interventions, but we do not make them do anything—it is always their choice."

Change is what we aim for, but validation is part of all good therapy. It's important that we not miss this point. Sometimes we are eager to jump ahead and give the patient as many techniques that we can as quickly as possible. I have learned the hard way (through failure—a consequence worth remembering) that if a patient doesn't feel heard, they won't hear me. Several people commented on the importance of being able to listen and to reward the patient. Carol Friedland remembers Ray DiGiuseppe saying, "If your patient wants vanilla ice cream, give them vanilla ice cream (at least in the first session)." Carol says that her take-away on this was that "if you don't listen to what your new patient is struggling with in that first session, there will not be a second session." Good advice to listen to. And to reinforce the idea of listening, I particularly liked the following from Patrick B. McGrath: "There is nothing wrong with silence."

Setbacks are part of the process of change. Marv Goldfried once gave Rochelle Anderson Robbins the following sage advice: "What looks like a setback, might just be an opportunity." Lynn McFarr recalls the wisdom of Marsha Linehan in reaching an impasse: "If you can't help them fix it right then, just be near. We'll figure it out." Lynn says that this validating comment is something she uses constantly. Lynn McFarr was generous to remember my comments about the inevitability of suffering. When a patient thought she should get over her pain after a loss of someone in her life, she recalled me saying the following: "I actually hope you never 'get over' (that enormous loss). It is not something to 'get over.' I hope that you have a life that is so full of meaning that you can hold that loss in it."

But validation is not enough. Debra Kaysen recalls this advice from Patricia Resick: "You can't help your clients if you're stuck down there in the pain with them. You have to stay connected without losing your objectivity."

Recognizing the difficulties in clinical and academic life, Jonathan Abramowitz quotes his mom (who apparently is quoting Nietzsche from *Twilight of the Idols* [1888]): "When the woman I had dated all through college dumped me during senior year for an older guy (a medical student, if I recall), my mother told me (in the midst of my self-pity party) that 'whatever doesn't kill you makes you stronger.'" It is nice to know that a leading existentialist is behind the wisdom of a leading cognitive-behavioral therapist.

But sometimes nothing is better than something (which can backfire). Interesting that this came from a leading behaviorist. Joseph Wolpe would always say frequently: "When you are in doubt, do nothing" (Felicitas Kort).

There were a couple of pieces of advice attributed to others, but whose sources remain a mystery. I thought you might find these two quite illuminating: "The unexamined life is not worth living" (Socrates) and "The unlived life is not worth examining" (Koop). Perhaps this is the dialectic implied in the hyphenated cognitive-behavioral identity. The importance of living a life of meaning and knowing the meaning of life is reflected in what Albert Ellis once said: "There is an art in knowing what is a big deal in life and what is not. Most people do not know the difference."

And, needless to say, none of this column would have been possible without the participation of our members. So, it's only appropriate to quote Suzanne Davino here: "Especially after reading this thread, I think the best advice I've ever gotten was to join ABCT. Thanks to all!"

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Research Forum

Mobile Telephones and Psychotherapy: I Capability and Applicability

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Mobile telephone technology has become commonplace around the world. As with many new technologies such as computers and the Internet, mobile telephones have been enlisted to assist with psychological and medical interventions. The current article briefly reviews mobile telephone technology applications in clinical psychology, focusing on the latest developments in this technology, and how they may be applied to psychotherapy. It extends on previous work (e.g., Boschen & Casey, 2008) by examining the ever-expanding list of features that are included in current and future mobile telephone handsets, and how these features may enable more effective psychological interventions.

Mobile telephones are now commonplace in most areas of the world. In 2007 there were over 250 million handsets in use in the United States (Central Intelligence Agency, 2008). By the end of 2008 there were over 4 billion mobile telephone subscriptions worldwide (International Telecommunication Union, 2009). In both the developed and developing world the number of mobile telephone subscriptions has gradually risen over the last 10 years, reaching 100.3 and 39.2 subscriptions per 100 people, respectively. The cost of basic handsets has continued to drop, and coverage of the mobile telephone networks has continued to expand. Mobile telephony is increasingly replacing fixed-line telephones for many applications. Mobile telephone technology has been the single most rapidly embraced technology in world history (International Telecommunication Union, 2009).

Advantageous Mobile Telephone Attributes

Despite the ubiquity of mobile telephones, and the computing power they possess, they have not been extensively used in the implementation of psychological and psychiatric interventions (Boschen & Casey, 2008). This is surprising given the many attributes they possess that may assist therapists working with clinical problems. Boschen and Casey summarized a total of 11 specific properties of mobile telephones that made them particularly suitable for use as adjuncts in cognitive behavioral therapy (CBT): Mobile telephones are small and easy to carry, with many people carrying them in their pocket or on their person for most of their waking day; they are a technology that is readily accepted by most people, as evidenced by their rapid market penetration; they are a comparatively low-cost device; they are a device with comparatively low ongoing maintenance costs; they are a device already owned by a large number of people; they are always on in that they continue to operate (and be contactable or able to execute instructions) without user activation or intervention; they are always connected, maintaining communication with their network even when not in use; they are programmable, meaning they are able to run novel applications software, developed for specific purposes by individuals or organizations; they are capable of recording media, including audio, photographs, and in many cases video, as well as being able to play or show these media to the user; they are capable of interacting with the user to allow input of data using a keypad, keyboard, or touchscreen; and they are generally designed to be easy to use for most of the population (Boschen & Casey). In addition to these previously identified attributes, mobile telephones have several other advantageous qualities: Their use attracts no attention, allowing users to interact with a handset without fear of stigma or judgment; they possess significant computing power, allowing development and execution of complex software; and they now exist as a common platform to which additional devices and capabilities can be added (e.g., bar code reader).

Several of these attributes set mobile telephone technology apart from other technologies such as laptop computers. Laptop and desktop computers have significant advantages, such as greater processing power, larger screens, and easier-to-use input devices (full-size keyboards, etc.). They are also, however, limited in several areas in comparison with mobile telephones. While offering some portability, a laptop computer is not as small and lightweight as a mobile telephone. A laptop computer does not offer the same "always on" and "always connected" capability of a mobile telephone. The use of a laptop computer in a public environment (e.g., during an exposure task) is also more conspicuous than using a mobile telephone. Laptop computers do not have the same market penetration as mobile telephones, and are also generally more expensive than most mobile handsets.

Addressing Challenges to Psychotherapy Effectiveness

The ability of mobile telephones to address some of the common challenges to successful implementation of CBT has been discussed by Boschen and Casey (2008). These authors grouped the challenges to successful CBT into three broad categories: difficulties in assessment and monitoring, difficulties in homework adherence, and difficulties in treatment generalization. The gathering of accurate assessment and monitoring data from psychotherapy patients can be difficult for many reasons. When recorded using more traditional pen-and-paper methods, data are often recorded retrospectively, which may compromise accuracy of the information. Also, sampling of data may not be representative if the timing of its collection is patient-initiated (Shiffman & Stone, 1998). Mobile telephones allow for immediate entry of data on patient symptoms and experiences. Device-initiated sampling (either at predetermined or random times) may also allow for gathering of more accurate and representative monitoring data for use in later therapy sessions (Bang, Timpka, Eriksson, Holm, & Nordin, 2007). An example of mobile telephone use to assist in random sampling of assessment data is provided by Axelson et al. (2003), in which the researchers used calls to mobiles to sample mood and activity of their participants.

Homework is recognized as a core element of cognitive behavioral interventions, with significant effects of therapeutic outcome (Burns & Auerbach, 1992; Kazantzis, Deane, & Ronan, 2000; Neimeyer & Feixas, 1990). Despite this, nonadherence to negotiated homework tasks between sessions is a common problem faced by clinicians. Using

a mobile telephone as a reminder to undertake homework tasks may increase adherence. A mobile telephone device may also carry information to remind the patient of the details of the homework tasks, including skills previously learned in face-to-face therapy sessions.

The generalization of treatment effects to outside the consulting room is a further challenge for CBT practitioners. Patients who are able to effectively implement strategies and skills while with the therapist may have more difficulty in doing so between sessions. In many conditions such as exposure therapy, failure to use skills outside the therapy session is associated with increased risk of relapse (Boschen, Neumann, & Waters, 2009). Mobile telephones may assist in this transition in many ways, including allowing telephone contact with a therapist, providing reminders of previously learned skills from therapy sessions, playing of media (e.g., for exposure therapy), or with software that teaches additional skills and strategies. For example, mobile telephones were used by Flynn, Taylor, and Pollard (1992) to assist two individuals with driving phobia to undertake car trips without a therapist present, where communication with the therapist could occur if required.

Capabilities of Current Mobile Telephones

Mobile telephone and electronics technology has developed to a point where a handset is now often capable of many more tasks than simple voice communication. In the short time since the publication of the initial review of mobile telephone capabilities and their potential applications in CBT (Boschen & Casey, 2008), devices have integrated new capabilities such as GPS, accelerometry, and fast, sophisticated Internet browsing, expanding the potential for use in clinical psychology applications. Creative use of mobile telephone technologies allows for novel extensions and modifications of traditional face-to-face cognitive and behavioral interventions (Bang et al., 2007). Each of these technologies, as well as their clinical applications within CBT, is discussed below with a view to demonstrating the many different ways in which these capabilities can be utilized. A summary of these abilities and their applications is provided in Table 1.

Voice Communication

The original application of mobile telephone technology was to allow for convenient mobile voice communication. Mobile voice communication with a therapist allows for therapeutic input and assessment when the patient is away from the consulting room. The therapist may use the telephone to communicate with a patient during an exposure task, as was done by Flynn et al. (1992) with individuals with driving phobia. Mobile voice communication between a patient and therapist also allows for therapeutic input and assessment when the therapist is away from the consulting room. A therapist may communicate with a patient during a car journey between two appointments, for example. Some studies have reported on treatments in which all or part of the intervention is delivered by telephone conversation (e.g., Carlbring et al.; Lovell et al., 2006; Mohr et al., 2005; Taylor et al., 2003). The ability of many current handsets to also allow video calls provides a further channel of communication, allowing the therapist and patient to respond to nonverbal cues.

Text and Multimedia Messaging

Text messaging (also known as Short Message Service or SMS) and the more sophisticated multimedia messaging (MMS) are a standard component of current handsets. SMS and MMS allow the user to send and receive small amounts of text or images from handset to handset almost instantaneously, and at low cost. Therapist-initiated messages can be used to remind the patient to complete a certain task, or to give instructions or information. A degree of interaction is also possible, with SMS messages leading to an appropriate therapist or automated response (e.g., Lukasiewicz et al., 2007). Patient-initiated messages can be used to convey information and assessment data to the therapist, or to request information from the therapist or an automated system. At a more basic level, SMS messages can be used to remind patients of appointments, thus increasing attendance rates (e.g., Foley & O'Neill, 2009; Geraghty, Glynn, Amin, & Kinsella, 2008; Koshy, Car, & Majeed, 2008; Leong et al., 2006). An extensive review of the use of text messaging in behavior change is provided by Fjeldsoe, Marshall, and Miller (2009).

Media Recording and Playback

Using microphones and increasingly high-resolution cameras, today's mobile telephones are capable of recording audio as well as still images and full motion video. Ever-increasing memory capacity allows for storage of large libraries of audio, images,

and video. The ability to record media may be used by a patient to record information about performance of homework tasks (e.g., to record a speech given by the patient as part of an exposure task). Cameras can also be used to capture assessment data, for example, the capture of an image of a meal as a quick, convenient way of monitoring dietary intake (e.g., Kikunaga, Tin, Ishibashi, Wang, & Kira, 2007).

Built-in speakers, headphone output, and dramatic improvements in screen technology also allow for playback of previously recorded media. Photographs, video, and audio recordings can be utilized as exposure stimuli by patients in between consultations. For example, the "loop tape," which has been used to treat intrusive thoughts in obsessive-compulsive disorder (e.g., Salkovskis & Westbrook, 1989), can be replaced with a recording held in the memory of a mobile telephone. This example also highlights how mobile telephones may improve on existing technologies—a mobile phone can be programmed to automatically or randomly commence playback of the intrusive thought, rather than relying on the patient to initiate the playback. Such spontaneous playback is much more similar to the typical experience of individuals with obsessive thoughts, allowing them to practice managing more realistic simulations of their intrusions.

Bluetooth and 802.11 Wireless

Many mobile telephone handsets are now equipped with wireless communication technologies in addition to their cellular radio. Bluetooth is a short-range wireless communications protocol often used for communication between personal computers and peripherals, or between mobile telephones and wireless headsets. Bluetooth also allows for communication between a mobile telephone and nearby personal computer, allowing a patient who has gathered data on their handset to easily and quickly transfer this to the therapist for future examination and analysis. Bluetooth technology can also be used within the consulting office to transmit assessment data between a central server and handheld device (e.g., Kim, Yoo, Park, & Kim, 2007; Murrarapu, 2007).

Many advanced mobile telephones also come equipped with a version of the 802.11 wireless protocol, also known as "wi-fi." Wi-fi technology offers superior range and data transfer speeds, compared to Bluetooth, and also commonly allows for connection to local area networks (LANs) or to the Internet through a nearby wireless router/gateway. This connection capability allows the patient to transfer data from a more remote location, or to transfer larger amounts of data (e.g., audio, pictures, video) in shorter times. Connection via a wi-fi gateway also allows Internet access, the benefits of which are reviewed below.

Email

Many network subscriptions now offer email access, either through access to the cellular network, or through a direct connection to the Internet (see below). Email access allows for messages that are considerably longer than SMS or MMS, and also allows for the potential to attach files with additional data. Email can be used to communicate more detailed, lengthy questions and responses between therapist and patient. The advent of near-instantaneous email methods such as "push email" allows emails to be sent with the same level of instantaneity as SMS, with messages arriving automatically at the recipient's handset without need for them to initiate retrieval from a central email server.

Advanced Input Technology

Modern mobile telephone handsets offer the user a range of methods by which they can input data directly into the device. Simpler handsets may use a traditional keypad, on which the user can input numeric data, alphanumeric data by using combinations or repetitions of certain keys. Many more sophisticated handsets now offer full (albeit small) qwerty keyboards to facilitate easier entry of text. Some popular handsets make use of large touchscreens that are sensitive to either pressure or changes in electrical conductivity that occur when in contact with skin. These touchscreens allow a virtual keyboard to be presented to the user. Touchscreens also allow the data entry method that is presented on screen to be changed as required to facilitate rapid data entry. For example, when a patient is simply required to choose from three options, a single screen with three large virtual buttons can be displayed.

GPS

A significant innovation since the publication of the initial review of mobile telephone use in CBT (Boschen & Casey, 2008) is the incorporation of Global Positioning System (GPS) technology into many handsets. This technology allows the handset to communicate with a collection of satellites

to accurately determine its location anywhere on the globe. The handset can then use this positioning data in a variety of applications. In mobile handsets, GPS data are typically coupled with navigation software to provide a turn-by-turn navigation aid, or to show the user their position on a local map. Although mobile telephone-based GPS has not yet been utilized in CBT research, there are a number of applications that may be considered by future clinicians and researchers. For example, a client with a driving phobia may undertake a homework task in which they attempt to leave home and journey to a certain point outside their normal safety circle. In this example, the handset would not only provide guidance to the destination, but could also record the route taken, and the speed at which the client moved during the journey. Following the exercise, the patient and therapist could review this data, examining points where the patient slowed down, or paused along their journey. The exact duration spent in the exposure location could also be recorded.

Some GPS-equipped handsets also run software that allows for remote retrieval of the handset location using a password transmitted by SMS. With a client's authorization, the therapist could use such remote monitoring to track a client's location during a task. For example, a client with alcohol dependence may identify that immediately after work is a high-risk situation for drinking, in which they are often tempted to go to a certain public bar. The therapist could retrieve their current location using the remote GPS monitoring software, and send a previously agreed SMS if the handset is found to be within a certain range of the bar. A similar approach has already been used to track the location of adolescents, with a view to assessing their movement to specific locales where risky behaviors such as cigarette smoking may take place (Wiehe et al., 2008).

Accelerometers

Some newer mobile telephone handsets incorporate accelerometers to allow the telephone to "know" its orientation and movement in space. This technology is typically used in handsets to allow the screen to automatically switch from portrait to landscape orientation as the user rotates the device. In clinical psychology, accelerometer technology (also known as "actigraphy") has been previously used in various applications such as monitoring overall activity levels (e.g., Yoshiuchi et al., 2006), as well as monitoring sleep patterns (e.g., Sazonov, Sazonova, Schuckers, Neuman, & CHIME Study Group, 2004). In future, the accelerometers in mobile telephones may be employed in similar ways, to measure movement and activity in the user.

Internet Browsing

High-speed Internet communication protocols such as HSDPA, along with the large high-resolution displays on some handsets, allow a mobile handset to operate as an effective mobile Internet browser. The Internet is already established as an effective medium for delivery of automated or therapist-guided cognitive behavioral interventions for many conditions (e.g., Anderssen, 2009; Reger & Gahm, 2009). Giving a patient the ability to access similar websites from their handset, regardless of their current location, opens up many possibilities to expand the use of these established treatments. Patients may, for example, access a website that may assist in managing problem gambling (e.g., Carlbring & Smit, 2008) directly from the gambling venue. Mobile telephones may also be utilized as a high-speed modem for a laptop computer, allowing full access to a website on a PC with a more comfortable sized screen and keyboard.

Web 2.0 and Social Networking

Recent years have seen an explosion in the popularity of social networking Internet sites such as MySpace, Facebook, and Twitter, as well as other sites driven by user-uploaded content such as YouTube. These websites are sometimes collectively known as Web 2.0, referring to a second generation of Internet content that is user-contributed rather than centrally generated. The growth in popularity and influence of Web 2.0 was recognized in the 2006 Time Magazine Person of the Year being awarded to "you" (i.e., the population of Internet users who use and contribute to Web 2.0 webpages; Grossman, 2006). Some newer

TABLE 1. Mobile Telephone Capabilities With Example Clinical Psychology Applications

Technology	Clinical Application
Voice communication	A patient with agoraphobia "reports in" to the therapist while sitting in a shopping centre.
Text messaging	Reminder messages sent by an automated system to a patient to remind them to use cognitive strategies prior to an anticipated stressful event.
Audio recording	Recording of a speech given by a patient as part of an exposure homework task.
Photograph/video capture	Photographing meals as a simple means of recording dietary intake for later analysis.
Media playback	Playback of exposure stimuli such as an audio recording for exposure to obsessions.
Bluetooth	Communication of assessment results from a patient's mobile telephone to a central computer in the therapist's consulting offices.
Internet connectivity	Patient access to existing websites with demonstrated efficacy in dealing with gambling problems.
High-resolution screens	Clear display of video and photographic exposure stimuli.
GPS	Tracking of patient movements, with phone-initiated relapse-prevention software when an individual with an alcohol problem approaches a bar.
Accelerometers	Assessment of activity levels in a patient with depression.
Miscellaneous applications	Use of PDF reader applications to allow patients to read handouts.

mobile telephone handsets come with software applications designed to allow for access to Web 2.0 sites directly from the device. Access to such websites may be used for a variety of therapeutic interventions. For example, social networking websites may be used for members of a therapy group to communicate with each other and their therapist in between group sessions. Clients may obtain exposure stimuli from websites with archives of video content such as YouTube: A client with emetophobia may be able to obtain a range of video footage of vomiting that would otherwise be difficult or time-consuming to obtain.

Software Applications

Today's mobile handsets are powerful computing devices in their own right. Many advanced handsets run scaled-down versions of desktop operating systems such as Microsoft Windows or Apple OSX, making programming a comparatively easy endeavour. Mobile handsets have increasingly replaced separate personal digital assistants (PDAs) as they have incorporated PDA technology and operating systems. Previous interventions developed for PDAs can easily be run using current mobile telephones. With their high level of programmability, the potential for a wide array of software applications is almost limitless. Existing handsets, for example, are capable of displaying PDF documents for reading by clients, or running games designed to teach important therapy concepts to children.

Java is a programming language designed to allow software to be developed that can be easily converted to run on numerous different hardware platforms. Java is an integral part of most web-browsers, and is a standard component of most mobile handsets. Such cross-compatibility allows therapists/programmers to develop software that can be readily run on whatever handset their patient already owns. Java applications have, for example, been used previously to transfer medical data between patients and medical practitioners (Zhang et al., 2007).

Limitations and Cautions Regarding Mobile Telephones in Psychotherapy

Despite the advantages and capabilities of mobile telephone technologies, there are also limitations that researchers and clinicians must remain aware of. Mobile handsets, while increasingly affordable, may prove too expensive to purchase and connect for some patients. The cost of the technology, however, must be considered in light of the potential savings that may be gained in reduced therapist contact. Where a handset is used to augment traditional psychological interventions, there may be corresponding savings in cost of overall therapist contact.

Mobile handsets, like any other computer technology, require expertise to effectively program software applications. Where therapists can use off-the-shelf existing software or Internet applications, this is less of a concern. Where new software development is required, however, this may be an expensive and time-consuming undertaking. Designers of applications and Internet sites for use should also be mindful of ensuring that their applications are user-friendly enough to be used by individuals with all levels of technological experience.

The therapeutic alliance that is developed in psychotherapy is important in optimizing therapeutic outcome (e.g., Krupnik et al., 1996; Wampold, 2001). There is a danger that patients who have fewer hours of direct contact with a therapist may experience a weaker therapeutic alliance. There is, however, a large body of literature demonstrating that interventions administered, in part or in full, via a personal computer are effective (e.g., Kaltenthaler, Parry, & Beverly, 2004; Reger & Gahm, 2009). Further research is needed to establish whether incorporating mobile handsets into psychotherapy significantly alters effectiveness and efficacy.

For some conditions there is the potential for mobile telephones to work in a countertherapeutic manner. In anxiety disorders, a particular problem concerns the ability of a handset to operate countertherapeutically as a safety signal (Rachman, 1984). Treatments involving the use of mobile telephones should aim to have the patient relinquish therapeutic use of the device as treatment progresses. Previous research has demonstrated that patients can relapse after successful use of a device designed to augment treatment (Baer, Minichiello, & Jenicke, 1987, 1988; Flynn et al., 1992). Therapists should attempt to guard against such relapses by encouraging the patient to relinquish use of the device as part of treatment. For example, while patients may utilize a handset-based relaxation procedure during an agoraphobia exposure exercise, the exposure tasks should be revisited without the ability to use the mobile telephone. Another example of potential for countertherapeutic use of mobile handsets may be in individuals with significant paranoid ideation, who may be concerned about technology such as GPS monitoring.

Therapists and clients should also be cautious that the additional use of the mobile telephone does not contribute to a pattern of multitasking behaviors that may increase stress or anxiety. As with any psychotherapeutic intervention, the clinical decision on whether to use mobile telephone technology must be made on the basis of each individual client's presentation. Client and therapist should also have a clear understanding of what will happen to the handset at the end of treatment.

A further concern regarding mobile telephone technology is the extra commitment and burden this may place on therapists. While having the ability to contact a health professional has been demonstrated to increase perceived support in patients (Chin, Adams, Khoury, & Zurakowski, 2005), this should not be allowed at the expense of the therapist's own work-life balance. Where contact is permitted between sessions, clear boundaries and limits to this contact must be discussed and agreed upon. This is the case regardless of whether such contact occurs via voice, SMS, email, or social networking sites. There would also need to be clear agreement between patient and therapist regarding billing practices for such out-of-session contact and messages.

Using a portable device in an assessment role raises issues of data security, particularly if the device is used to store information for later analysis. Designers of software and Internet sites for use in psychotherapy augmentation should ensure that adequate data security measures, such as strong encryption of data, are in place to protect sensitive information. Therapists should also ensure that they are familiar with the mechanisms used to protect patient data, as well as the potential limitations of such measures. Before using a mobile handset for assessment or treatment, a client should also be made aware of these risks, and the methods used by the therapist to guard against unauthorised access to personal data.

Boschen and Casey (2008) also reported on other additional barriers to mobile telephone use. This earlier report discussed limitations of network coverage, and reluctance of some individuals (e.g., older adults and others less familiar with mobile telephone use) to use mobile telephone technology. The rapid increase in network coverage, as well as the zeal with which the technology has been embraced by consumers, make such barriers now seem almost insignificant.

Finally, clients, therapists, and researchers should recognize that the evidence for the effects of mobile telephone use on psychotherapy remains limited. All should be careful not to approach the use of these devices with a zeal that exceeds the available research evidence. There are limited data regarding which populations (e.g., certain age groups) may benefit from mobile telephones. There is a clear need for further research into the effects of mobile phones in psychotherapy, including their specific impact on therapeutic alliance, treatment cost, treatment accessibility, and effectiveness, as well as the groups for which mobile phone use is most effective.

Conclusion

Mobile telephone technology continues to present several advantages that may be useful in helping to address common problems in the delivery of treatments such as CBT. Although the technology is being rapidly embraced by the medical profession, its application in clinical psychology has remained limited. The capabilities of current handsets, including new technologies such as accelerometers and GPS, provide an ever-increasing range of potential applications in clinical psychology that may be considered by clinicians and researchers.

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Research Forum

Mobile Telephones and Psychotherapy: II A Review of Empirical Research

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Mobile telephones have become a common, widely used communication tool across the globe, embraced more rapidly than any previous technology (International Telecommunication Union, 2009). In addition to their basic application as a voice communication technology, mobile telephone handsets have many attributes and features that make them an ideal device with which to augment cognitive and behavioral interventions (Boschen, 2009; Boschen & Casey, 2008). This paper reports on a collection of research studies in which mobile telephones have been used to augment cognitive behavioral therapy (CBT) for psychological disorders. It updates the recent review paper by Boschen and Casey, more than doubling the number of studies examined. It also compliments the review of mobile phone attributes and suitability for CBT augmentation by Boschen (2009; this issue). A brief synopsis of the use of handsets in medical and health research and treatment is provided, along with a more detailed survey of the use of the technology in psychological assessment and intervention.

Previous Use of Mobile Telephones

A search of the PubMed database was conducted on May 7, 2009, using the search terms "(CELL or CELLULAR or MOBILE) and (PHONE or TELEPHONE) and (PSYCHOL* or PSYCHIAT* or PSYCHOTHER*)". This search returned 367 individual publications. Additional articles were found through examination of the references of those articles found in the initial search. Each abstract was examined for relevance. Only English language articles pertaining to mobile telephone use in psychological/psychiatric disorders were included, while articles focused on medical and chronic health problems such as diabetes and obesity were excluded. Studies that focused on the use of mobile telephones as data-capture devices in epidemiological research were excluded, as were articles using mobile telephones to manage neurological/neuropsychological problems. Articles that reported on the use of mobile handsets to promote changes in dietary or exercise behaviors were excluded. Several articles reporting on the use of mobile telephones to manage stress associated with pregnancy, surgery, work rehabilitation, or commuting were also excluded. Review articles and two articles reporting on proposed methodologies (without empirical data) for using mobile phones were removed from the database, to maintain a focus on studies reporting new empirical data. A single article reporting on proposed use of mobile telephone handsets to manage battlefield stress was excluded. Finally, articles reporting on using personal digital assistants (PDAs), or using mobile telephones to access Internet websites, were not included. A total of 16 articles were identified using this search strategy, the list of which is provided in Table 1.

Use of Mobile Telephones in Medicine and Health Behavior

Recently, mobile telephone technology has been rapidly embraced by the medical community. Research has investigated the application of mobile telephony in chronic disease management (Blake, 2008). Specifically, mobile telephone technology has been used for assessment, treatment, and information exchange in medical conditions such as hypertension (Logan et al., 2007), asthma (Hung et al., 2007; Pinnock, Slack, Pagliari, Price, & Sheikh, 2007), chronic obstructive pulmonary disease (Liu et al., 2008), and diabetes (Franklin, Greene, Waller, Greene, & Pagliari, 2008; Kim & Kim, 2008), as well as in sexual health settings (Lim, Hocking, Hellard, & Aitken, 2008). Mobile telephones have been used to assist in medication compliance (Skinner, Rivette, & Bloomberg, 2007) and management of medication side effects (Weaver et al., 2007). Additionally, Zanner and colleagues (Zanner, Wilhelm, Feussner, & Schneider, 2007) have reported on use of a mobile telephone–based first-aid package. Mobile telephones have been used across several studies of health behaviors. Mobiles have been used to assist in assessment and treatment of obesity (Joo & Kim, 2007; Morak et al., 2008), exercise and physical activity programs (Hurling et al., 2007; Liu et al., 2008), and dietary assessment and management (Kikunaga et al., 2007). Although many of these studies were not strictly randomized controlled trials, together they constitute a body of converging evidence that mobile telephone technology may be useful in managing health conditions.

Use of Mobile Telephones in Psychological / Psychiatric Disorder Assessment

Despite their use in medicine and health behaviors, mobile telephone handsets have not been as extensively incorporated into psychotherapy assessment and research. Mobile telephones have been utilized as assessment tools in a small number of research studies. Many of these were used to assess use of addictive substances or addictive behaviors. Taylor and Katomeri (2007) used participants' own mobile telephone to assess the duration between when participants completed an experimental manipulation (involving exercise or a period of rest) and their next subsequent cigarette. Participants were asked to send a single text message to the researchers when they smoked their first cigarette after leaving the experiment. Although the authors did not report on the effectiveness of this assessment method, the expected correlation between subjective craving and time until smoking was detected, suggesting that the text message assessment was suitable in this assessment role.

A rudimentary comparison of pen-and-paper monitoring against mobile telephone monitoring was conducted by Collins, Kashdan, and Gollnisch (2003). This study compared monitoring methods in their assessment of alcohol intake in 20 social drinkers. Those participants in the mobile telephone monitoring group contacted a central Interactive Voice Response (IVR) system using a mobile telephone each day to report their alcohol intake. Although there were no significant differences in monitoring compliance, the authors report several other advantages to cellular handset use, such as immediate entry of data into a central dataset, and time-stamping of the data for verification of the time at which it was recorded. A similar method using mobile telephones to contact an IVR system was used to gather information from problem gamblers, including the type of gambling, gambling outcomes, and subjective mood and arousal ratings (Gee, Coventry, & Birkenhead, 2005). The research group reported that monitoring using mobile handsets was successful, and that the method also showed promise for future interventions with this problem.

In a more challenging test of the utility of mobile telephone assessment, Freedman, Lester, McNamara, Milby, and Schumacher (2006) evaluated the ability of handsets to assess cocaine use and cravings in a cohort of 30 homeless cocaine-dependent individuals who had recently completed a treatment program. Data entry was initiated by a call to the mobile telephone handset once during every 3-hour period, at which time participants would enter monitoring data using the handset keypad. In this research, the authors reported good compliance, with 80% of participants completing the assessment period. Furthermore, the authors reported that the assessment of cues associated with craving increased participant awareness of the relationship between cues and cocaine use.

Assessment of mood and affective variables has also been conducted using mobile telephones in a small collection of studies. Mobile telephones have been used to assess mood, affect, and activity ratings in adolescents with and without mood disorders. In two studies, calls to mobile telephones have been used to prompt participants to provide data for use in comparing mood and activity (Axelson et al., 2003), or to examine the relationship between altered striatal functioning and positive affect in real-world settings (Forbes et al., 2009).

Although the studies that utilized mobile telephone technology suggest some promise for their use in research and clinical settings, several limitations are noteworthy. Firstly, all of the assessment studies reviewed here made use of only the most basic mobile telephone technology. All assessments used either voice calls or text messaging to capture data, making no use of more advanced mobile technologies such as GPS, multimedia recording, or accelerometers (Boschen, 2009). Secondly, there has been no detailed comparison between data gathered using mobile telephones and more traditional (e.g., pen-and-paper) methods. While Collins et al. (2003) made some comparison between these two methods, their analysis was limited to ensuring that the results between the two methods were similar in two small samples. More useful in future work would be a more thorough investigation of the use of the two assessment methods to detect theory-consistent differences, for example between a group of problem and nonproblem drinkers, or between successfully treated and untreated drinkers.

Use of Mobile Telephones in Psychological / Psychiatric Interventions

Similarly to their role in assessment, mobile telephone technologies have enjoyed limited application in clinical psychology and psychiatry interventions. The largest body of intervention research has used mobile telephones in smoking cessation programs. A range of interventions for smoking cessation have been investigated, from simpler methods involving text messages, up to more complex interventions using video and other multimedia played by mobile handsets. In the earliest example of text messaging to assist in quitting smoking (Obermayer, Riley, Asif, & Jean-Mary, 2004), a series of text messages were tailored to 46 regular smokers, based on information about each individual's own high-risk situations and times, as well as their target quitting date. Participants were sent text messages as their quit date approached, and then were sent three text messages at high-risk times on their quit date. Each day after the quit date, two further text messages were sent, aimed at relapse prevention. Throughout the intervention, participants were also able to contact the automated system to obtain assistance and suggestions in high-risk situa-

tions. In this uncontrolled 6-week study, 22% of participants had achieved a 1-week period of continued abstinence. The ability of SMS messages to assist in smoking cessation was confirmed in a larger cohort of 1,705 smokers who participated in a randomized controlled trial (RCT) comparing a tailored text message intervention with a control group given only text messages thanking them for their participation. In this study by Rodgers et al. (2005), 28% of the treatment group had quit smoking, as compared to 13% of the control group. The use of text messaging as an aid to smoking cessation has also been found to be equally effective when compared across different cultural groups (Bramley et al., 2005).

Recently, more sophisticated smoking cessation programs have attempted to integrate not only text messaging, but also multimedia playback. The Happy Ending automated smoking cessation program (Brendryen, Drozd, & Kraft, 2008; Brendryen & Kraft, 2008) incorporates text messaging, audio messages, and automated phone calls to check successful abstinence, along with email and Internet materials. To date, two RCTs have been conducted using Happy Ending, both of which have supported the efficacy of the Happy Ending program in improving abstinence and relapse prevention. Building on the earlier work of the Auckland group (Rodgers et al., 2005), Whittaker et al. (2008) conducted an innovative pilot smoking cessation study adding the use of video playback of material designed to assist smokers in maintaining abstinence. In addition to text messages, video materials were available on demand that depicted role models using strategies to manage cravings. Although only a small pilot trial, the authors reported that 9 of the 15 participants who completed the program were abstinent after 1 month—sufficient encouragement for the research team to embark on a larger scale RCT.

Another study (Riva, Grassi, Villani, Gagglioli, & Preziosa, 2007) examined the use of mobile handsets to assist in management of exam stress in 30 female university students who were preparing for an exam in 1 week. Some participants were provided with either audio (CD) or audio-video (DVD) at home, while others were provided with portable audio (MP3 player), or an audio-video narrative played from a mobile handset. The authors report the superiority of the mobile telephone intervention, which was more effective in assisting participants to relax before an exam than the other methods, or a nonintervention control.

In the earliest article detailing the use of mobile telephones in CBT, two individual patients utilized mobile telephone voice communication to assist in treatment of driving phobias (Flynn, Taylor, & Pollard, 1992). The two individuals were allowed to use mobile telephones while driving a predetermined route as part of an in vivo exposure program. Each person was permitted to contact the therapist, or anyone else, during the driving trip. After 4 weeks of treatment in which telephone use was unrestricted, the use of the mobile telephone was gradually faded over a period 4 weeks. While both patients were able to increase their driving range while the telephones were available, one reported significant relapse of symptoms upon removal of the telephone, and appeared to have become dependent on its presence at a 3-year follow-up.

Anxiety associated with school refusal was treated by Aviv (2006) using mobile telephone handsets. In this study, the author used "tele-hypnosis" with 12 adolescents, allowing contact with the therapist for hypnotic interventions via mobile telephone. Of the 12 students treated, 8 were able to return to full-time schooling, while a further 3 showed improved attendance.

In addition to active treatment augmentation, mobile telephones also have a potential role in relapse prevention strategies. The high rates of relapse in schizophrenia were targeted by Španiel and colleagues in 2008, using mobile telephones to assist in relapse prevention in a cohort of 45 individuals with psychotic illnesses. The focus of the relapse prevention strategy was early identification of warning signs of relapse, including changes in sleep, appetite, and ability to concentrate. Participants sent weekly SMS messages to a central server that would then evaluate whether the individual was at increasing risk of relapse. When risk levels reached a critical threshold, an email was automatically sent to the treating psychiatrist, who would contact the patient to arrange a review. Compared to before the relapse prevention program was started, there was a drop of 60% in hospital admission rates during the mobile telephone-based relapse prevention program. It is notable that dropout rates were also very low at only 10% during the trial.

Conclusions and Limitations of the Literature

Despite the growing number of favorable research studies, the reader should be aware of a range of limitations in both the available research literature and the mobile devices themselves. The major limitation of the current research into mobile use in psychotherapy is the number and quality of previous studies. This review located only 10 studies published using mobile telephones in a treatment role, with less than half of these being randomized controlled trials. Others included single case studies, and uncontrolled treatment trials with small samples. Furthermore, mobile telephones have been employed in a very limited range of psychological conditions, with 6 of these 10 studies focusing on smoking cessation, 3 on anxiety/school refusal, and one on relapse prevention in psychotic illness. With such a limited range of literature, it is difficult to confidently assert the therapeutic utility of mobile handsets in a wider therapeutic role.

The condition for which there is most empirical evidence for the effectiveness of mobile telephone use is smoking cessation. The studies reviewed here provide several reports of randomized controlled trials, as well as investigations of whether equivalent treatment effects are observed in different cultural groups (Maori). The studies on smoking cessation also utilize the largest samples of any treatment studies using mobile telephones. Although further research is required, even in this area, it is in smoking cessation that the greatest evidence for the potential of mobile handset use is available.

To date, it is also impossible to draw firm conclusions about the specific effectiveness of the mobile handset itself, within therapy. No studies have examined whether adjunctive mobile telephone use improves outcome in psychotherapy. Nor have there been any studies in which the cost-effectiveness of mobile telephone use is specifically examined, comparative to face-to-face therapy. There is also very little data available on differences among different demographic groups in effectiveness of mobile telephone use. Only the study of smoking cessation by Bramley et al. (2005) made direct comparisons between different demographic groups (Maori and non-Maori New Zealanders). No studies have compared effectiveness based on age, gender, socio-economic status, education levels, or other demographic variables. This lack of evidence may currently mask problems with generalization of the available studies to different groups. Where studies are conducted with university students, for example, a similar program may prove less effective in nonuniversity students. This cannot be judged on the basis of the currently available data.

Table 1. Previous Psychological Research Using Mobile Telephones

Study	*Sample*	*Method*	*Results*
ASSESSMENT STUDIES			
Axelson et al. (2003)	$N = 21$ adolescents (16 with affective disorder, 5 controls)	Calls to mobile phones used to gather ecological momentary assessment of mood, activity, environment and events.	Low dropout rate. Comprehensive data cited as evidence of strength of mobile phone use in ecological momentary assessment.
Collins et al. (2003)	$N = 20$ social drinkers	Compared pen-and-paper assessment of alcohol intake with data gathered from mobile telephones, over 14 day period.	Mobile telephone associated with advantages such as immediate entry of data into a central database, time-stamping of data.
Forbes et al. (2009)	$N = 33$ adolescents (15 with depression, 28 controls)	Calls to mobile handsets used to prompt adolescents to enter data regarding level of positive affect.	No specific information provided on validity of use of phones in assessment, although the hypothesized results were observed.
Freedman et al. (2006)	$N = 30$ homeless cocaine users	Automated calls to mobile handsets used to gather drug use and craving data over 2-week period.	Acceptable assessment method, with 80% of individuals completing. Also reported to increase awareness of relationship between cues and drug use.
Gee et al. (2005)	$N = 17$ problem gamblers	Mobile handsets used for data collection on problem gambling and related variables.	Gambling associated with increased physical arousal. Assessment method described as effective.
Taylor & Katomeri (2007)	$N = 60$ smokers	Text message use to inform experimenters of duration until first cigarette after leaving experiment.	No specific information reported on validity of assessment, but hypothesized correlations between craving and latency to first cigarette observed.
TREATMENT STUDIES			
Aviv (2006)	$N = 12$ adolescents with school refusal	Adolescents treated with hypnosis for school refusal, and permitted to contact therapist to assist via mobile telephone when attending school.	Eight participants were able to return to full-time schooling, with three others showing significant improvement in attendance.
Bramley et al. (2005)	$N = 355$ Maori and $N = 1{,}350$ non-Maori smokers	Compared text messaging for smoking cessation in Maori versus non-Maori participants.	Text messaging intervention equally effective in both groups.
Brendryden et al. (2008)	$N = 290$ smokers	RCT comparing multimedia program for smoking cessation incorporating text messages and audio recordings, with information booklet control condition.	Increased abstinence rates for the treatment condition up to 12 months after cessation.

{Table 1, continued}

Study	*Sample*	*Method*	*Results*
TREATMENT STUDIES			
Brendryden & Kraft (2008)	$N = 396$ smokers	RCT comparing multimedia program for smoking cessation incorporating text messages and audio recordings, with information booklet control condition.	Increased abstinence rates for the treatment condition as well as improved adherence to nicotine replacement therapy.
Flynn et al. (1992)	2 x $N = 1$ case studies	Mobile handsets used as contact for people with driving phobia during solo (exposure) trips.	Improvement reported in both cases, with one relapsing. Cautions by authors that mobile phones may operate as safety signals.
Obermayer et al. (2004)	$N = 46$ university student regular smokers	Tailored text messages used in preparation and relapse prevention in smoking cessation program.	Almost half of participants had attempted to quit at least once during the 6-week trial. A total of 22% had achieved 1 week of continued abstinence.
Riva et al. (2007)	$N = 30$ female university students	Compared audio-visual narratives delivered via mobile phone with MP3 players and home DVD players, as a means of managing exam anxiety.	Delivery via mobile telephone superior to MP3 player or home DVD player, allowing audio and video stimuli to be used.
Rodgers et al. (2005)	$N = 1,705$ smokers	RCT comparing SMS for smoking cessation against a control group receiving messages thanking them for participating.	SMS intervention found to be superior, with 28% quitting smoking, compared with only 13% of the control group.
Španiel et al. (2008)	$N = 45$ patients with psychotic illness	Remote assessment of Sz patients using SMS to detect early warning signs of relapse and initiate early intervention.	Drop of 60% in relapse rates during the program, compared with prior to the program.
Whittaker et al. (2008)	$N = 15$ smokers	Multimedia mobile phones used to play video to assist smoking cessation. Videos of role models using craving coping strategies available on demand.	Successful development and pilot of multimedia smoking cessation program. After 4 weeks, 9 of 15 participants reported abstinence.

From the studies reviewed here, it is apparent that psychological treatments using mobile telephone technology have also been restrictive in their use of available technology. Research to date has utilized only voice and SMS communication, and limited multimedia playback. These capabilities represent only a small fraction of the technologies available on modern mobile telephone handsets (Boschen, 2009). While the current use of the range of features on handsets has been limited, the future may lead to innovative and inventive uses of the full capabilities of mobile telephones. Even so, there is no available empirical data on the utility of the wider range of telephone capabilities in psychotherapy.

In some cases, it is also possible that the use of a mobile telephone handset may have a negative impact on treatment. As demonstrated by Flynn et al. (1992), there exists the possibility, particularly in anxiety conditions, that mobile telephone handsets may act countertherapeutically. The relapsing participant in these case studies demonstrates a similar problem to that observed in technology-assisted treatments of other conditions such as OCD (Baer, Minichiello, Jenicke, & Holland, 1988). Clinicians must remain alert to the potential for device-dependence, as well as the risk of relapse when mobile telephone handsets are withdrawn.

There are a range of other technological limitations to mobile handset use in psychotherapy interventions. A range of these, including cost of handsets and programming difficulty, are discussed in Boschen (2009) and Boschen and Casey (2008). Despite these limitations in research, use of the available technology, and practicalities of use, the small number of treatment studies suggests that mobile telephony may hold promise in augmenting cognitive and behavioral psychotherapy. Further research is needed, however, to more confidently ascertain the potentials and pitfalls of incorporating handsets into psychological interventions.

Conclusion

Mobile telephone technology has been increasingly used in medical and health interventions, but has not been similarly embraced by cognitive behavioral therapists and researchers. Even where mobile telephones have been used in assessment and treatment, studies have typically utilized only the basic features provided, rather than the more advanced features available in modern handsets. Despite this slow uptake of cellular telephone technology, these early studies provide hope that mobile telephones and allied technologies may provide useful tools in assessment and intervention.

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Confidence Techniques for Clinical Practice: Anti-Anxiety Procedures Developed in an Acting Class

Michael Schulman, *Leake and Watts Services, Inc.*

I am a psychologist and was an acting teacher for many years. Some years ago, when I was teaching acting at Lee Strasberg's school, I developed techniques for helping actors overcome stage fright. These techniques turned out to be useful in clinical practice for various anxieties, particularly social and public speaking anxieties. Strasberg, who was a founder of "method" acting technique and artistic director of The Actors Studio for many decades, emphasized physical relaxation for overcoming stage fright and developed elaborate procedures for helping actors achieve deep muscle relaxation. But relaxation is under the control of the central nervous system, while stage fright and other anxieties are primarily autonomic responses. While relaxation of the skeletal muscles can lead to autonomic changes (Wolpe, 1958), this is a two-step process. Therefore it seemed worth exploring techniques for overcoming stage fright that would directly, and more quickly, engage the autonomic nervous system.

My work with Strasberg took place in the late 1960s into the mid-1970s, a period that coincided with the development of various forms of cognitive-behavior therapy, all of which shared the notion that people could learn to use anxiety-arousing stimuli or the early bodily and cognitive experiences of anxiety as cues for thinking of something that would prevent the anxiety response from developing (Mahoney, 1974; Meichenbaum, 1977). The Strasberg approach, which he had been using for many years by the time I worked with him, was similar to cognitive-behavior therapy in that he taught his acting students to use their anxiety as a prompt for coping self-statements—that is, to remind themselves to relax if they experienced fear when playing a scene. Strasberg's goal was that with practice the relaxation would be rapid enough to not interfere with the actor's main tasks (which are using his or her craft to live the life of the character) and would not be evident to an audience member. From my observation, this was not an easy transition for many of Strasberg's students to make.

My explorations began when I noticed that in my classes (and Strasberg's, as well) there was no correlation between students who were the good relaxers and those who were the good actors. The good actors, as they performed, were mentally calm and physically at ease, but usually not muscularly relaxed. The student with stage fright—and most actors, even great ones (Olivier, 1982), experience stage fright at least some of the time—needed something that would give him or her that same feeling of calm and a sense of control.

I developed two exercises, the *confidence stimulus exercise* and the *confident character exercise*, to help actors overcome their fears, both of which are applicable in a clinical setting. These exercises involved cognitive-behavioral techniques in that students were taught to use anxiety as a cue for coping self-statements. But in the "confidence" exercises what they told themselves was to create autonomically arousing imagery selected to counter the effects of the anxiety stimuli (Schulman, 1984). The confidence exercises differed from other cognitive-behavioral approaches, such as Meichenbaum's "stress-inoculation training" (Meichenbaum, 1977; Meichenbaum & Turk, 1976), in that students were taught to switch their thoughts to evocative imagery rather than verbal self-instructions, such as the correction of irrational thoughts or self-directed pep talks such as telling oneself that one is brave (Graziano, & Mooney, 1980). Also, unlike approaches that trained people to conjure pleasant images when afraid (Hekmat & Vanian, 1971), the confidence exercises gave students systematic practice in bringing to mind images that made them feel powerful.

The confidence exercises also differ from other current cognitive behavioral approaches, such as acceptance and commitment therapy (ACT; Luoma, Hayes, & Walser, 2007; Roemer & Orsillo, 2007) and imaginal exposure therapy (Foa et al., 1999; Rentz, Powers, Smits, Cougle, & Telch, 2003). ACT starts from the premise that active attempts to reduce anxiety (called experiential avoidance) are ineffective and even increase anxiety. Anxious patients are taught to accept, be "mindful" of, and objectify their anxiety as just thoughts that, despite the discomfort they cause, need not determine their behavior. The confidence techniques described below emerge from the opposite premise—that anxiety can be confronted directly, supplanted, and, thus, overcome.

In imaginal exposure therapy (Foa et al., 1999), which has shown effectiveness particularly with PTSD, the patient is prompted to reimagine over and over a traumatic incident (e.g., a rape, a combat experience) that continues to generate debilitating anxiety. This imaginal reimmersion, though painful at first, eventually diminishes the impact of the trauma. The confidence exercises have not been used with PTSD, but since these kinds of trauma can affect one's identity (that is, one's conception and categorization of oneself as a weak, inadequate person), the confidence techniques, which are designed to bring one's courageous identity to the fore, may have some useful application here.

The Confidence Exercises

Actors frequently use imagery, or what I call "personal stimuli," to achieve various emotions, with their accompanying autonomic responses; this is a key tool in what has become known as "method" acting, a process first taught systematically by the great Russian actor and director, Konstantin Stanislavski (Stern & Lewis, 1968). For example, to become sad they think of some personal loss; to become angry they think of an enemy or offense they suffered. It is an effective process (Schulman, 1973). So it made sense that the same process could be applied to generating states of confidence and a sense of personal power—in other words, that one could use personal "confidence" stimuli to generate the calm, self-contained state that actors need to perform well. Whereas actors and their teachers have little interest in using physiological measures to document the autonomic changes that their imagery produces, these imagery-based changes can in fact be measured (Gottschalk, 1974; Waters & McDonald, 1973).

Students were asked to conjure stimuli from their lives that induce feelings of confidence and personal power. Their stimuli varied greatly: for one it was the image of her grandmother in her kitchen; for another

it was the feeling of his fingers in a bowling ball; a third student imagined herself sitting by the ocean, hearing the rush of the waves and smelling the salty air; a fourth conjured a "light" that signified the presence of God; another pictured returning home to a joyful pet dog. Some students imagined a person who roused their righteous indignation or rage, while others used certain pieces of music, or the feeling of ballet slippers on their feet, or wearing a particular outfit, or visualizing an adoring parent or an adoring lover. Even those who said they rarely experienced moments of confidence could resurrect some person, animal, place, or thing that could at least move them in that direction.

Then came the training in how to use one's confidence stimulus. It's easy to think of and be affected by a confidence stimulus when one isn't afraid—but when faced with a fear stimulus (for an actor this might be an important audition or an opening night or playing characters or emotions beyond one's comfort zone), the confidence stimulus is more than likely to get overwhelmed by fears of forgetting one's lines or making a fool of oneself and vanish from consciousness. So the training had to include: (a) basic concentration procedures, followed by (b) an exploration of the confidence stimulus to discover its most evocative elements, followed by (c) practice in summoning the confidence stimulus when frightened. The ultimate goal was for anxiety to become a well-practiced cue for bringing the confidence stimulus to mind.

The Skill of Concentrating

We say our concentration is good when we are able to keep in consciousness something we have chosen to focus on. We say our concentration is bad when we find ourselves thinking about something else. So the first step was to have students practice the skill of concentrating by asking them to focus on one object—for example, their thumbs. Sitting in a chair, their task was to keep their thumbs in the center of their thoughts without looking at them, moving them, or touching anything with them. Among the thoughts that helped them stay focused were relaxing their thumbs, imagining or remembering their thumbs on some object, imagining their thumbs changing size, and searching for a pulsing sensation in their thumbs. So their first tool for sustaining concentration was to continually explore the object of their concentration, focusing particularly on sensations they found naturally engaging.

But, of course, their thoughts would at times wander. Their job, then, was to use the second tool for keeping their concentration on target: to simply tell themselves, without any self criticism, "Go back to my stimulus" or "Ask a question about my stimulus" (such as, "What do my thumbs feel like in ice water?"). With practice, students learned which questions about, and which sensory elements of, their stimulus would reengage them quickly.

The Confidence Stimulus Exercise: Imagery-Based Desensitization

In the next step, the students were to use the same concentration procedures to stay focused on their confidence stimulus. They were to explore its sensory elements, ask questions about it, resurrect memories about it, recall their body sensations when in its presence—and tell themselves to go back to it when they found their mind had wandered to something else.

We quickly discovered that the same stimulus that evokes confidence may, from another perspective, evoke other, at times contrary, feelings. For example, imagining stepping into ballet slippers may initially arouse exuberant feelings, but one's thoughts may soon drift into ruminations about unfulfilled dreams of becoming a dancer and the hard work that never paid off. Students were told to expect such natural driftings and, when they became aware of them, to use their by now well-practiced concentration steps: to tell themselves to go back to and explore the elements of their stimulus that made them feel strong and confident.

Then various obstacles were introduced, such as requiring them to express their confidence via sounds and body movements as they moved about the room, making eye contact with each other, adding these obstacles one at a time. The goal here was to give the actors practice in maintaining their confidence when they were expressing, and feeling exposed, and performing way outside of their comfort zone. At times students were asked to express their feelings through the sentence, "I can do anything," saying it to each other as they walked around the room.

In the last, crucial, step students practiced switching from an anxiety-provoking stimulus to their confidence stimulus, starting by imagining themselves in an anxiety-arousing situation, such as an audition or in the presence of a scary boss. After giving them a few minutes to explore this negative situation (allowing their anxious or depressed feelings to manifest themselves in movements and sounds), they were asked to switch to their confidence stimulus (again expressing their feelings in movements and sounds). When feeling anxious during a performance, actors who use this technique must be able to switch to their confidence stimulus swiftly and subtly, and quickly return to the life of the character, without anything noticeable to an observer. With practice, this could be accomplished.

But for some students their negative situation would set off a sequence of self-denigrating thoughts that could be quite tenacious. When this happened, students were often helped by the reminder that they could spend time later, after class, on the exploration of these personal issues, while their job now was to learn to extricate themselves from them for the sake of their artistic and professional goals.

As students became proficient in the confidence stimulus technique, they often found that they needed it less often. Actors, public speakers, and others who anticipate anxiety in public or social situations dread the possibility of freezing and humiliating themselves. This dread frequently produces a self-fulfilling prophesy, bringing on the anxiety they fear. By having an antianxiety technique that they knew they could rely on, students were less likely to approach performing situations with dread and less likely to freeze.

The Confident Character Exercise

Like the confidence stimulus exercise, this exercise adapted a basic tool of the actor's craft to help actors achieve confidence: their character work. Well-trained actors learn how to create different characters in order to suit their character to their interpretation of the role. Most actresses would not want their Desdemona to look and sound like their Lady Macbeth. When leading character actors describe their technique they invariably talk about the importance of observing people and incorporating elements of those they've observed into their characters. This way they can "live" lives very different from their own. So, it made sense to see if they could use this technique to live more confidently on stage. It turned out that they could.

In teaching students how to play characters, I asked them to feel as if the person they were using as their character model had moved inside their body, taking over their muscles, their eyes, their other senses, their posture and gait, the rhythm they feel in their body as they speak and move, the

place their voice resonates from, their manner of engaging others, among other attributes. In the confident character exercise, students were asked to use as their character model a person they considered confident, and it didn't matter if the physical manifestation of that person's confidence was subtle or flamboyant.

As in the regular character exercise, they were to feel their character model move inside them and take over their being. The instructional phrase I used was, "Get possessed by your character." The process, while similar to "covert modeling" (Kazdin, 1979), involves not merely observing a courageous model, but using acting technique to "become" that model. But our goal here was not an overt physical transformation—only a change in temperament and attitude. So students were told to explore only those elements of their model that helped them incorporate the essence of the person's confidence, such as the way he or she sees others and engages them, and his or her posture and vocal resonance.

They practiced "living" this character in various formats—in improvisations and scenes, speaking monologues and poems, and singing songs. As in the confidence stimulus exercise, when they lost their character they were to simply tell themselves to go back to an element of the character that would help them refocus (such as the posture or vocal resonance). Through their confident character, students often found a sense of self-assuredness that they had not known before. They felt they had a tool they could rely on if anxiety started rising up in them.

But for some students, projecting confidence rubbed against the grain of their personal identity. If one has always been self-effacing and unassertive, projecting confidence can feel very risky, arousing the fear that others will take your self-possession as a challenge and get mad and reject you.

When students appeared to be going through this struggle, they were reminded that our goal was not to change anything about their real lives, but only to give them the tools to fulfill their artistic and professional goals. The actor, in his or her work, must feel powerful, must truly believe that others will gain pleasure by watching him or her perform. One may be self-effacing in one's life, but not in one's work. But, since acting class is not therapy, there are limitations on how fully one can explore with students the psychological underpinnings of their anxieties or the roles they have adopted in their personal relationships.

Applications to Therapy

I've applied both the confidence stimulus exercise and the confident character exercise, with modifications, in individual psychotherapy with anxious patients. In general, given the setting of a psychotherapy office, the process is quieter, without all the moving about and loud vocal expressions. But the basic technique, rehearsing switching from an anxiety stimulus to a confidence stimulus or getting possessed by a confident character, remains the same.

Also, because patients provide the therapist with details of what they are afraid of and what gives them confidence and who they are using as a confident model, their imagery can be guided with more precision than is possible with acting students. For example, a patient might be anxious in the presence of the opposite sex, particularly if it is someone he or she finds very attractive. By knowing this one can structure the imagery about the person he or she is thinking of (e.g., "She's not looking at you"; "She's looking at you and smiling"; "You want to ask her to join you for coffee—go back to your confidence stimulus, then imagine asking her"). One can also structure homework assignments that hopefully will provide a progression of successes (e.g., "Tomorrow at work, think of your confidence stimulus as you approach him, make eye contact, smile, and say 'hi'"). For socially anxious patients who also do not have the necessary social skills to meet their social goals, employing the confidence stimulus allows them to practice these skills (such as learning to chat) in stepwise fashion. Little by little, the negative images they have of themselves performing poorly in social encounters (Hirsch, Clark, & Mathews, 2006) should be replaced by images of themselves knowing what to say and do.

I've applied the confidence stimulus exercise to, among other problems, an intense fear of heights. The patient was a bright, 18-year-old woman whose life was becoming increasingly limited because of her anxiety riding on an elevated subway line, driving in a car over a bridge, taking the escalator up to the second floor in the mall, and standing near windows above the second floor in buildings. Her confidence stimulus was dancing to popular music. She said she felt free and powerful when dancing, so her first task was to select a song she loved to dance to and imagine herself doing some of her favorite dance moves. We scaled some of her fear stimuli in terms of intensity (e.g., riding in an inner lane on a bridge was easier than an outer lane, the first landing of the staircase to the elevated subway was easier than standing on the platform). Then, while she was sitting in a chair, she was asked to imagine herself in one of her anxiety-arousing situations (starting with less intense stimuli) and to lift her hand as she felt the anxiety build (which occurred within seconds). She was then prompted to switch her thoughts to hearing her selected song and to imagine herself dancing to it (and it was okay if she hummed and moved her body during our early sessions). She practiced this switching through a variety of ascending stimuli—ascending in terms of heights and intensity of anxiety.

After four weekly sessions we began the in vivo phase of the therapy in which she was asked to recruit a "coach" who would accompany her to real-world fear situations and remind her to switch to her confidence stimulus if she began to back off from proceeding through the level she had selected as a goal. The coach (her father) came to the fifth therapy session to learn the confidence procedure. During the next three sessions we continued our practice in the office, focusing on situations that had been especially difficult for her in vivo. After 8 weeks, therapy was discontinued because she reported that she no longer experienced much anxiety in high places and was able to use her confidence stimulus when anxiety did arise.

In deciding whether and when to use these confidence tools with a patient, one must continually seek an understanding of the pervasiveness, roots, and functions of anxiety in the patient's life. Some people get anxious in only one setting, for example, when engaging in public speaking or with someone they are attracted to. Some have a more generalized social anxiety, expecting disinterest from, or rejection by, everyone they encounter. Also, some social anxieties have deep personal roots, perhaps emerging out of an early sibling relationship in which self-effacement was a requirement for maintaining a brother's or sister's love. And sometimes people adopt timidity or unassertiveness as a role they play in their social lives because it has gained them a degree of acceptance that they never felt they could get (or deserved to get) otherwise.

Sometimes I've uncovered these deeper roots or hidden functions only after encountering surprising resistance after a patient has acquired some proficiency with a confidence procedure. Suddenly the patient refuses to use it, even though it has begun to work for him or her. At that point it is likely that what seemed like a circumscribed problem ("I'm a successful lawyer, I do ex-

treme sports—it's just that I've never gotten comfortable with women") has deep roots. Then it is clear that therapy won't succeed without helping the patient understand the deeper sources of his anxieties and how they have affected his life.

While the confidence procedures described here fit into the general framework of cognitive-behavior therapy, they differ from other cognitive-behavioral approaches in that they use imagery to elicit confident, powerful, "I can do anything" type feelings in clients, rather than relaxed muscles, pleasant moods, or cognitive reinterpretations of fear stimuli. Joseph Wolpe does mention some successful case studies that used techniques similar to the confidence procedures I've described (Wolpe, 1990). In these cases, anger was induced to counter anxieties. In one report cited by Wolpe, a patient who was afraid of being accosted in the street overcame his fear by imagining fighting back aggressively against a would-be attacker (Goldstein, Serber, & Piaget, 1970). In one of Wolpe's own cases, an agoraphobic patient got furious at him for subjecting her to a series of distressing and unsuccessful therapeutic maneuvers. Her fear finally diminished when he told her to vent her anger at him as she ventured increasingly further away from the safety of the clinic (Wolpe, 1990). In these cases, anger-arousing images were effective and operating essentially as confidence stimuli.

Future research could compare the confidence techniques to other cognitive-behavioral approaches to see if certain anxieties are ameliorated more readily by one approach or the other. It might also explore whether different client types (e.g., introvert vs. extrovert) respond differently to the different approaches. No gender differences have been found in the success of the confidence procedures, and they've been used successfully with children as young as 11 years of age.

The confidence techniques have not been tried with panic disorder, obsessive-compulsive disorder, or PTSD. In stage fright, other social anxieties, and fear of heights, the fear is intrinsically connected to, and prevents, a desired positive action (e.g., performing well, engaging smoothly in social intercourse, going somewhere). Not all anxieties have this kind of link between the fear and an action. For example, the anxieties in panic disorders, PTSD, and obsessive-compulsive disorder interfere with virtually all actions and are not generally tied to trying to accomplish any particular positive goal. Thus, in applying the confidence techniques to these kinds of anxieties, the therapist would need to help clients prepare imagery for a number of activities that these anxieties prevent. For example, an obsessive checker might drive to work in the morning and frequently have to turn back to make sure, yet again, that he turned off his stove.

In therapy, the client's imagery would start with images of driving to work, followed by the troubling thoughts about the stove that make him want to turn back, followed by switching to the confidence stimulus or confident character (imagining himself thinking of these confidence images while driving). Since obsessive thoughts generally occur in many situations, it is likely that the therapist will have to have the client practice switching in a variety of circumstances (while driving, while walking to a restaurant, while exercising in the gym) before switching becomes habitual.

While the confidence procedures were developed a number of years ago, this is the first time they have been described in a psychology journal. My hope is that therapists will find them useful with clients and that researchers will explore their application to different kinds of anxieties and compare their effectiveness with other antianxiety techniques.

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Book Review

Cassidy, J., & Shaver, P. R. (Eds.). (2008). *Handbook of Attachment: Theory, Research and Clinical Applications* (2nd ed.). New York: Guilford.

Reviewed by Susan S. Woodhouse, *Pennsylvania State University*

This second edition of the *Handbook of Attachment* (Cassidy & Shaver, 2008) is an essential reference for researchers who focus on attachment, but it also has tremendous relevance for clinicians who are interested in the biological, cognitive, and emotional underpinnings of interpersonal relationships, psychopathology, the process of therapy with different clients, and therapeutic change. John Bowlby was himself a clinician and argued that attachment theory had important implications for therapy (Bowlby, 1988). As Arietta Slade describes in her handbook chapter on attachment and psychotherapy (Slade, 2008), attachment theory is not necessarily associated with any particular kind of therapeutic intervention. Instead, attachment theory can shed important light on how clinicians understand and respond to clients. Attachment theory can be very useful in helping clinicians make sense of client behaviors, client cognitive representations of themselves and others, client emotions, as well as of the clinician's own role as a secure base for the client. The *Handbook of Attachment* provides a scholarly, yet accessible, window onto research in these areas. The chapter authors are all experts, and many are leading researchers in the areas they review.

Although at times attachment theory has been associated with psychodynamic approaches to intervention (and there is a chapter on attachment theory and psychoanalytic constructs in the *Handbook*), it is clear that the approximately three decades of research reviewed in the *Handbook of Attachment* have implications for clinical work in ways that cross theoretical lines. For example, attachment researchers' focus on attachment-based cognitive representations of self and other, attribution and attention biases, and social expectations suggest that knowledge about attachment theory could be meaningful for cognitive and behavioral approaches to treatment. In addition, biological and neuroscience approaches to better understanding attachment-related phenomena provide important data for clinicians to consider in thinking about their clients' symptoms, interpersonal patterns, and underlying cognitive representations of themselves and others.

The *Handbook of Attachment* cuts across disciplines to discuss a wide range of issues relevant to clinicians, and as the title indicates, attempts to pull out the clinical applications in each area. Thus, although the *Handbook of Attachment* is not at all a clinical "how-to" book discussing therapeutic technique, it is nevertheless very interesting reading for clinicians and researchers who wish to understand theory and empirical research relevant to client conceptualization and treatment. Before discussing some of the content in the *Handbook of Attachment* that may be of particular interest, it may be helpful to provide a brief overview of attachment for those who may be unfamiliar with the theory.

Bowlby (1969/1982) theorized that infants are biologically predisposed to seek proximity to important caregivers, and that this predisposition evolved because it served to enhance the likelihood of infants' survival to reproductive age. Bowlby theorized that if a child feels safe enough to explore, the exploratory system will be activated and the child will go out from the secure base of the attachment figure to explore and learn. If a child feels frightened, threatened, distressed, ill, or tired, the attachment system becomes activated and the child will seek the safety of the attachment figure. Mary Ainsworth's seminal work on infant attachment established that there were predictable patterns in secure and insecure infants' attachment behaviors and found that these patterns were linked in theoretically expected ways with particular caregiver behaviors in the home (Ainsworth, Blehar, Waters, & Wall, 1978). Bowlby theorized that attachment behaviors continued to be important throughout the lifespan "from the cradle to the grave" (Bowlby, 1979, p. 129), and in fact research has shown that actual experiences with caregivers become represented cognitively as "internal working models" (e.g., Bretherton & Munholland, 2008; Main, Kaplan, & Cassidy, 1985). These cognitive representations provide a mechanism through which attachment continues to organize attention, cognition (e.g., interpretation of interpersonal events, social expectations), emotion, and social behavior throughout the life span (Crowell, Fraley, & Shaver, 2008).

The first edition (Cassidy & Shaver, 1999) provided essential reviews of the literature by well-known researchers and scholars across a wide range of topics. For this updated edition, chapters included in the first edition now integrate the new research that has emerged in the past 10 years; moreover, a number of new chapters have been added, addressing topics that have emerged as particularly important since the first edition. These new chapters focus on diverse topics, including attachment and neuroscience (Coan, 2008), foster and adoptive care (Dozier & Rutter, 2008), divorce (Feeney & Monin, 2008), middle and later life (Magai, 2008), middle childhood (Kerns, 2008), affect regulation (Mikulincer & Shaver, 2008), couple and family therapy (Johnson, 2008), and religious representations and behavior (Granqvist & Kirkpatrick, 2008). The chapter on attachment and couple and family therapy does an excellent job of illustrating how attachment can provide an empirically based, theoretical approach to understanding family relationships and their development over time; as well as provide a theory about the target of intervention (helping couples to provide one another with more of a secure base) and a metric by which to judge what constitutes sufficient change. Johnson outlines the research that supports attachment-based models of intervention with families. Even therapists who ascribe to different models of treatment may find something of value in Johnson's descriptions of attachment needs within the family. In sum, because the field has advanced so much in the past 10 years (e.g., a new integration of genetics and neuroscience with attachment, new developments in attachment-based family and couple therapy), those who have read the first edition of the *Handbook of Attachment* will still find the second edition illuminating.

Clinicians may be particularly interested in the chapters on empirical evidence linking attachment and psychopathology in childhood (DeKlyen & Greenberg, 2008)

and adulthood (Dozier, Stovall-McClough, & Albus, 2008), as well as the chapter reviewing the research on disorganized attachment (Lyons-Ruth & Jacobvitz, 2008). Disorganized attachment is thought to develop in the context of parental caregiving that is either frightening or frightened or is characterized by particular types of atypical/disrupted communication patterns, and childhood attachment disorganization is associated with later psychopathology. This excellent chapter also reviews the intriguing new findings regarding Gene × Environment interactions in predicting disorganization of attachment. These recent findings have provided support for a differential-susceptibility-to-care model. This research may be important in helping us understand why clients may have very different reactions to similar types of caregiving environments.

The chapter on the influence of early attachment on other relationships (Berlin, Cassidy, & Appleyard, 2008), including relationships with friends, romantic partners, and children, sheds a great deal of light on the interpersonal issues that clients typically present. This chapter focuses on the mediational role of attachment-based cognitive representations. This work can be helpful in conceptualizing clients' interpersonal difficulties.

One of the important ideas discussed in the Slade's (2008) chapter on implications of attachment for psychotherapy is the idea that different attachment styles are associated with different interpersonal and affect-regulation patterns. In some of the most recent research on attachment and psychotherapy, two underlying dimensions of attachment have been identified: avoidance and anxiety (Brennan, Clark, & Shaver, 1998). Those who are high in attachment anxiety tend to report higher levels of distress, focus their attention on that distress, and are overly preoccupied with closeness (although they may have difficulty with intimacy despite their preoccupation with closeness); those who are high in attachment avoidance tend to turn attention away from distress and avoid closeness with others (including the therapist). In short, those high in attachment anxiety are thought to exhibit a maximizing strategy, whereas those high in attachment avoidance tend to show a minimizing strategy. In contrast, those who are low in both attachment anxiety and avoidance (i.e., secure adults) tend to attend to emotion without being overwhelmed by it and without using a particularly maximizing or minimizing strategy (Fuendeling, 1998). Slade (2008) thoughtfully discusses some of the ways that these attachment-based strategies may play out in therapy and provides some ideas about how clinicians may strategically choose to engage or oppose these strategies depending on the clinical situation.

It is impossible to even briefly touch on the full variety of topics that are covered by the chapters in the *Handbook*, but in addition to chapters already mentioned, clinicians may be particularly interested in chapters that discuss research on attachment and grief (Shaver & Fraley, 2008), adult romantic attachment (Feeney, 2008), same-sex romantic attachment (Mohr, 2008), and cross-cultural patterns in attachment (van IJzendoorn & Sagi-Schwartz, 2008).

This is not a volume that is likely to be read in one sitting, from cover to cover. Each chapter focuses on a different aspect of attachment theory and research, and may cover developments over three decades of research. Likewise, it is not likely to be of interest to the average therapy client; the content is too scholarly for use as an adjunct to therapy. Finally, the *Handbook* would not easily be confused with a how-to book about techniques to improve therapy. Nevertheless, many clinicians are likely to find the *Handbook of Attachment* relevant to their thinking about their clients.

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We are hoping that your expertise can be used to enhance the knowledge of those who come to the ABCT website looking for information.

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Please take a moment to reflect on your experience at this year's annual convention in New York City. Your responses are of great value to us as we plan future meetings and better ways to serve you.

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ABCT Members Franklin and Woods Receive First-Ever NIMH R01 Grants for Behavioral Treatment of Trichotillomania

Brandon Weiss and David DiLillo, *University of Nebraska-Lincoln*

Trichotillomania (TTM) is an impulse-control disorder marked by recurrent pulling and removal of one's own hair that results in noticeable hair loss (American Psychiatric Association, 2000). TTM is a relatively rare disorder (NIH Office of Rare Diseases, n.d.), with lifetime prevalence estimates for adults ranging from 0.6% to 3.4% (Christenson, Pyle, & Mitchell, 1991). Nevertheless, those suffering from TTM experience significant impairment, including physical disabilities (Woods, Flessner, Franklin, Keuthen, et al., 2006), social and occupational/academic interference (Woods, Flessner, Franklin, Wetterneck, et al., 2006), and substantial comorbidity with mood and anxiety disorders (Woods, Flessner, Franklin, Keuthen, et al., 2006).

There has been a dearth of research on TTM, particularly in regard to treatment outcome. In fact, NIMH had not funded any TTM research until 2001. That trend is starting to change, however, with the awarding of the first two R01 grants by NIMH to evaluate behavioral interventions for TTM. Drs. Martin Franklin, Associate Professor of Clinical Psychology in Psychiatry at University of Pennsylvania School of Medicine and Director of the Child/Adolescent OCD, Tics, Trichotillomania, & Anxiety Group (COTTAGe), and Douglas Woods, Professor of Psychology at the University of Wisconsin-Milwaukee, are the PIs on these 5-year studies to investigate treatments for pediatric and adult TTM, respectively.

It is no coincidence that Drs. Franklin and Woods are the first investigators to receive such funding. Their collaboration in studying TTM and its treatment dates back to 2004 when they helped spearhead the Trichotillomania Impact Project (TIP; Franklin et al., 2008; Woods, Flessner, Franklin, Keuthen, et al., 2006), a large-scale Internet-based survey of adults with TTM and parents of children and adolescents with TTM. The TIP was funded by the Trichotillomania Learning Center (TLC), a nonprofit organization devoted to promoting awareness, research, and treatment of TTM, to examine the public health significance of TTM. Numerous scientific publications resulted from the TIP, which provided the necessary documentation of TTM's impact and for the psychometric properties of several key assessment instruments to support applications for large-scale NIMH funding. In 2008, both investigators were notified that they each would receive approximately $1.5 million to fund their respective projects.

Dr. Franklin's study is comparing a manualized behavior therapy (BT; Frankin & Tolin, 2007), consisting of psychoeducation, awareness training, stimulus control, and habit reversal training, to supportive counseling (SC) in treating pediatric TTM over an eight-session acute treatment phase. This large-scale treatment study will extend findings from a treatment development grant awarded to Dr. Franklin (notably, the first randomized controlled trial of any treatment for pediatric TTM) comparing BT to a minimal attention control (MAC) group. In that NIMH-funded R21 project, the BT manual was tested, refined, and then used in a randomized trail in which BT yielded superior outcomes following acute treatment compared to MAC; gains appeared to be well maintained through follow-up (Franklin, Cahill, Roth Ledley, Cardona, & Anderson, 2007; Tolin, Franklin, Diefenbach, Anderson, & Meunier, 2007). Dr. Franklin hopes to replicate and extend these findings with the current R01 study, which compares BT to a more rigorous comparison condition. Mediators and moderators of treatment will also be explored.

Dr. Woods' study is testing the efficacy of an Acceptance Enhanced Behavior Therapy for TTM (AEBT-T; Woods & Twohig, 2008), combining traditional BT techniques, which target habitual processes, with mindfulness/acceptance-based skills, which target emotional/cognitive regulatory processes. Manualized AEBT-T consists of 10 sessions conducted over 12 weeks and is being compared to a manualized psychoeducation and supportive therapy (PST) control group. Acceptability, mediators and moderators, and durability of treatment over a 6-month follow-up period will also be tested.

Dr. Franklin's and Dr. Woods' studies will be important additions to the evidence base on behavioral treatment of trichotillomania for children, adolescents, and adults. In commenting on the significance of Frankin's project, Dr. Joel Sherrill, the study's NIMH Program Officer, noted, "This study . . . constitutes the next step in developing an evidence base for behavior therapy for treating youth with TTM and providing strategies for clinicians. Given that the disorder usually onsets during late childhood or early adolescence and is associated with psychiatric comorbidities and substantial impairment in social and academic functioning, the study's focus on intervening early is particularly important. The focus on predictors, mediators, and mechanisms of response has the potential to inform future refinements to the intervention and more prescriptive, personalized approaches to treatment." Likewise, Dr. Michael Kozak, who serves as the NIMH Program Officer for Woods' project, commented that, "This study is a rigorous evaluation of a combination of learning-based procedures that individually have been found helpful for behavioral and emotional problems, but have not been subject to careful study in combination for trichotillomania, and offer some hope for outcomes that are superior to what are now available." Clearly, the recently funded projects are valued at NIMH. Drs. Franklin and Woods' success in obtaining R01s for their studies will hopefully open the door for additional research on behavioral interventions for this understudied, disabling disorder.

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16th Annual Awards & Recognition

Call *for* Award Nominations

The ABCT Awards and Recognition Committee, chaired by Shelley Robbins of Holy Family University, is pleased to announce the 2010 awards program. Nominations are requested in all categories listed below. Please see the specific nomination instructions in each category.

Please note that award nominations may not be submitted by current members of the ABCT Board of Directors.

Outstanding Contribution by an Individual for for Research Activities

Eligible candidates for this award should be members of ABCT in good standing who have provided significant contributions to the literature advancing our knowledge of behavior therapy. Past recipients of this award include Alan E. Kazdin in 1998, David H. Barlow in 2001, Terence M. Keane in 2004, and Thomas Borkovec in 2007. Please complete an on-line nomination form at www.abct.org. Then, e-mail the completed forms to srobbins@holyfamily.edu. Also, mail a hard copy of your submission to ABCT, Outstanding Researcher, 305 Seventh Ave., New York, NY 10001.

Outstanding Mentor

This year we are seeking eligible candidates for the Outstanding Mentor award who are members of ABCT in good standing who have encouraged the clinical and/or academic and professional excellence of psychology graduate students, interns, postdocs, and/or residents. Outstanding mentors are considered those who have provided exceptional guidance to students through leadership, advisement, and activities aimed at providing opportunities for professional development, networking, and future growth. Appropriate nominators are current or past students of the mentor. The first recipient of this award was Richard Heimberg in 2006, followed by G. Terence Wilson in 2008. Please complete an on-line nomination form at www.abct.org. Then, e-mail the completed forms to srobbins@holyfamily.edu. Also, mail a hard copy of your submission to ABCT, Outstanding Mentor, 305 Seventh Avenue, NY, NY 10001.

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Each award will be given to one student based on his/her doctoral dissertation proposal. The research should be relevant to behavior therapy. Accompanying this honor will be a $1,000 award to be used in support of research (e.g., to pay participants, to purchase testing equipment) and/or to facilitate travel to the ABCT convention. Eligible candidates for this award should be student members who have already had their dissertation proposal approved and are investigating an area of direct relevance to behavior therapy, broadly defined. A student's dissertation mentor should complete the nomination. Please complete an on-line nomination form at www.abct.org. Then, e-mail the completed forms to srobbins@holyfamily.edu. Also, mail a hard copy of your submission to ABCT, Student Dissertation Awards, 305 Seventh Ave., New York, NY 10001.

Distinguished Friend to Behavior Therapy

Eligible candidates for this award should NOT be members of ABCT, but are individuals who have promoted the mission of cognitive and/or behavioral work outside of our organization. Applications should include a letter of nomination, three letters of support, and a curriculum vitae of the nominee. Past recipients of this award include Jon Kabat-Zinn, Nora Volkow, John Allen, Anne Fletcher, Jack Gorman, Art Dykstra, and Michael Davis. Please complete an on-line nomination form at www.abct.org. Then, e-mail the completed forms to srobbins@holyfamily.edu. Also, mail a hard copy of your submission to ABCT, Distinguished Friend to BT Award, 305 Seventh Ave., New York, NY 10001.

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2010 Call for Nominations

Every nomination counts! Encourage colleagues to run for office or consider running yourself. Nominate as many full members as you like for each office. The results will be tallied and the names of those individuals who receive the most nominations will appear on the election ballot next April. **Only those nomination forms bearing a signature and postmark on or before February 1, 2010, will be counted.**

Nomination acknowledges an individual's leadership abilities and dedication to behavior therapy and/or cognitive therapy, empirically supported science, and to ABCT. When completing the nomination form, please take into consideration that these individuals will be entrusted to represent the interests of ABCT members in important policy decisions in the coming years. Contact the Leadership and Elections Chair for more information about serving ABCT or to get more information on the positions.

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