

DISCUSSION 3

Prior to beginning work on this week's discussion, please review Standard 3: Human Relations (Links to an external site.) in the APA's Ethical Principles of Psychologists and Code of Conduct. Please also read the Asay and Lal (2014) "Who's Googled Whom? Trainees' Internet and Online Social Networking Experiences, Behaviors, and Attitudes with Clients and Supervisors," Harris and Robinson Kurpius (2014) "Social Networking and Professional Ethics: Client Searches, Informed Consent, and Disclosure," and Taylor, McMinn, Bufford, and Chang (2010) "Psychologists' Attitudes and Ethical Concerns Regarding the Use of Social Networking Web Sites" articles.

For this discussion, you will examine ethical issues encountered by clinical and counseling psychologists in the digital age. Begin by reviewing the cases of Dr. Arnold and Dr. Washington listed below and selecting one of these ethical dilemmas for analysis.

Case 1

Dr. Arnold is a clinical psychologist who specializes in child and adolescent issues. From time to time, she provides consultation on high lethality cases within the juvenile court system. Recently, she was referred a case involving a 15-year-old male who has a history of aggression, angry outburst, destructive behavior, and cyberstalking. Concerned for her safety and well-being, Dr. Arnold input the client's name into a search engine, which yielded the client's social network page. Dr. Arnold is uncertain whether or not to look at the client's social network page.

Case 2

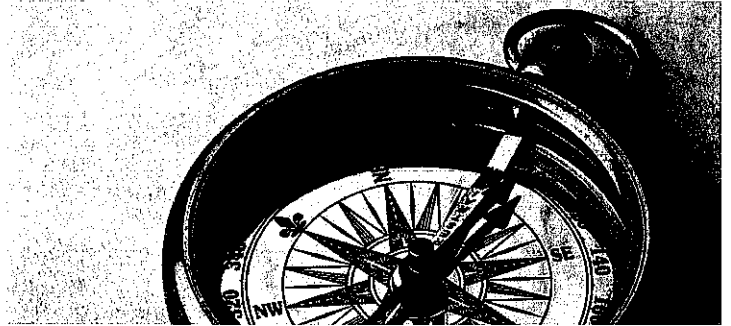
Dr. Washington is a counseling psychologist who specializes in trauma and self-harming behavior. Recently, he received a "friend request" from a former client who he provided individual therapy to six months ago. Dr. Washington opted not to accept the "friend request," but considered sending a private message to the client with the social networking policy from his informed consent. Dr. Washington is uncertain whether or not to send the private message to the client.

In your initial post, assume the role of a colleague to the doctor named and analyze the ethical issues encountered in your chosen case. Given the situation described in the case study, recommend how your colleague should proceed. Provide support for your response by citing the required articles for this discussion. Consider the current and potential actions of your colleague and explain whether or not he or she is currently, or potentially will be, in violation of the APA's Ethical Principles of Psychologists and Code of Conduct. Provide support for your explanation by citing Standard 3: Human Relations (Links to an external site.) in the APA's Ethical Principles of Psychologists and Code of Conduct. Explain how your colleague might avoid this type of ethical dilemma in the future. Describe what policy or policies you might put in place if you were your colleague.



MEMBERSTOPICSPUBLICATIONS & DATABASESPSYCHOLOGY HELP CENTERNEWS & EVENTSSCIENCEEDUCATIONCAREERSABOUT APA

Ethical Principles of Psychologists and Code of Conduct



(javascript: openSocialShare('https://twitter.com/st

mini=true&url=https%3a%2f%2fwww.apa.org%2fethics%2fcode%2findex&title=Ethical+prnciples+of+psychologists+and+code+of+conduct&summary=The+American+Psychological+Associatio

Including 2010 and 2016 Amendments

Effective date June 1, 2003 with amendments effective June 1, 2010 and January 1, 2017. Copyright © 2017 American Psychological Association. All rights reserved.

> **Introduction and Applicability**

> **Preamble**

> **General Principles**

> **Section 1: Resolving Ethical Issues**

> **Section 2: Competence**

▼ **Section 3: Human Relations**

3.01 Unfair Discrimination

In their work-related activities, psychologists do not engage in unfair discrimination based on age, gender, gender identity, race, ethnicity, culture, national origin, religion, sexual orientation, disability, socioeconomic status, or any basis proscribed by law.

3.02 Sexual Harassment

Psychologists do not engage in sexual harassment. Sexual harassment is sexual solicitation, physical advances, or verbal or nonverbal conduct that is sexual in nature, that occurs in connection with the psychologist's activities or roles as a psychologist, and that either (1) is unwelcome, is offensive, or creates a hostile workplace or educational environment, and the psychologist knows or is told this or (2) is sufficiently severe or intense to be abusive to a reasonable person in the context. Sexual harassment can consist of a single intense or severe act or of multiple persistent or pervasive acts. (See also Standard 1.08, Unfair Discrimination Against Complainants and Respondents.)

3.03 Other Harassment

Psychologists do not knowingly engage in behavior that is harassing or demeaning to persons with whom they interact in their work based on factors such as those persons' age, gender, gender identity, race, ethnicity, culture, national origin, religion, sexual orientation, disability, language, or socioeconomic status.

3.04 Avoiding Harm

(a) Psychologists take reasonable steps to avoid harming their clients/patients, students, supervisees, research participants, organizational clients, and others with whom they work, and to minimize harm where it is foreseeable and unavoidable.

(b) Psychologists do not participate in, facilitate, assist, or otherwise engage in torture, defined as any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person, or in any other cruel, inhuman, or degrading behavior that violates 3.04(a).

3.05 Multiple Relationships

(a) A multiple relationship occurs when a psychologist is in a professional role with a person and (1) at the same time is in another role with the same person, (2) at the same time is in a relationship with a person closely associated with or related to the person with whom the psychologist has the professional relationship, or (3) promises to enter into another relationship in the future with the person or a person closely associated with or related to the person.

A psychologist refrains from entering into a multiple relationship if the multiple relationship could reasonably be expected to impair the psychologist's objectivity, competence, or effectiveness in performing his or her functions as a psychologist, or otherwise risks exploitation or harm to the person with whom the professional relationship exists.

Multiple relationships that would not reasonably be expected to cause impairment or risk exploitation or harm are not unethical.

(b) If a psychologist finds that, due to unforeseen factors, a potentially harmful multiple relationship has arisen, the psychologist takes reasonable steps to resolve it with due regard for the best interests of the affected person and maximal compliance with the Ethics Code.

(c) When psychologists are required by law, institutional policy, or extraordinary circumstances to serve in more than one role in judicial or administrative proceedings, at the outset they clarify role expectations and the extent of confidentiality and thereafter as changes occur. (See also Standards 3.04, Avoiding Harm (#304), and 3.07, Third-Party Requests for Services (#307).)

3.06 Conflict of Interest

Psychologists refrain from taking on a professional role when personal, scientific, professional, legal, financial, or other interests or relationships could reasonably be expected to (1) impair their objectivity, competence, or effectiveness in performing their functions as psychologists or (2) expose the person or organization with whom the professional relationship exists to harm or exploitation.

3.07 Third-Party Requests for Services

When psychologists agree to provide services to a person or entity at the request of a third party, psychologists attempt to clarify at the outset of the service the nature of the relationship with all individuals or organizations involved. This clarification includes the role of the psychologist (e.g., therapist, consultant, diagnostician, or expert witness), an identification of who is the client, the probable uses of the services provided or the information obtained, and the fact that there may be limits to confidentiality. (See also Standards 3.05, Multiple Relationships (#305), and 4.02, Discussing the Limits of Confidentiality.)

3.08 Exploitative Relationships

Psychologists do not exploit persons over whom they have supervisory, evaluative or other authority such as clients/patients, students, supervisees, research participants, and employees. (See also Standards 3.05, Multiple Relationships (#305); 6.04, Fees and Financial Arrangements (?item=9#604); 6.05, Barter with Clients/Patients (?item=9#605); 7.07, Sexual Relationships with Students and Supervisees (?item=10#707); 10.05, Sexual Intimacies with Current Therapy Clients/Patients (?item=13#1005); 10.06, Sexual Intimacies with Relatives or Significant Others of Current Therapy Clients/Patients (?item=13#1006); 10.07, Therapy with Former Sexual Partners (?item=13#1007); and 10.08, Sexual Intimacies with Former Therapy Clients/Patients (?item=13#1008).)

3.09 Cooperation with Other Professionals

When indicated and professionally appropriate, psychologists cooperate with other professionals in order to serve their clients/patients effectively and appropriately. (See also Standard (javascript:goToItem(7);) 4.05, Disclosures (?item=7#405).)

3.10 Informed Consent

(a) When psychologists conduct research or provide assessment, therapy, counseling, or consulting services in person or via electronic transmission or other forms of communication, they obtain the informed consent of the individual or individuals using language that is reasonably understandable to that person or persons except when conducting such activities without consent is mandated by law or governmental regulation or as otherwise provided in this Ethics Code. (See also Standards 8.02, Informed Consent to Research (?item=11#802); 9.03, Informed Consent in Assessments (?item=12#903); and 10.01, Informed Consent to Therapy (?item=13#1001).)

(b) For persons who are legally incapable of giving informed consent, psychologists nevertheless (1) provide an appropriate explanation, (2) seek the individual's assent, (3) consider such persons' preferences and best interests, and (4) obtain appropriate permission from a legally authorized person, if such substitute consent is permitted or required by law. When consent by a legally authorized person is not permitted or required by law, psychologists take reasonable steps to protect the individual's rights and welfare.

(c) When psychological services are court ordered or otherwise mandated, psychologists inform the individual of the nature of the anti services, including whether the services are court ordered or mandated and any limits of confidentiality, before proceeding.

(d) Psychologists appropriately document written or oral consent, permission, and assent. (See also Standards 8.02, Informed Consent to Research (?item=11#802)

; 9.03, Informed Consent in Assessments (?item=12#903); and 10.01, informed Consent to Therapy (?item=13#1001).)

3.11 Psychological Services Delivered to or Through Organizations

(a) Psychologists delivering services to or through organizations provide information beforehand to clients and when appropriate those directly affected by the services about (1) the nature and objectives of the services, (2) the intended recipients, (3) which of the individuals are clients, (4) the relationship the psychologist will have with each person and the organization, (5) the probable uses of services provided and information obtained, (6) who will have access to the information, and (7) limits of confidentiality. As soon as feasible, they provide information about the results and conclusions of such services to appropriate persons.

(b) If psychologists will be precluded by law or by organizational roles from providing such information to particular individuals or groups, they so inform those individuals or groups at the outset of the service.

3.12 Interruption of Psychological Services

Unless otherwise covered by contract, psychologists make reasonable efforts to plan for facilitating services in the event that psychological services are interrupted by factors such as the psychologist's illness, death, unavailability, relocation, or retirement or by the client's/patient's relocation or financial limitations. (See also Standard 6.02c, Maintenance, Dissemination, and Disposal of Confidential Records of Professional and Scientific Work (?item=9#602c).)

Section 4: Privacy and Confidentiality

Section 5: Advertising and Other Public Statements

Section 6: Record Keeping and Fees

Section 7: Education and Training

Section 8: Research and Publication

Section 9: Assessment

Section 10: Therapy

History and Effective Date

Amendments to the 2002 "Ethical Principles of Psychologists and Code of Conduct" in 2010 and 2016

“
(javascript:toggleCitation());

f
(#)

🐦 (javascript:openSocialShare('https://twitter.com/share?'))

url=https%3a%2f%2fwww.apa.org%2fethics%2fcode%2findex&via=APA&text=Ethical+principles+of+psychologists+and+code+of+condu

Additional Resources

2018 APA Ethics Committee Rules and Procedures [📄](#) (PDF, 197KB)

Revision of Ethics Code Standard 3.04 (Avoiding Harm)

APA Ethical Principles of Psychologists and Code of Conduct (2017) [📄](#) (PDF, 272KB)

2016 APA Ethics Committee Rules and Procedures

Revision of Ethical Standard 3.04 of the "Ethical Principles of Psychologists and Code of Conduct" (2002, as Amended 2010) [📄](#) (PDF, 26KB)

2010 Amendments to the 2002 Principles of Psychologists and Conduct" (PDF, 39KB)

Advancing psychology to benefit society and improve people's lives



PSYCHOLOGISTS

- Standards & Guidelines
- PsycCareers
- Divisions of APA
- Ethics
- Early Career Psychologists
- Continuing Education
- Renew Membership

STUDENTS

- Careers in Psychology
- Accredited Psychology Programs
- More for Students

ABOUT PSYCHOLOGY

- Science of Psychology
- Psychology Topics

PUBLICATIONS & DATABASES

- APA Style
- Journals
- Books
- Magination Press
- Videos
- PsycINFO
- PsycARTICLES
- More Publications & Databases

ABOUT APA

- Governance
- Directorates and Programs
- Policy Statements
- Press Room
- Advertise with Us
- Corporate Supporters
- Work at APA
- Contact Us

MORE APA WEBSITES

- ACT Raising Safe Kids Program
- American Psychological Foundation
- APA Annual Convention
- APA Center for Organizational Excellence
- APA Services, Inc.

- APA PsycNET®
- APA Style
- Online Psychology Laboratory
- Psychology: Science in Action

GET INVOLVED

- Advocate
- Participate
- Donate
- Join APA

[Privacy Statement](#) [Terms of Use](#) [Accessibility](#) [Website Feedback](#) [Sitemap](#)

FOLLOW APA

[more](#)

Who's Googled Whom? Trainees' Internet and Online Social Networking Experiences, Behaviors, and Attitudes With Clients and Supervisors

Penelope A. Asay
Illinois School of Professional Psychology

Ashwini Lal
California State Polytechnic University

The ubiquity of the Internet and online social networking creates rapidly developing opportunities and challenges for psychologists and trainees in the domains of relationships, privacy, and connection. As trainees increasingly are natives of an Internet culture, questions arise about the ways in which developing psychologists may view Internet issues and the guidance they receive from professional psychologists for whom the Internet is a significant cultural shift. A national survey of graduate students ($n = 407$) assessed student Internet behaviors (e.g., "Googling" clients, online social networking), training about online issues, attitudes toward online social networking and client or supervisor contact via these networks, and fears and comfort about making decisions regarding these networks. The survey also assessed what students reported they would do and what they would think if clients and supervisors contacted them via social networks. Results indicate that most trainees have changed and monitored their online presence since beginning graduate school. A quarter of respondents had "Googled" clients, and almost half had "Googled" supervisors. A small number indicated that both clients and supervisors had reported "Googling" the trainee. Students expressed concerns about making ethical decisions about online social networks. Half reported discussing Internet issues in their graduate training programs, whereas a quarter indicated they had discussed Internet issues at their training sites. Implications for training are discussed, with recommendations of program disclosure of Internet policies to students, discussion of Internet issues before trainee clinical work, role plays of ethical issues, and supervisor-initiated discussions of Internet issues.

Keywords: ethics, Internet, privacy, supervision, training

The social shifts occurring as a result of the rise of the Internet have naturally attracted much popular and scholarly attention. The implications for personal and professional lives, for what it means to be social, relational beings and how and what people both *know* and *know about* each other are substantial. A *New York Times* article (Rosen, 2010) proclaimed that the Internet means "the end of forgetting." Traumas, triumphs, missteps, and mundane moments no longer exist merely in personal pasts; rather, they may exist for all to see, for all time. In a world in which people can now be—and are expected to be—constantly connected, it may be increasingly difficult to carve out what is uniquely personal. Webb

and Widseth (2012) wrote about the "erosion of aloneness." Private moments are captured, posted, and sometimes only enjoyed—or experienced—after public recognition and feedback. For the new generation, they wrote, "everything is instantaneous; everything is public and immediate" (Webb & Widseth, 2012, p. 165).

Relationally, the Internet and online social networking sites like Facebook are changing how people interact and how people experience self and the world. Work has investigated the implications of technology and online social networking for conceptions of personal privacy, in-person and online relationships (Turtle, 2010), and even changing experiences with death (Kasket, 2012). Recent work suggests that online relationships and interactions have very real impacts on mood and mental health. These impacts can be positive, facilitating interaction and feelings of connectedness and comfort (Alloway & Alloway, 2012; Baker & Oswald, 2012), and negative, especially in increasing instances of cyberbullying (Sengupta & Chaudhuri, 2011; Siegel, 2012). Though some studies have shown an increase in depressive symptoms, for example, with greater use of the Internet (Kraut et al., 2002; Selfhout, Branje, Delsing, Ter Bogt, & Meeus, 2009), others have shown there to be benefits of general Internet use and online social networking (Morgan & Cotton, 2003).

Use of Internet Information

The individual responsibility of what and how people share on the Internet presents a novel realm of choice. Deciding what to post on a blog or social networking site may be momentary

This article was published Online First March 17, 2014.

PENELOPE A. ASAY earned her PhD in counseling psychology from the University of Maryland. She is associate professor at the Illinois School of Professional Psychology, Argosy University, Chicago. Her research interests include clinical training and existential issues in the Internet Age.

ASHWINI LAL earned his PsyD from the Illinois School of Professional Psychology. He completed his APA accredited pre-doctoral internship at Northport Veterans Affairs Medical Center, Northport, New York and his post-doctoral residency at California State Polytechnic University, Pomona, California. His interests include mood and anxiety disorders, loss, transitions, and health-behavior related changes. He is currently a contributing author to the website Psychology In Everyday Life.

CORRESPONDENCE CONCERNING THIS ARTICLE should be addressed to Penelope A. Asay, Associate Professor, Illinois School of Professional Psychology, Argosy University, Chicago, 225 N. Michigan Avenue, Chicago, IL 60601. E-mail: pasay@argosy.edu

decisions with long-term consequences. Employers conduct Internet searches of potential and current employees. Patients seek out information before meeting physicians and psychotherapists. Indeed, Gibbs, Ellison, and Lai (2011) regarded "Googling" (e.g., conducting online searches) those encountered in online dating activities as one example of an "uncertainty reduction strategy" (p. 72).

A survey by the Society for Human Resource Management in 2011 reported that 26% of organizations were using search engines and 18% of organizations were using social networking sites to screen job candidates (Society for Human Resource Management, 2011). Results also may have suggested a trend involving a change from "Googling" potential employees to searching online social networking sites. An article in the *New England Journal of Medicine* (Gorrindo & Groves, 2008) emphasized various issues surrounding the use of the Internet and the ease with which physician information can be obtained. These authors discussed and explored the problems associated with the information the Internet has made available to patients and described methods by which a physician can protect him or herself. The various methods of self-protection included increasing privacy settings on social networking sites, removing slanderous information, talking with patients about how they use the Internet, and creating a professional Web page that allows for specific content to be posted.

At the same time, opportunities for utilizing the Internet for professional practice have blossomed. The APA Practice Directorate (2009) advised, "Since you don't know by which online channel someone will find your practice, connecting all the places where you appear on the Web is important" (p. 8). Psychologist Keely Kolmes developed a Private Practice Social Media Policy that she shares on her Web site (Kolmes, 2013). The policy addresses specifically the issues of "Friending," "Use of Search Engines," "Following" (Twitter, blogs), and the almost quaint by comparison "E-mail." It has rapidly become common practice for clients/patients to conduct Internet searches for health information (Fox, 2011; Lehavot, 2009; Zur, Williams, Lehavot, Knapp, 2009). In light of the new "consumer" mentality, Gottlieb (2012) suggested that Internet presence is essential for professional practice and psychotherapists should consider how to utilize Web sites, blogs, and social networking to "brand" themselves.

Privacy

Kaslow, Patterson, and Gottlieb (2011) asserted that although people know nothing on the Internet is private, "many people willingly post personal information based on a mistaken assumption of privacy" (p. 3). Yet, the very concept of privacy is shifting, authors argued, for new generations. This "new privacy" is "about controlling how many people know-not if anyone knows" (Melber, 2008, p. 22). As the concept of privacy in psychotherapy is integral to its practice and addressed in the Ethical Principles of Psychologists and Code of Conduct (American Psychological Association, 2002), refining or redefining "privacy" is no small feat.

Realistically, individuals can only control so much of what is kept private. Once on the Internet, it is usually impossible to remove information, true or false. Being a deeply relational endeavor involving (almost exclusively one-way) personal information disclosure, psychotherapy is particularly impacted by these rapid changes in knowledge acquisition. Psychotherapy literature

emphasizes the establishment of trust and the importance and meaningfulness of timing and intention in disclosure. Yet, with information available to both client and psychotherapist outside of psychotherapy, such dimensions are less controllable. Curious clients (and psychotherapists) can find information about political contributions, home purchases, and whereabouts (Gabbard, Kasaw, & Perez-Garcia, 2011). Taylor, McMinn, Bufford, and Chang (2010) referred to this as the "demise of intentionality," and suggested, "full intentionality is a thing of the past" (p. 157). Psychotherapists (and clients) can also unintentionally find information online or inadvertently have online interaction (e.g., Facebook suggestions for "People You May Know"). The relational and ethical implications for seeking out online information, inadvertently finding information, and requesting contact via social networking are quite different. Considerations of intention, impact, and self-disclosure are crucial factors in deciding what a psychotherapist does with this information.

Ethics

Much of the literature has explored concerns about ethical issues, training, and clinical implications of "e-professionalism" (Barnett & Russo, 2009; DiLillo & Gale, 2011; Kaslow et al., 2011; Lehavot, 2009; Lehavot, Barnett, & Powers, 2010; Merdian, 2012). A few empirical studies have investigated both graduate students' and psychologists' online experience and attitudes (DiLillo & Gale, 2011; Lehavot et al., 2010; Tunick, Mednick & Conroy, 2011). In general, results indicated that psychologists and trainees are experiencing these online interactions with some regularity. In a sample of child psychologists and trainees, 32% reported reading blogs and social networking sites of their clients for a variety of reasons, including curiosity and concern (Tunick, Mednick & Conroy, 2011). "Googling" clients is not uncommon, with 32% of that sample reporting doing so, 27% of a sample of graduate students (Lehavot et al., 2010), and almost the entirety of a sample of psychology doctoral students (97.8%), despite the majority of these believing it was unacceptable to do so (DiLillo & Gale, 2011). Yet, in a sample of graduate students and psychologists, participants reported almost never discussing aspects of online behavior with clients (Taylor et al., 2010). These issues clearly exist in psychotherapy and raise concerns and questions that evolve more rapidly than the answers.

Training and Supervision

Students are being trained in the midst of these rapidly evolving technologies and emerging issues. A real gap in the literature appears to be attention to the critical realm of supervision. The supervisory relationship is integral not only to providing effective service to clients, but also to developing the trainee's competence and professionalism. The ways in which supervisors model behavior in the realm of e-professionalism and their ability to discuss these issues with trainees are important. Information seeking on the part of supervisors may be a part of hiring, of monitoring professional development, or of simple curiosity. Supervisors, of course, are just as susceptible to being "Googled" by their supervisees and of having the "small world" problems that supervisees may have with their clients. Similar implications arise in terms of what is known by whom, how, and

how (or whether) that knowledge is shared in the supervisory relationship.

Just as between trainee and client, cohort differences may be important between supervisee and supervisor. Supervisors may be less knowledgeable than trainees about constantly changing Internet issues, making professional guidance in this realm difficult (Kolmes, 2012). Prensky (2001) identified "digital immigrants," those who have seen the development of the Internet in their lifetimes, and "digital natives," the cohort of people who have grown up with the Internet. In a survey of practicing psychologists and graduate students, not one participant over the age of 54 reported having social networking site profile (Taylor et al., 2010). Other work appears to refute this finding (Hogeboom, McDermott, Perrin, Osman, Bell-Ellison, 2010; Wayne, 2010). At the same time, supervisors may have more expertise and sophisticated ways of thinking about implications of Internet issues in therapy. Still, with technology emerging rapidly, it is likely that "digital natives" have a new cultural experience.

Internet Issues as Cultural Competence

As literature has discussed the new Internet culture (Schirmer, 2007), with its "inhabitants" described as "digital natives" (Prensky, 2001), "Gen-i" (for "Generation i") (Yip, 2010) who are "bilingual" in verbal and digital communication (Lehavot, Barnett, & Powers, 2010), it may be helpful to frame dealing with issues of the Internet as a new realm of cultural competence. As with trainees who are more multiculturally competent than their supervisors, trainees who are more Internet savvy may feel at a loss. Trainees may be actively or passively discouraged from addressing Internet issues in supervision, or they may find supervisor responses unhelpful or minimizing (Ancis & Ladany, 2001; Burkard et al., 2006). Authors have suggested this "generation gap" should not preclude rich discussions and encourage supervisors to educate themselves via the literature and their trainees (Myers, Endres, Ruddy, & Zalikovsky, 2012). Graduate programs have also been encouraged to create and communicate clear Internet boundaries and policies (Kaslow et al., 2011; Kolmes, 2012; Myers et al., 2012).

Thus, the current study was designed to investigate graduate student trainees' experiences with, comfort with, and concerns about Internet issues in their training. The study assessed not only trainees' own behaviors, but also their knowledge of behaviors and feelings about the behaviors of their clients and their supervisors. Because there is no current literature addressing the prevalence of these behaviors in supervision, the authors thought this dimension crucial to add to the discussion. The study also assessed what trainees reported they would do, think, and feel in reaction to social networking contact by both clients and supervisors.

Method

Participants

A total of 407 participants completed the survey. The respondents were 80.6% white, 5.7% African American/black, 3.8% Asian, 4.6% Hispanic, and 5.2% other. Participants identified themselves as 84.4% female, 15.3% male, and 0.3% other. Most participants were attending a clinical psychology program

(86.6%), 12% were attending a counseling psychology program, and 1.4% indicated other. Of the participants, 6.5% were enrolled in an M.A. program, 27.8% were enrolled in a Ph.D. program, and 67.6% were enrolled in a Psy.D. program. Participants identified as humanistic/existential (14%), psychodynamic/analytic (30.8%), client-centered (23.8%), cognitive-behavioral (50.1%), feminist/multicultural (8.7%), and other (15.7%). Participants' training sites included counseling center (39%), hospital (43%), community health center (59.9%), middle/high school (18%), VA hospital (6.7%), and other (36.9%).

Procedure

After obtaining IRB approval, data were collected in two waves: in the first wave, the primary investigator sent an e-mail invitation to contacts in Clinical Psychology PsyD programs at several campuses of a national university. In the second wave, the primary investigator sent an e-mail invitation to contacts listed on the APA Web site for all APA-accredited doctoral programs in counseling, clinical, and combined psychology. In both waves, contacts were asked to distribute the invitation to students in their doctoral program. Participants clicked on a link that took them to an informed consent page. Upon clicking "Next," they went to the survey.

Measure

The researchers created a survey instrument for the purposes of exploring online social networking habits, experiences, and concerns. The survey consisted of *yes/no* and Likert-scale questions in addition to having blank space for any additional comments from participants. The survey included questions about habits and attitudes, ethical concerns, and level of comfort. The survey included questions regarding thoughts about and experiences with clients and with supervisors. A scale that was created to assess trainees' professional self-disclosure attitudes and behaviors did not have adequate internal consistency, and was thus dropped from analysis.

Results

Personal and Training Behavior Prevalence

Of the 407 participants, 93% (378) indicated they have a social networking account. Most thought social networking accounts were a good way to stay in touch with friends (88.4%), and only 6.9% reported they were a waste of time (these two responses were not mutually exclusive). Since starting graduate school, 74% indicated they had changed the content of their social networking accounts: 89.7% changed privacy settings, 61.1% modified pictures, and 56.8% changed personal information. Since starting graduate school, 74% of participants reported "Googling" themselves. Two thirds (64.4%) indicated they had discussed Internet issues in their graduate programs. Most often, these discussions were in ethics classes (51.5%), followed by professional orientation classes (44.6%), special discussions (24.8%), and other (25.6%). In contrast, only a fourth of students (25.6%) indicated they had discussed these issues at training sites.

Table 1
Professional Behavior Prevalence

Statements	Yes (%)
I have had other professional colleagues contact me via my social networking account	56.2
I have discussed social networking accounts with my clients	25.9
I have had my supervisors contact me via my social networking account	8.5
I have had clients contact me via my social networking account	6.5
I have searched the Internet for other professional colleagues	63.7
I have searched the Internet for my supervisor	44.5
I have searched the Internet for my clients	25.6
Other professional colleagues have told me they searched the Internet for me	24.1
My clients have told me they searched the Internet for me	11.4
My supervisor has told me he/she searched the Internet for me	2.7

Professional Behavior Prevalence

Responses suggest that, overall, most trainees are neither seeking out information or contact nor are they aware of being the subject of searches or online contact (see Table 1). Still, more than a fourth (25.6%) indicated they had "Googled" clients, almost half (44.6%) indicated they had "Googled" supervisors, and almost two thirds (63.7%) had "Googled" other professional colleagues. Some reported that clients had disclosed to them that they had "Googled" the trainee (11.4%), whereas almost none indicated their supervisors had (2.7%). As for social networking sites, 6.5% indicated clients had contacted them via these sites, 8.5% indicated supervisors had contacted them, and 56.2% indicated other colleagues contacted them. In psychotherapy, the majority (74.1%) of participants indicated they had not discussed social networking at all with clients. Of those who had, the client brought up the issue the majority of the time (61.6%).

Concerns and Comfort

In terms of ethical concerns, 72.5% of respondents indicated they were either "concerned" or "very concerned" about the ethical implications of contacting their clients on social networking sites. Forty-three percent indicated concern about the ethical implications of contacting their supervisors while engaged in a supervisory relationship; however, once the relationship had concluded, only 21% indicated concern.

In terms of comfort, 90.8% of respondents reported they would be "uncomfortable" or "very uncomfortable" if their clients contacted them via social networking while they were engaged in psychotherapy. Similarly, 87.1% reported discomfort with contact after the psychotherapy had concluded. If a supervisor contacted them while in an ongoing supervisory relationship, 58.1% indicated they would be "uncomfortable" or "very uncomfortable." Once the relationship had concluded, only 30.5% anticipated discomfort with a supervisor's contact.

More than half (54.5%) indicated they would be concerned about making an ethical decision about contact via their social networking account, and fewer than half (40.3%) indicated they would feel comfortable making an ethical decision about such contact. Tables 2 and 3 indicate what students would do and think if clients and supervisors contacted them. It seems notable that whereas almost all (96.3%) report they would discuss social network account contact with clients, fewer (72.1%) would bring up the issue with their supervisors. Interestingly, a minority indicated

they viewed such contact as an invasion of privacy (24.1% for client contact; 17.4% for supervisor contact).

Discussion

The current study suggests that most trainees seem aware and concerned about their own personal and professional Internet presence. They reported monitoring their Internet presence since beginning graduate training and modifying their social networking site(s). These behaviors suggest that graduate students are aware that their Internet presence is relevant to their training and professional development, as the literature recommended (Barnett & Russo, 2009), and as previous findings have suggested (Taylor et al., 2010). Respondents also reported attention to these issues in about two thirds of their graduate programs, but only a quarter of their training sites. They are concerned about their ability to make an ethical decision involving social networking contact, and fewer than half were comfortable about making such a decision. Such concerns seem to be increasingly likely to be realized: 11.4% reported they have had clients tell them they had "Googled" the trainee, slightly higher than findings in previous studies (7%; Lehavot et al., 2010). Perhaps these results suggest students are aware of some lack of guidance and training in this area and reflect an appropriate response to a developing professional issue. Notably, trainees distinguish that during or after psychotherapy, online social networking contact from clients is uncomfortable, whereas they are more comfortable with supervisor contact, especially after the conclusion of the relationship.

The current study supports previous findings about "Googling" clients: a fourth of the current sample reported having done so. This is a similar number to findings by Lehavot et al. (2010), who

Table 2
Hypothetical Responses to Client Contact via Online Social Networking Site

I would . . .	Percent %
Discuss it with my client	96.3
Tell my supervisor	94.5
Tell other professional colleagues	30.2
Consider it an invasion of my privacy	24.1
Consider it a sign of some client psychopathology	6.6
Consider it a sign of the strength of the relationship	5.8
Not think too much of it at all	2.1

Table 3
*Hypothetical Responses to Supervisor Contact via Social
 Networking Site*

I would . . .	Percent %
Discuss it with my supervisor	72.1
Not think too much of it at all	22.9
Tell other professional colleagues	21.9
Tell my training department/member of my school	20.3
Consider it an invasion of my privacy	17.4
Consider it a sign of the strength of the relationship	12.1
Consider it a sign of some supervisor psychopathology	2.9

reported 27% of graduate students had "Googled" clients. Interestingly, a recent study by DiLillo and Gale (2011) reported that almost their entire sample of graduate students (97.8%) reported searching for at least one client's information in the past year. At the same time, their sample reported clients were aware of overwhelming majority of these searches (Internet: 82.1%; social networking site: 82.5%), although it is unclear whether this was a priori or after the fact. The current study (and previous studies) did not ascertain the client's knowledge about these searches, and this discrepancy does raise interesting questions. Possibly, such searches are rapidly becoming a more common occurrence within the psychotherapy hour, or at the request of the client, especially with minors (Tunick, Mednick, & Conroy, 2011). In any case, more detail about how such searches are conducted is warranted, especially when they are at the express request or in collaboration with the client. Internet searches can be used and used well therapeutically. Clinton, Silverman, and Brendel (2010) addressed this very notion. They proposed a model of "patient-targeted Googling" that considered the "intention of searching, the anticipated effect of gaining information online, and its potential value and risk for treatment" (p. 105). Their model addressed 6 questions: reason for conducting the search, search benefit or harm to the treatment, addressing whether informed consent should be obtained, determining whether to share the results with the patient, deciding whether to document the findings in the patient's record, and continually monitoring one's own motivations for and the risks versus benefits of searching. Discussion of the impact of such a practice on the therapeutic relationship in psychotherapy practice warrants continued attention.

The current study appears to be the first to ask trainees what they would do and think in response to hypothetical client and supervisor contact via social networking sites. Interestingly, most would not see such contacts as an invasion of privacy by client or supervisor, although they would still feel uncomfortable about such contacts. Despite deep concerns being raised about privacy (Kaslow et al., 2011; Lehavot, 2009a; Lehavot, 2009b; Lehavot et al., 2010;), perhaps, as Melber (2008) suggested, people's notion of privacy is evolving with the Internet. Indeed, as trainees and clients are increasingly "digital natives," such notions may change even more. Respondents in the current study may consider social network sites as a risk worth managing and contact via these sites from clients and supervisors as inevitable (or at least unsurprising). Interesting questions arise about the applicability of the Ethics Code principles on privacy when the very notion of what is private for supervisors, trainees, and clients may be very different. In the current study, one respondent commented,

It would be difficult to tell a supervisor I did not want to add them (to a social networking site) because I do not want them to think I have something to hide, but at the same time I want to keep my private life separate from my professional life. I'm not sure who I would talk to about it.

Another reported,

I have found that it is not unusual for supervisors/supervisees to be "friends" on Facebook. Most people I know, depending on the level of comfort, will allow limited access to supervisors or other individuals that are considered "authority" (faculty). It just depends on the level of friendliness between supervisor and trainee.

The power dimension in supervision is significant, just as it is in psychotherapy. If a supervisor asks a trainee to be a Facebook friend or asks to "Google" the trainee while sitting in a supervision session, the trainee may be in a difficult position of feeling coerced to consent.

Kaslow et al. (2011) wrote about the difficulty that arises when trainees may expect a "zone of privacy," when supervisors and trainers see online information as "fair game." The current study suggests, at least regarding social networking, such a zone may not be generally expected by students. Intriguingly, if contacted via a social networking site by a supervisor, 22.9% would "think nothing of it at all," and 12.1% actually report seeing it as "a sign of the strength of the relationship." When it comes to seeking information actively, almost half of the current respondents have "Googled" their supervisors, whereas only 2.7% report that their supervisors have disclosed "Googling" them. It seems likely that most of these students have not told their supervisors of their activities. Research (Ladany & Hill, 1996) has found supervisees choose not to disclose a range of feelings and experiences to their supervisors, mostly by simply avoiding the topics. Similarly, supervisors may have "Googled" supervisees without disclosing. One participant in the current study commented, "A supervisor and professor have commented on my profile picture . . . so I know they searched for my name; however, they did not tell me that they searched for me." Another participant wrote, "I was searched for by the supervisor of a practicum site I applied to. It made me uncomfortable and I was faced with whether or not to accept, and if I accepted, what information I should change." Indeed, it seems the entire supervisory relationship may be impacted by the elephant in the room of who has "Googled" whom, with various permutations of the triadic relationship (supervisor, trainee, and client) in the mix.

Limitations

The above results and discussion should be considered in light of the study's limitations. Ascertaining response rates or characteristics of those who chose to respond to the study invitation or to whom the invitation was ultimately sent is impossible. This limitation is significant in online research in general, as it is impossible to generalize results to a population given so many unknowns about the sample. Several results are consistent with previous findings, which may suggest a generalizable phenomenon. Other results may perhaps be best interpreted with caution, especially those results asking novel questions (e.g., supervision). The study's two-wave approach may have had implications for the generalizability, as the majority of participants were from PsyD

programs. A major oversight of the current study was an inadvertent omission of age in the demographic section of the survey. Thus, the possibility exists of a skewed age range. A question about the year in training yielded results not easily categorized (with some including master's training, previous graduate training, etc.), leaving questions about the impact of training unanswered. The survey itself was created for this study and its psychometric properties are unknown. Finally, this study failed to assess why participants "Googled" their clients and whether clients consented to Internet searches. This dimension of consent seems crucial, as the act of "Googling" itself may not necessarily be antitherapeutic or an invasion of privacy.

Implications for Training and Future Research

As Internet issues become ubiquitous, it is likely that the issues raised in this study—and more—will become regular part of personal life and professional practice. The practice of, as one psychotherapist put it, "social network abstinence" may become less desirable or feasible for psychologists (Scarton, 2010). Thus, training programs and supervisors have the responsibility to discuss emerging Internet issues with students, a practice that seems lacking from the current study's results. The focus of these discussions should be on both the process and the content of training and psychotherapy and consider Internet discussions from the very beginning, prior to engagement in any clinical work. For example, we recommend that training programs and sites make their utilization of online information clear to applicants and trainees, perhaps like the model recently developed by Wester, Danforth, and Ollie (2013). Such clear delineation of policy not only communicates professional expectations to trainees, but it also models clear disclosure of such policies to clients as trainees meet with them. We also recommend that supervisors broach Internet issues at the start of the supervisory relationship, making it a routine part of initiation into the relationship and part of the supervisory contract. Again, much as with issues of multicultural competence, supervisors should utilize their ascribed power to model transparency, openness, and to communicate the importance of the issue.

As for clinical work, Internet issues may become increasingly part of the content of clients' presenting distress: bullying on Facebook, blog attacks, having misinformation widely available and ever present may bring new experiences of distress. One of the authors (PA) worked with a client who had a video of him posted online without his permission and was unable to have it removed. Knowing this was "out there" for all to see was deeply distressing and reminiscent of previous experiences of indignation, powerlessness, and violation. A quarter of the participants in the current study reported discussing social networking site issues with clients, with the clients' initiating these discussions most of the time. Being more open to discussing these issues, asking routinely about Internet presence and problems with clients, and initiating discussions may help clients feel their psychotherapists have an Internet cultural competence regardless of their perception of digital savvy. We suggest that programs address trainees' lack of comfort in making ethical decisions in this realm in the form of recurring ethical discussions and role plays. Again, we encourage supervisors to ask trainees routinely about Internet issues that may emerge in the course of psychotherapy. Programs and sites could add Internet issues to intake forms as well, communicating to clients

their importance. Dr. Kolmes' Internet consent form may also be a good guide for informed consent issues.

Future work should build on the current study's investigation of how students would react and think about social network contact to how they actually do and have reacted. Researchers could investigate whether ways of handling the issue are related to age, level of training, or other factors, and whether they change over time (especially with changing online privacy policies). Certainly the questions of supervisor behavior and attitudes need to be explored more thoroughly. At this point, it is unclear how often supervisors engage in online searches or contact, for what purposes, and whether trainees are informed before or after the fact. Also unclear is what supervisors are telling their trainees about such issues and how they are advising them to proceed in their professional and personal lives. Also, a next natural step would be assessing clients' perceptions of privacy, the Internet, and online social networking in psychotherapy.

Finally, it bears mentioning that as society is in the midst of significant and potentially revolutionary changes to the way people see and understand social interaction, definitions of personal and private, and ways of connecting with others, it is natural that the art and science of psychotherapy struggle with how to understand these changes. It will be important for training programs and sites to revisit regularly the potential benefits and potential downfalls of such rapidly evolving ways of interacting for novice and experienced psychotherapists alike.

References

- Alloway, T. P., & Alloway, R. G. (2012). The impact of engagement with social networking sites (SNSs) on cognitive skills. *Computers in Human Behavior, 28*, 1748–1754. doi:10.1016/j.chb.2012.04.015
- American Psychological Association. (2002). *Ethical principles of psychologists and code of conduct*. Retrieved from <http://www.apa.org/ethics/code/index.aspx>
- Ancis, J., & Ladany, N. (2001). A multicultural framework for supervision. In L. J. Bradley & N. Ladany (Eds.), *Counselor supervision: Principles, process, & practice* (pp. 63–90). Philadelphia, PA: Brunner-Routledge.
- APA Practice Organization. (2009, June). *Plugging in to social networks. Good Practice*. Retrieved from www.apapracticecentral.org
- Baker, L. R., & Oswald, D. L. (2012). Shyness and online social networking services. *Journal of Social and Personal Relationships, 27*, 873–889. doi:10.1177/0265407510375261
- Barnett, J. E., & Russo, A. (2009). Psychotherapy, online social networking, and ethics. *Psychotherapy Bulletin, 44*, 15–20.
- Burkard, A. W., Johnson, A. J., Madson, M. B., Pruitt, N. T., Contereras-Tadych, D. A., Kozlowski, J. M., & Hess, S. A. (2006). Supervisor cultural responsiveness and unresponsiveness in cross-cultural supervision. *Journal of Counseling Psychology, 53*, 288–301. doi:10.1037/0022-0167.53.3.288
- Clinton, B. K., Silverman, B. C., & Brendel, D. H. (2010). Patient-targeted Googling: The ethics of searching online for patient information. *Harvard Review of Psychiatry, 18*, 103–112. doi:10.3109/10673221003683861
- DiLillo, D., & Gale, E. B. (2011). To Google or not to Google: Graduate students' use of the Internet to access personal information about clients. *Training and Education in Professional Psychology, 5*, 160–166. doi:10.1037/a0024441
- Fox, S. (2011). *The social life of health information*. Retrieved from Pew Internet Web site: <http://www.pewinternet.org/Reports/2011/Social-Life-of-Health-Info.aspx>

- Gabbard, G. O., Kassaw, K. A., & Perez-Garcia, G. (2011). Professional boundaries in the era of the Internet. *Academic Psychiatry, 35*, 168–174. doi:10.1176/appi.ap.35.3.168
- Gibbs, J. L., Ellison, N. B., & Lai, C. H. (2011). First comes love then comes Google: An investigation of uncertainty reduction strategies and self-disclosure in online dating. *Communication Research, 38*, 70–100. doi:10.1177/0093650210377091
- Gorindo, T., & Groves, J. E. (2008). Web searching for information about physicians. *Journal of the American Medical Association, 300*, 213–215. doi:10.1001/jama.2008.44
- Gottlieb, L. (2012, November 23). *What brand is your therapist?* *The New York Times*. Retrieved from <http://www.nytimes.com>
- Hogeboom, D. L., McDermott, R. J., Perrin, K. M., Osman, H., & Bell-Ellison, B. A. (2010). Internet use and social networking among middle aged and older adults. *Educational Gerontology, 36*, 93–111. doi:10.1080/03601270903058507
- Kasket, E. (2012). Being-towards-death in the digital age. *Existential Analysis, 23*, 249–261.
- Kaslow, F. W., Patterson, T., & Gottlieb, M. (2011). Ethical dilemmas in psychologists accessing Internet data: Is it justified? *Professional Psychology: Research and Practice, 42*, 105–112. doi:10.1037/a0022002
- Kolmes, K. (2012). Social media and the future of professional psychology. *Professional Psychology: Research and Practice, 43*, 606–612. doi:10.1037/a0028678
- Kolmes, K. (2013). *Social Media Policy*. Retrieved from <http://drkkolmes.com/for-clinicians/social-media-policy/>
- Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2002). Internet paradox revisited. *Journal of Social Issues, 58*, 49–74. doi:10.1111/1540-4560.00248
- Ladany, N., & Hill, C. E. (1996). Nature, extent, and importance of what therapy trainees do not disclose to their supervisors. *Journal of Counseling Psychology, 43*, 10–24. doi:10.1037/0022-0167.43.1.10
- Lehavot, K. (2009). Is being exposed all bad? Implications of Internet self-disclosures for psychotherapists, clients, and graduate students. In O. Zur, M. Williams, K. Lehavot, & S. Knapp. *Psychotherapist self-disclosure and transparency in the Internet age. Professional Psychology: Research and Practice, 40*, 22–30.
- Lehavot, K. (2009). My Space or yours? The ethical dilemma of graduate students' personal lives on the Internet. *Ethics & Behavior, 19*, 129–141. doi:10.1080/10508420902772728
- Lehavot, K., Barnett, J., & Powers, D. (2010). Psychotherapy, professional relationships, and ethical considerations in the MySpace generation. *Professional Psychology: Research and Practice, 41*, 160–166. doi:10.1037/a0018709
- Melber. (2008 January). *About Facebook*. *The Nation*. Retrieved from <http://www.thenation.com/article/about-facebook#axzz2cqr9dn6>
- Merdian, H. (2012). E-professionalism in psychology. *The Psychologist, 25*, 94–95.
- Morgan, C., & Cotton, S. R. (2003). The relationship between internet activities and depressive symptoms in a sample of college freshman. *CyberPsychology & Behavior, 6*, 133–142. doi:10.1089/109493103321640329
- Myers, S. B., Endres, M. A., Ruddy, M. E., & Zalikovsky, N. (2012). Psychology graduate training in the era of social networking. *Training and Education in Professional Psychology, 6*, 28–36. doi:10.1037/a0026388
- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon, 9*, 1–6.
- Rosen, J. (2010, July 19). *The Web means the end of forgetting*. *The New York Times*. Retrieved from <http://www.nytimes.com>
- Scarton, D. (2010, March 30). *Google and Facebook raise new issues for therapists and clients*. *The Washington Post*. Retrieved from <http://www.washingtonpost.com>
- Schirmacher, W. (2007). Net culture. *Psychoanalytic Review, 94*, 141–149. doi:10.1521/prev.2007.94.1.141
- Selfhout, M. H. W., Branje, S. J. T., Delsing, M., Ter Bogt, T. F. M., & Meeus, W. H. J. (2009). Different types of internet use, depression, and social anxiety: The role of perceived friendship quality. *Journal of Adolescence, 32*, 819–833. doi:10.1016/j.adolescence.2008.10.011
- Sengupta, A., & Chaudhuri, A. (2011). Are social networking sites a source of online harassment for teens? Evidence from survey data. *Children and Youth Services Review, 33*, 284–290. doi:10.1016/j.childyouth.2010.09.011
- Siegel, L. (2012, October 15). *The kids aren't alright*. *Newsweek*. Retrieved from www.newsweek.com
- Society for Human Resource Management. (2011). *Social networking websites and online search engines for screening job candidates*. [Data file]. Retrieved from www.shrm.org/Research/SurveyFindings/Articles/Documents/PART%20_Social%20Media%20Flier_FINAL.pdf
- Taylor, L., McMinn, M. R., Bufford, R. K., & Chang, K. B. T. (2010). Psychologists' attitudes and ethical concerns regarding the use of social networking websites. *Professional Psychology: Research and Practice, 41*, 153–159. doi:10.1037/a0017996
- Tunick, R., Mednick, L., & Conroy, C. (2011). A snapshot of child psychologists' social media activity: Professional and ethical practice implications and recommendations. *Professional Psychology: Research and Practice, 42*, 440–447. doi:10.1037/a0025040
- Turkle, S. (2010). *Alone together. Why we expect more from technology and less from each other*. New York, NY: Basic Books.
- Wayne, T. (2010, December 27). *Age gap narrows on social networks*. *New York Times*. Retrieved from www.nytimes.com
- Webb, R. E., & Widseth, J. C. (2012). The erosion of aloneness. *Journal of College Student Psychotherapy, 26*, 165–167. doi:10.1080/87568225.2012.686418
- Wester, S. R., Danforth, L., & Ollie, C. (2013). Social networking sites and the evaluation of applicants and students in applied training programs in psychology. *Training and Education in Professional Psychology, 7*, 145–154. doi:10.1037/a0032376
- Yip, T. C. Y. (2010). Click, observe, and listen to the calls, links, and interactions of the Gen-i in the digital forest: Taking the narrative analysis of the film *Avatar* as a scaffolding of reflection. *Journal of Youth Studies, 13*, 43–53.
- Zur, O., Williams, M. H., Lehavot, K., & Knapp, S. (2009). Psychotherapist self-disclosure and transparency in the Internet age. *Professional Psychology: Research and Practice, 40*, 22–30. doi:10.1037/a0014745

Received March 3, 2013

Revision received November 25, 2013

Accepted December 8, 2013 ■

Social Networking and Professional Ethics: Client Searches, Informed Consent, and Disclosure

Sara E. Harris
Marquette University

Sharon E. Robinson Kurpius
Arizona State University

As mental health professionals are increasingly using technology in their clinical work, it is important that research examines the ethical implications of online behaviors. This study examined the online behaviors of 315 counseling and psychology graduate students. Hierarchical multiple regression was used to examine online client searches, informed consent, and disclosures. Increased disclosure of client information was related to lower scores on ethical decision-making and to program type (counseling, clinical, or school). Ethical decision-making moderated online disclosure for participants in school psychology programs. Of those with supervised clinical experience, a third had used the Internet to find information about a client. Progress in the participants' academic program, as measured by academic credits, and years of social networking experience were positively related to increased online client searches. The majority who conducted an online search did not obtain client informed consent before conducting the search. Reported therapeutic concern about client welfare and gathering information for intervention were significant predictors of obtaining informed consent.

Keywords: social networking, disclosure, informed consent, online client search

Social networking sites, such as Facebook, Twitter, Google+, Myspace, Classmates.com, LinkedIn, and LiveJournal, provide a new medium for people to meet, reconnect, find others with similar interests, network with professionals, share information, and even find love. Social networking is increasingly interwoven into today's social and business world. When one peruses social networking sites, universities, Fortune 500 companies, advocacy groups, and even churches can be found. Facebook has more than 500 million active users, half of whom access their account daily (Statistics, Facebook.com, 2010). To track the growth of social networking use in the United States, the Pew Research Center has collected yearly data since 2005. The most recent data on more than 2000 individuals over the age of 18 revealed that the percent of adults who participated in

social networking rose from 61% in 2010 to 65% in 2011, with 43% accessing their account daily (Madden & Zickuhr, 2011). The majority of users are females between the ages of 18 and 29. Although membership for the 18- to 29-year-olds has remained relatively steady, between 83% and 86%, it is increasing for older individuals (Madden & Zickuhr, 2011). For example, online membership rose from 61% in 2010 to 70% in 2011 for 50 to 64-year-olds and from 26% to 33% for those older than 65. That online membership is becoming a cultural norm rather than an exception underscores the importance of research related to this new medium.

Mental health professionals are no exception to the trend of social networking use. Studying student members of Divisions 29 (Psychotherapy) and 42 (Psychologists in Independent Practice) of the American Psychological Association (APA), Lehavot, Barnett, and Powers (2010) found that 81% had a social networking site. Focusing on counseling, clinical, and school psychology graduate students, DiLillo and Gale (2011) reported that 71.8% of the 854 students had a social networking site. Another study of 695 mental health students and professionals found that 77% reported maintaining a social networking page (Taylor, McMinn, Bufford, & Chang, 2010). Of the 528 who were under the age of 30, 85% participated in social networking; however, no one over the age of 54 did. A survey of APA Council of Representatives and division presidents conducted by McMinn, Hathaway, Woods, and Snow (2009) also revealed that no one over the age of 54 maintained a social networking site. It is evident that younger mental health professionals are the active members of social networking sites. Additionally, social networking is relatively new and may not be an area in which students and new professionals can turn to their supervisors or university faculty for advice.

SARA E. HARRIS is currently pursuing a PhD in Counseling Psychology at Marquette University and also spends her time as a researcher at the Penfield Children's Center Behavior Clinic. Her research and professional interests include children's reactions to traumatic stress, development and validation of pediatric psychological tests, and professional ethics.

SHARON E. ROBINSON KURPIUS is a professor and Director of Clinical Training for the Counseling and Counseling Psychology programs at Arizona State University. She holds fellow status in the American Educational Research Association and three divisions of the American Psychological Association (APA)—Counseling Psychology, Consulting Psychology, and Health Psychology. Her research interests include women and health, intimate relationships, ethics and values, academic persistence, and aging.

CORRESPONDENCE CONCERNING THIS ARTICLE should be addressed to Sara E. Harris, Marquette University, Department of Counselor Education and Counseling Psychology, College of Education, Schroeder Complex, P. O. Box 1881, Milwaukee WI 53201-1881. E-mail: sara.harris@mu.edu

Although the APA Ethical Principles (2010) does not specifically address standards for social networking sites, it does assert that the “application of an Ethical Standard may vary depending on the context” (p. 1) and that “The fact that a given conduct is not specifically addressed by an Ethical Standard does not mean that it is necessarily either ethical or unethical” (p. 1). Taylor et al. (2010) found a slight negative correlation between age and favoring APA involvement in providing set standards, with younger participants more likely to favor APA involvement.

Any hesitancy, however, related to developing ethical guidelines for social networking may be coming to an end. APA ethics director Stephen Behnke stated “with a very high degree of confidence that when APA does draft the next code, the drafters will be very mindful of many issues being raised by social media” (Martin, 2010, p. 32). The widespread use of social networking is also cited as a catalyst for revision of the American Counseling Association (ACA, 2005) Code of Ethics (Rollins, 2011). The concern of the APA and ACA highlights the need to study professional behaviors related to social networking, particularly behaviors that might be unethical.

Social networking creates many complex ethical dilemmas, particularly those related to privacy, confidentiality, and informed consent, which often do not have clear-cut answers. It is critical that psychologists and counselors have an understanding of ethical concepts and subsequent boundaries and transfer this understanding to their professional online behaviors.

Privacy refers to the clients’ right to decide how much of their behaviors, thoughts, and feelings they share with others (Koocher & Keith-Spiegel, 2008). APA (2010) Principle E states, psychologists should “respect the dignity and worth of all people, and the rights of individuals to privacy, confidentiality, and self-determination.” Mental health professionals respect the client’s choice to disclose information and do not engage in activities that bias their work. For example, learning about a facet of the client’s identity through a social networking site without processing this new information with the client could introduce bias into the therapeutic relationship, compromise the client’s fundamental right to privacy, and place the counselor in a position of knowing something the client has not directly shared.

Some have argued that certain instances may warrant examination of a client’s social networking page (DiLillo & Gale, 2011; Martin, 2010). For example, viewing a social networking page of a suicidal client who has missed recent sessions may provide some insight into the client’s whereabouts and state of mind. Information obtained, however, could be inaccurate or be out of context. For example, if a client was being treated for severe alcohol dependence, pictures of him/her “partying” could cause the therapist to be alarmed. The clinician’s interpretation could change drastically if it was revealed that the pictures were taken years ago. Behnke (2008) warned that, “There is a “slippery slope” to seeking and relying on such information that risks turning psychologists into private investigators” (p. 75).

Despite ethical guidelines, confidentiality creates some of the most challenging and confusing ethical dilemmas (Koocher & Keith-Spiegel, 2008). Social networking adds a unique layer to the already complex construct; the public or private nature of information posted online is ambiguous. The APA (2010) Ethical Principles state “Psychologists have a primary obligation and take reasonable precautions to protect confidential information ob-

tained through or stored in any medium” (p. 7). It could be argued that social networking is a new medium through which mental health professionals can obtain information and that the standards for confidentiality still apply.

The importance of clients being informed consumers of therapeutic services is captured in the ethical standards involving informed consent. The APA (2010) emphasizes that informed consent should be readdressed as new circumstances warrant. Somberg, Stone, and Claiborn (1993) examined a variety of contexts in which informed consent should be obtained (e.g., limits of confidentiality, potential risks of therapy) and reasons for not obtaining this consent. Some of the most common reasons included the belief that the issue was not relevant or necessary and that the risk of not obtaining consent was perceived as being low or none. This highlights the role of the clinician’s own personal attribution of importance plays in the informed consent process. The reason for online searches (e.g., verification of information, treatment planning), therefore, may predict whether the clinician obtains informed consent.

Despite ethical risks, between 27% and 97.8% of student psychotherapists report seeking client information through the Internet (DiLillo & Gale, 2011; Lehavot et al., 2010). Factors that predict these searches are unclear. A positive correlation between trainee year in program and acceptability of searching for client information using a search engine was noted in one study (DiLillo & Gale, 2011). Explanations of this finding were not provided by the researchers. Could the finding be the result of the passage of time or the result of a third variable such as increased exposure to clients? Another factor that likely contributes to online client searches is years of social networking experience. Individuals who have been members of social networking sites for many years may be more familiar with how to navigate these websites and feel more comfortable conducting a search through this medium.

Few studies have examined online disclosures, particularly disclosures related to clients. Frye and Dornish (2010) found that experience with social networking communication tools was related to increased comfort in self-disclosing, regardless of the perceived level of privacy, and speculated that the link between privacy concerns and online disclosure may be attributed to individuals’ perceived level of knowledge surrounding privacy settings and the belief that others would be unlikely to intercept the communication. In contrast, Zur, Williams, Lehavot, and Knapp (2009) argued that young professionals have grown up with the Internet and personal disclosures on this medium have become ingrained as a part of life. They warned that students might need support in examining their disclosures from a clinical perspective. Instruction on ethical standards may vary by program type (school, counseling, clinical) and by individual institution. For example, some programs require a formal ethics class while others have ethics embedded into their coursework and practicum classes. Interest and expertise in ethics, as reflected by major areas of research interest also varies by program, with 18% of counseling psychology programs and 6% of clinical psychology programs citing professional ethics as a focal area (Norcross, Sayette, Mayne, Karg, & Turkson, 1998). Pope and Vetter (1992) studied a random sample of current APA members and found that confidentiality was the most frequently encountered ethical dilemma (18%).

Similarly, Dailor and Jacobs (2011) conducted a survey of practitioner members of the National Association of School Psychologists and found that 33% had witnessed an ethical transgression regarding confidentiality. This suggests that issues surrounding confidentiality may pose additional complications for school psychologists compared with those in counseling or clinical psychology programs. This may be attributed to the complexities of disclosure (e.g., balancing student confidentiality with parental rights) within a school setting. Issues surrounding confidentiality and disclosure are also cited as the most common and challenging ethical concerns among counselors in a school setting (Bodenhorn, 2006). Although these behaviors are observed in person, they may also transfer to the online environment. It is important to note that individuals who share information about their clients (overtly or covertly) online may also be at greater risk of violating other professional boundaries. However, individuals with better ethical decision-making may be less likely to engage in unethical behaviors despite program affiliation/training.

Although sharing personally identifying information about a client without the client's consent is a clear violation of APA (2010) Ethical Principles, other disclosures may not be as clear-cut. For example, would it be acceptable to casually express displeasure online by stating that an unnamed client missed an appointment? Issues surrounding disclosures have already caused lawsuits in the field of medicine. A recent court case, *Doe v. Green*, involved a paramedic who disclosed details on a social networking site that he thought did not overtly identify (e.g., name) the victim of a rape (Clark, 2010). Although Green's intentions may have been to warn other potential victims, he provided information on his Web site that the survivor thought was identifiable and that resulted in a lawsuit. Such risk exists for all professionals who have an ethical and legal obligation surrounding client confidentiality. It is important to increase awareness of the possible damage that can be caused by a metaphorical slip of the finger. Even with adequate consent, Koocher and Keith-Spiegel (2008) recommended that professional caution be used before sharing any information through a news outlet and identified "inadequate anticipation" of consequences as one of the "risky conditions" that can lead to ethical dilemmas (p. 16). Thus, it is important that potential ethical dilemmas related to social networking sites are addressed in graduate training and current professional behaviors and beliefs surrounding social networking participation are explored.

The current study examined the online practices of counseling and psychology graduate students and generated hierarchical regression models for online client searches, best practices in informed consent, and disclosure. Two specific hypotheses were addressed: (1) Lower scores on ethical decision-making, greater experience with social networking, more perceived knowledge of privacy settings, enrollment in a school psychology or school counseling program, and the interaction of ethical decision making and program type will be related to more disclosure of client information on social networking; and (2) Credits, direct client hours, and years of social networking experience will be positively related to online searches of client information. Additionally, one exploratory analysis was con-

ducted to examine whether reason for online search would predict obtaining informed consent.

Method

Participants and Procedures

After Institutional Review Board approval was obtained, graduate students in counseling and in psychology programs were recruited by sending emails to liaisons of Council of Counseling and Related Educational Programs (CACREP) programs and to Directors of Clinical Training (DCT) for psychology programs. Interested students were directed to the Survey Gizmo Web site where they gave consent to participate before completing the survey. Approximately 77.5% of those who opened the survey completed it. As incentive for completing the questionnaire, participants were offered the opportunity to win one of four \$20 Visa gift cards. G*Analyses indicated that a sample size of at least 85 was needed to achieve statistical significance with an alpha of .05, a power level of .80, and a .15 effect size.

The 315 graduate students (264 females; 49 males; 2 not identified) who completed the survey resided in 35 states and had an average age of 28.4 years ($SD = 6.21$). Most identified as Caucasian/Euro American ($n = 248$; 78.5%), with 20 (6.3%) identifying as Asian/Pacific Islander, 17 (5.4%) as Black/African American, 18 (5.7%) as Hispanic/Latino/a, 2 (.6%) as Native American/Alaska Native, and 11 (3.4%) as Other/Multi-Racial. Over half (57.4%) were enrolled in a doctoral program. Programs surveyed included counseling ($n = 95$; 30.2%), counseling psychology ($n = 76$; 24.1%), clinical psychology masters programs ($n = 11$; 3.5%), school counseling ($n = 28$; 8.9%), school psychology ($n = 59$; 18.7%), and clinical psychology doctoral programs ($n = 46$; 14.6%).

Only 19 (6%) did not belong to a social networking site. Of the 297 who did, 292 (98.6%) had social networking pages on Facebook, 96 (32.8%) on LinkedIn, 91 (30.6%) on YouTube, 87 (29.3%) on Google+, 76 (25.5%) on Twitter, 25 (8.4%) on Myspace, 20 (6.7%) on Yelp, and 32 (10.8%) on other social networking sites. On average, students had 2.43 ($SD = 1.5$) social network memberships and had maintained their networking page for 5.8 years ($SD = 2.0$). More than two thirds (79.7%) accessed at least one of their accounts daily, although the vast majority (92.9%) had accessed at least one of their accounts by the end of the week.

Measures

Multiple outcome variables were assessed. These included online client searches, informed consent, online disclosures, ethical decision making, and privacy knowledge.

Online client searches. Frequency of online client searches was measured by two items: "I have conducted a Google Search to find out or verify information about my client" and "I have conducted a social networking search to find out or verify information about my client." Each item was responded to on a 6-point Likert-type scale, with anchors ranging from *Never* (1) to *Very Frequently* (6). Responses were summed to form a total score that could range from 2 to 12, with higher scores indicating greater frequency of client online searches. For the study

sample, the coefficient alpha was .73 and scale mean was 2.86 ($SD = 1.57$).

Informed consent. Five items, derived from the APA (2010) and ACA (2005) ethical standards to assess best practices in informed consent and identified by Somberg et al. (1993) as important elements of informed consent (i.e., limits of confidentiality, potential risks of therapy, length of treatment, possible procedures used, and alternatives to therapy), were used to measure Informed Consent. Each item was rated on a scale from 1 (*Never*) to 6 (*Very Frequently*). Sample items include the following: "I obtained informed consent from my clients before conducting an online search (e.g., Social networking, Google)" and "I discussed with my client the benefits and drawbacks of conducting an online search about them." Responses were summed to form a total score, with higher scores indicating more use of informed consent practices. Total scores could range from 5 to 30. For the current sample, the scale mean was 7.25 ($SD = 5.33$), and the coefficient alpha was .93.

Online disclosures. The extent to which participants disclosed client information online was assessed by eight items rated on a 6-point Likert-type scale (1 = *Never* to 6 = *Very Frequently*). Sample items include the following: "I have expressed positive thoughts/feelings (e.g., happiness, optimism, hopefulness, etc.) online about a client but did not provide information that I believe could readily identify the client"; "I have posted an update online that indirectly referenced negative thoughts/feelings (e.g., disappointment, frustration, sadness, etc.) I was having about a client"; and "I would warn my online friends about a client who is dangerous." Total scores, which could range from 8 to 48, were calculated by summing responses across the items.

Higher scores reflect more disclosure. For the current sample, the scale mean was 9.81 ($SD = 3.68$), and the coefficient alpha was .84.

Ethical decision-making. The ethical decision-making subscale of Kendall et al. (2011) Boundaries in Practice measure, which includes 10 scenarios to assess ethical decision-making, was used. A sample scenario was "You have been under a lot of personal stress and the client asks you what is wrong. You find yourself telling the client about your problems." For each scenario the participant was asked, "How ethical is this decision?" Decisions were rated on a 4-point Likert-type scale, with anchors ranging from *Never Ethical* (4) to *Always Ethical* (1). In addition, another item, "You begin therapy with a client and you find that you are attracted to each other" was presented for the sexual attraction scenario. This resulted in an 11-item scale with responses summed across items. Scores could range from 11 to 44. Higher total scores reflect belief that scenarios were not ethical and indicate good-decision making. Kendall et al. (2011) established content and face validity through use of expert panel ratings. They reported a coefficient alpha of .86. For the current study, the coefficient alpha was .75, and the scale mean was 38.87 ($SD = 2.99$).

Privacy knowledge. Four items assessed perceived knowledge of privacy settings. These items included: "I feel confident about my knowledge of privacy settings on my social networking sites"; "I am aware of what information is viewable by the public (i.e., nonfriends) on my social networking site"; "There may be information on my social networking page that can be viewed by the public that I did not intend to be publicly viewable"; and "I do

not know what information the public can view on my social networking site." Items were responded to on a 6-point Likert-type scale, with anchors ranging from *Strongly Disagree* (1) to *Strongly Agree* (6). After reverse coding the last two items, responses were summed to form a total score, which could range from 5 to 24. Higher total scores indicated more reported knowledge of privacy settings. For the current study, the Coefficient alpha was .81, and the scale mean was 17.90 ($SD = 3.78$).

Results

Descriptive Analyses

Before analyzing the research hypotheses, descriptive summaries were calculated for online behaviors. Of the 226 participants who endorsed having clinical experience, 75 (33.2%) had used the Internet to find out information about a client, with 44 (19.5%) using social networking Web sites (e.g., Facebook) to obtain information and 66 (29.2%) using a search engines (e.g., Google) to obtain information. Of those who conducted an online search, 16 (21.3%) did so occasionally to very frequently. Of those who conducted a social network search, 11 (25%) did so occasionally to very frequently. It is important to note that participants with clinical experience who conducted these searches on more than a periodic basis reflected less than 1% of the sample. Of the 75 participants who indicated that they had conducted an online client search, 74 provided information regarding their informed consent practices. The majority, 62 (83.8%), reported that they did not discuss how they would handle information that required a breach of confidentiality with the client, 62 (83.8%) reported never obtaining informed consent prior to online client search, and 64 (86.5%) indicated that they did not document the online search in the client's file.

Participants' responses to the disclosure items were analyzed for the 226 graduate students who had clinical experience. Two participants did not respond to every question. Twenty (8.9%) of the participants endorsed expressing positive thoughts/feelings online about something a client said in session in comparison to 12 (5.3%) who endorsed expressing negative thoughts/feelings online about something a client said in session. Forty-one (18.2%) endorsed posting an update online that indirectly referenced positive thoughts/feelings (e.g., happiness, optimism, hopefulness, etc.) they were having about a client.

Hypothesis Testing

Missing data exceeded 5% ($n = 14$) for the online client search prediction model (H2); thus multiple imputation was used to account for missing data. All variables in the analysis and auxiliary variables that correlated to variables that were missing were included in the imputation model. Missing data were less than 5% for the disclosure (H1) prediction model and for the informed consent exploratory analysis. The missing value analyses did not reveal patterns for missingness; thus, these cases were not included. Because the dependent measures were positively skewed and displayed high levels of kurtosis, the plots of the observed and predicted residuals were examined for each analysis. To reduce heteroscedasticity and non-normality in residual distributions, the dependent variables were transformed using a log transformation.

This improved the distribution of the residuals and linearization of the relationships. Because online use differs across age and gender, the first and second hypotheses controlled for these variables by adding them into the first level of the analyses. Program type (e.g., school psychology, counseling psychology) was controlled for in the second hypothesis and the exploratory analysis to rule out possible confounds. Masters students in clinical psychology programs were collapsed into one group with doctoral clinical psychology programs because separating them had no predictive value and provided little information because of low sample size ($n = 11$).

Results from the analysis for disclosure of client information online (H1) are summarized in Table 1. The demographics level (age, sex, program) was significantly related to online disclosure, $F(6, 212) = 3.12, p = .006$. The individual differences level (ethical decision making, years of social networking experience, and knowledge of privacy settings) accounted for significant additional variance, $F(9, 209) = 4.84, p < .001$. The full model that included the interaction of program and ethical decision-making was explored in the third level to test for a moderator effect, which was significant, $F(13, 205) = 4.53, p < .001$. Disclosure of client information was related to lower scores on ethical decision-making, $t = -2.10, p = .037$. Enrollment in a school psychology program as opposed to a

clinical or counseling program was positively related to disclosure of client information, $t = 2.87, p = .004$. However, status in a school psychology program was moderated by ethical decision-making, $t = -2.67, p = .008$. In other words, although participants in school psychology group had highest scores overall on disclosure items, they had lower levels of disclosure when ethical decision-making scores were high in comparison with the clinical and counseling groups.

Results from the analysis for online search of client information (H2) are summarized in Table 2. Possible confounding from age, sex, and program type was controlled in the demographics level. The individual differences level (credits, years of social networking experience, and direct client hours) was a significant predictor of online client searches, $F(9, 216) = 2.52, p < .001$. Online client searches were positively related to years of social networking, $t = 2.64, p = .008$ and to credit hours, $t = 3.01, p = .003$. In other words, years of social networking experience and longer presence in a graduate program were related to increased searching for client information.

Exploratory Analysis

The results from the analysis for obtaining informed consent before an online search are summarized in Table 3. Possible confounding

Table 1
Hierarchical Multiple Regression for Disclosure of Client Information Online ($n = 219$)

Model	R^2	ΔR^2	B	SE_B	p	sr^2
1. Demographics	.082**					
Age			-.001	.001	.275	-.07
Sex			-.004	.021	.862	-.01
Program ₁			-.026	.021	.233	-.08
Program ₂			-.013	.030	.664	-.03
Program ₃			.041	.022	.063	.12
Program ₄			-.048*	.024	.047	-.14
2. Individual differences	.173***	.092***				
Ethics _c			-.010***	.002	<.001	-.29
Years SNW			.006	.004	.142	.10
Privacy knowledge			<.001	.002	.790	.02
3. Full model with interactions	.223***	.049*				
Age			-.001	.001	.364	.06
Sex			-.002	.020	.915	.01
Program ₁			.064	.116	.581	.03
Program ₂			.294	.235	.211	.08
Program ₃			.309**	.107	.004	.18
Program ₄			.029	.152	.847	.01
Ethics _c			-.006*	.003	.037	-.13
Years SNW			.006	.004	.160	.09
Privacy knowledge			<.001	.002	.770	.02
Program ₁ × Ethics _c			-.006	.008	.407	-.05
Program ₂ × Ethics _c			-.020	.015	.184	-.08
Program ₃ × Ethics _c			-.019**	.007	.008	-.17
Program ₄ × Ethics _c			-.006	.010	.577	-.03

Note. Dummy coding was used for Sex in which male is coded 1 and female is coded 0. The notation Program₁ refers to the dummy code for program type in which counseling psychology is coded "1" and all other groups are coded "0." The notation Program₂ refers to the dummy code for program type in which School Counseling is coded "1" and all other groups are coded "0." The notation Program₃ refers to the dummy code for program type in which School Psychology is coded "1" and all other groups are coded "0." The notation Program₄ refers to the dummy code for program type in which Clinical Psychology is coded "1" and all other groups are coded "0." The notation Ethics_c refers to ethical decision-making. The notation SNW refers to social networking. Independent measures are centered.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2
Hierarchical Multiple Regression for Online Search of Client Information (n = 226)

Model	R ²	ΔR ²	B	SE _B	p	sr ²
1. Demographics	.018					
Age			<.001	.002	.948	<.01
Sex			.049	.033	.135	.10
Program ₁			-.025	.034	.467	-.05
Program ₂			-.016	.048	.742	-.02
Program ₃			.025	.035	.472	.05
Program ₄			-.009	.038	.806	-.02
2. Full model with individual differences	.100***	.077***				
Age			.001	.002	.490	.05
Sex			.057	.032	.078	.12
Program ₁			-.065	.035	.062	-.12
Program ₂			-.023	.047	.628	-.03
Program ₃			-.015	.037	.679	-.03
Program ₄			-.030	.038	.424	-.05
Credits			-.002**	<.001	.003	.20
Direct client hours			<.001	<.001	.276	-.07
Years SNW			.014**	.005	.008	.17

Note. Dummy coding was used for Sex in which male is coded 1 and female is coded 0. The notation Program₁ refers to the dummy code for program type in which counseling psychology is coded "1" and all other groups are coded "0." The notation Program₂ refers to the dummy code for program type in which School Counseling is coded "1" and all other groups are coded "0." The notation Program₃ refers to the dummy code for program type in which School Psychology is coded "1" and all other groups are coded "0." The notation Program₄ refers to the dummy code for program type in which Clinical Psychology is coded "1" and all other groups are coded "0." The notation SNW refers to social networking.
* p < .05. ** p < .01. *** p < .001.

from program type was controlled in the demographics level. Because the hypothesis was nondirectional, the alpha was set at .025. The individual differences level (reason for search) approached significance for online client searches $F(8, 65) = 2.30, p = .031$. Curiosity

was the most common reason for conducting an online search about a client and was used as the reference group. Endorsements of therapeutic concern about client welfare, $t = 2.04, p = .045$, and gathering information for intervention, $t = 3.46, p = .001$, were

Table 3
Hierarchical Multiple Regression for Informed Consent (n = 74)

Model	R ²	ΔR ²	B	SE _B	p	sr ²
1. Demographics	.047					
Program ₁			-.115	.068	.094	-.20
Program ₂			-.081	.114	.479	-.08
Program ₃			-.025	.067	.706	.04
Program ₄			-.062	.075	.407	-.10
2. Full model with individual differences	.220*	.174**				
Program ₁			-.112	.065	.089	-.19
Program ₂			-.087	.107	.420	-.09
Program ₃			-.044	.063	.488	-.08
Program ₄			-.027	.071	.707	-.04
Reason ₁ Therapeutic concern			.141*	.069	.045	.22
Reason ₂ Information for intervention			.248**	.072	.001	.38
Reason ₃ Verify what client told me			.111	.058	.061	.21
Reason ₄ Other			.014	.093	.883	.02

Note. The notation Program₁ refers to the dummy code for program type in which counseling psychology is coded "1" and all other groups are coded "0." The notation Program₂ refers to the dummy code for program type in which School Counseling is coded "1" and all other groups are coded "0." The notation Program₃ refers to the dummy code for program type in which School Psychology is coded "1" and all other groups are coded "0." The notation Program₄ refers to the dummy code for program type in which Clinical Psychology is coded "1" and all other groups are coded "0." The notation Reason_x refers to the dummy code for reason for search (e.g., therapeutic concern for client welfare) is coded "1" and all other groups are coded "0."
* p < .05. ** p < .01.

related to obtaining informed consent. Verifying what the client said and reasons endorsed as "other" were not significant predictors of obtaining informed consent.

Discussion

The Internet has made information increasingly easier to obtain. In response to an inquiry, search engines such as Google can generate thousands of results within seconds. This ease may well account for the fact that a third of the study sample who had clinical experience sought client information online. This finding is consistent with Lehavot et al.'s (2010) findings that approximately a fourth of student psychotherapists seek out client information online.

The current study explored possible correlates to online searches of client information, including number of credit hours, direct client hours, number of clients seen, and years of social networking experience. Credits and years of social networking were significantly related to online client searches. DiLillo and Gale (2011) reported a positive partial correlation between year in program and endorsement of obtaining information using a search engine and social networking website. The current study had a similar finding. Credit hours, a measure of progress in ones' program, was positively related to online client searches. A possible reason for this finding could be that the more advanced individuals are in their graduate program the greater likelihood that they will have engaged in online client searches. Interestingly, although credit hours was correlated to online searches, direct client hours was not. This suggests that clinical experience does not appear to have a significant relationship to online searches of client information. However, the sample consisted of graduate students and the range of variability in direct client hours was likely limited compared to those in clinical practice. Of those students with supervised clinical experience, most had completed or were currently enrolled in only one clinical experience (e.g., practicum), which limits the timeframe to only one or two semesters.

Years of social networking experience was also positively related to online client searches. Perhaps familiarity or a comfort with technological mediums is related to a greater likelihood of utilizing these mediums in clinical practice. Although online client searches are not inherently unethical, it is important that counseling and psychology graduate students evaluate how any search for client information affects their client's right to privacy and ensure client informed consent.

Of the participants who conducted an online client search, more than 80% indicated that they *never* obtained client consent, did not document the search in the client's file, did not consider the possibility of having to breach confidentiality, and never discussed the benefits and drawbacks of the search with their client. Both the APA (2010) and the ACA (2005) conceptualize informed consent as a fluid rather than static element that should be readdressed as new circumstances warrant. The finding related to obtaining informed consent and documenting this consent is alarming in that it suggests potential ethical violations are occurring.

When reasons for online searches of clients were examined, curiosity was the most endorsed reason. Conducting an online client search to satisfy personal curiosity could be considered unethical because it violates clients' fundamental right to privacy. Not surprisingly, conducting an online search of client information

for an intervention or out of therapeutic concern was positively related to obtaining informed consent, further underscoring the importance of examining purpose of mental health professionals' online searches. The second most reported reason was to verify what the client said in session. This could indicate a lack of trust in the client's truthfulness or ability to convey information accurately. Additionally, if informed consent was not obtained before the search and a discrepancy was found in client's in-session reports and information obtained online, potential damage to the therapeutic alliance could result.

Some have argued that information online is public; therefore, clients cannot expect their online behaviors to be private. Whether or not the client has an expectation of privacy, the intentionality of the clinician needs to be considered. Although it would be considered reasonable to discuss a chance in-person encounter in therapy where the client was observed doing behaviors related to their treatment (e.g., see client who is being treated for substance abuse at a bar drinking), it would generally be considered unethical to observe clients without their knowledge and consent. This also holds true for the online environment. Even though mental health professionals may unintentionally encounter information about their clients online (e.g., client is featured in a prominently displayed online news article), purposefully searching out information without client consent could be considered a violation of a client's rights.

There were significant differences among participants who completed their clinical experience in a school psychology program and those in clinical or counseling programs, with those in school psychology programs endorsing higher levels of disclosure of client information. This difference may be related to differences in norms for clinical sites. For example, school psychologists may be part of a school's multidisciplinary team (i.e., member of a group for child's individualized education plan) and be responsible for conveying test results to parents and appropriate school personnel. Level of interaction and interconnectedness among personnel in a school setting versus a community clinic or hospital may influence perceptions of acceptability of disclosure. Furthermore, school psychologists are working with minors on behalf of the school; therefore, they are expected to share information with relevant school personnel as well as with parents. It is possible that this results in having more lax boundaries with respect to sharing client information, both in person and online. The moderating role of ethical decision-making in school psychology programs suggests that additional training in ethics might improve inappropriate disclosure levels.

As predicted, lower scores on the ethical decision-making scale correlated with higher levels of disclosure. Although some of the questions in the ethical boundaries scale were blatantly unethical (e.g., planning a relationship with a current client), others involved scenarios that were not as clear-cut (e.g., coming back after your shift is over to check on a client who recently shared distressing information in session). Individuals who rated the ethically questionable in-person scenarios as unethical were also more likely to rate online disclosures of client information under a variety of circumstances as unethical. This suggests that participants who drew a firm line (i.e., endorsed never ethical) for the hypothetical in-person scenarios may be more likely to transfer this stringent practice to their online behaviors. These are self-reported behav-

iors and beliefs, however, and may not be accurate reflections of participants' actual online behaviors.

Limitations of the Present Study

Several limitations need to be noted, including the following: method of survey administration; scale construction; observed effect sizes; and use of a graduate student sample. Although it has become increasingly common to administer surveys online, there is inherent bias in doing so. To complete the survey, the participant had to have a basic familiarity with navigating the Internet, which may have introduced bias given that this study was about social networking use on the Internet. Additionally, the use of survey methods and self-report data can be subject to under reporting as a result of social desirability. It is also important to note that with the exception of the boundaries in practice scale, the senior researcher created measures for online behavior. Although the coefficient alphas indicated adequate internal consistencies for the measures, the construct validity could be strengthened by use of expert raters and having an external sample of practitioners rather than only students. Observed effect sizes were also a limitation. The models accounted for 10% of the variance (for online search of client information) to 22% of the variance (for online disclosure of client information) suggesting that other important variables are still unaccounted for and should be explored in future research. Finally, because the sample consisted of graduate students, results cannot be generalized to professionals in clinical practice.

Conclusions

In light of the findings of this study, it is clear that mental health graduate students are engaging in activities that are ethically questionable (e.g., conducting an online search without informed consent). Of the 315 participants, more than half reported that they did not believe that their graduate program adequately addressed professional social networking guidelines, and slightly less than half did not believe their professional organization adequately addressed professional social networking guidelines. It is clear that many graduate students are looking for guidance on how to navigate ethical dilemmas created by social networking.

Surprisingly, of those who indicated searching for clients online or disclosing client information, a quarter reported that they never discussed social networking use that related to their clinical work with their clinical supervisor. To minimize or avoid ethical and legal infractions regarding online behaviors, mental health graduate students should seek professional consultation from clinical supervisors, keep careful documentation, and thoughtfully consider alternatives. Results of this study indicate that mental health graduate students' use of social networking in their clinical work warrants further attention from professional organizations and training programs. Discussing technology use in clinical practice and encouraging critical thinking regarding ethically questionable behaviors may reduce potential harm to clients and maintain the public's trust in the confidential and nonmaleficent nature of the mental health professional-client relationship. Ethical training could be potentially augmented by including scenarios that encourage the application of the ethical code in cases that are less clearly defined legally or by respective ethical standards (e.g., APA, 2010) as "right" or "wrong."

Even though participants may not believe that the information they share online could reveal client identity, it is difficult to distinguish what degree of disclosure would cross the boundary as identifiable. As previously noted, malpractice suits have been brought against members of the medical field for releasing information that the patient felt could identify them. Furthermore, it is becoming increasingly common for clients to conduct an online search of their mental health professional. Lehavot et al. (2010) found that the majority (70%) of mental health trainees seeing clients were informed by a client that he or she had obtained information about the trainee through the Internet. Imagine the potential damage a therapeutic alliance could suffer if a client found information posted online by their clinician that they believed referenced him/her. Any level of disclosure, even disclosure that the professional does not think is identifiable, runs the risk of violating ethical boundaries. Graduate students need to examine what purpose an online disclosure is serving and whether there is a potential to cause harm to the client. Professional organizations and graduate programs need to address the question of what, if any, client information is acceptable to disclose online.

The responsibility for information that is indirectly obtained through social networking is ambiguous, which underscores the importance of openly discussing with the client the intended therapeutic use of social networking. If viewing a client's social networking page is deemed appropriate by both clinician and client, it is important that mental health professionals are familiar with the state laws regarding when to breach confidentiality. Additionally, the rationale for the search, the potential benefits and anticipated consequences, and discussions with the client need to be documented carefully in the client's file before conducting any online search. Following these suggested recommendations and generating open discussion among members of the mental health field can help reduce or avoid serious ethical infractions.

References

- American Psychological Association. (2010). *American Psychological Association ethical principles of psychologists and code of conduct*. Retrieved October 16, 2011, from <http://www.apa.org/ethics/code/index.aspx>
- Behnke, S. (2008). Ethics in the age of the internet. *Monitor on Psychology*, 39, 74-75. Retrieved from <http://www.apa.org/monitor/index.aspx>
- Bodenhorn, N. (2006). Exploratory study of common and challenging ethical dilemmas experienced by professional school counselors. *Professional School Counseling*, 10, 195-202. Retrieved from <http://www.schoolcounselor.org/content.asp?contentid=235>
- Clark, J. R. (2010). Social media and privacy. *Air Medical Journal*, 29, 104-107. doi:10.1016/j.amj.2010.02.005
- Dailor, A. N., & Jacob, S. (2011). Ethically challenging situations reported by school psychologists: Implications for training. *Psychology in the Schools*, 48, 619-631. doi:10.1002/pits.20574
- DiLillo, D., & Gale, E. B. (2011). To Google or not to Google: Graduate students use of the internet to access personal information about clients. *Training and Education in Professional Psychology*, 5, 160-166. doi:10.1037/a0024441
- Frye, N. E., & Dornisch, M. M. (2010). When is trust not enough? the role of perceived privacy of communication tools in comfort with self-disclosure. *Computers in Human Behavior*, 26, 1120-1127. doi:10.1016/j.chb.2010.03.016
- Kendall, M., Fronek, P., Ungerer, G., Malt, J., Eugarde, E., & Geraghty, T. (2011). Assessing professional boundaries in clinical settings: The de-

- velopment of the boundaries in practice scale. *Ethics & Behavior*, 21, 509–524. doi:10.1080/10508422.2011.622186
- Koocher, G., & Keith-Spiegel, P. (2008). *Ethics in psychology and the mental health professions standards and cases* (3rd ed.). New York, NY: Oxford University Press.
- Lehavot, K., Barnett, J. E., & Powers, D. (2010). Psychotherapy, professional relationships, and ethical considerations in the myspace generation. *Professional Psychology: Research and Practice*, 41, 160–166. doi:10.1037/a0018709
- Madden, M., & Zickuhr, K. (2011). 65% of online adults use social networking sites: Women maintain their foothold on SNS use and older Americans are still coming abroad. *Pew Research Center*. Retrieved October 25, 2011, from <http://www.pewinternet.org/~media/Files/Reports/2011/PIP-SNS-Update-2011.pdf>
- Martin, S. (2010). The internet's ethical challenges: Should you Google your clients? Should you friend' a student on Facebook? APA's ethic's director Stephen Behnke answers those questions and more. *Monitor on Psychology*, 41, 32. Retrieved from <http://www.apa.org/monitor/index.aspx>
- McMinn, M. R., Hathaway, W. L., Woods, S. W., & Snow, I. N. (2009). What American Psychological Association leaders have to say about Psychology of Religion and Spirituality. *Psychology of Religion and Spirituality*, 1, 313. Retrieved from <http://www.apa.org/pubs/journals/rel/index.aspx>
- Norcross, J. C., Sayette, M. A., Mayne, T. J., Karg, R. S., & Turkson, M. A. (1998). Selecting a doctoral program in professional psychology: Some comparisons among PhD counseling, PhD clinical, and PsyD clinical psychology programs. *Professional Psychology: Research and Practice*, 29, 609–614. doi:10.1037/0735-7028.29.6.609
- Pope, K. S., & Vetter, V. A. (1992). Ethical dilemmas encountered by members of the American Psychological Association: A national survey. *American Psychologist*, 47(3), 397–411. doi:10.1037/0003-066X.47.3.397
- Rollins, J. (2011). ACA kicks off major revision of profession's code of ethics. *Counseling Today*. Retrieved November 5, 2011 from <http://ct.counseling.org/2011/06/aca-kicks-off-major-revision-of-professions-code-of-ethics/>
- Somberg, D. R., Stone, G. L., & Claiborn, C. D. (1993). Informed consent: Therapists beliefs and practices. *Professional Psychology: Research and Practice*, 24, 153–159. doi:10.1037/0735-7028.24.2.153
- Statistics. (2010). Press room: Statistics. *Facebook.com*. Retrieved October 29, 2010, from <http://www.facebook.com/press/info.php?statistics>
- Taylor, L., McMinn, M. R., Bufford, R. K., & Chang, K. B. T. (2010). Psychologists' attitudes and ethical concerns regarding the use of social networking web sites. *Professional Psychology: Research and Practice*, 41, 153–159. doi:10.1037/a0017996
- Zur, O., Williams, M. H., Lehavot, K., & Knapp, S. (2009). Psychotherapist self-disclosure and transparency in the internet age. *Professional Psychology: Research and Practice*, 40, 22–30. doi:10.1037/a0014745

Received September 21, 2012

Revision received May 9, 2013

Accepted May 12, 2013 ■

Psychologists' Attitudes and Ethical Concerns Regarding the Use of Social Networking Web Sites

Laura Taylor, Mark R. McMinn, Rodger K. Bufford, and Kelly B. T. Chang
George Fox University

Most psychologists seek to control self-disclosures they make to patients, but the Internet's rapid development and widespread use over the past decade have introduced new problems for psychologists trying to avoid inappropriate disclosures. A total of 695 psychology graduate students and psychologists were surveyed about their current use of social networking Web sites (SNWs), opinions regarding regulation of online activities by the American Psychological Association (APA), and interactions in clinical work as a result of online activities. Established psychologists seldom use SNWs and may lack the experience to provide relevant supervisory guidance. No consensus about the need for APA guidelines emerged. Historically, APA has not issued guidelines in technological areas of rapid change. Thus, graduate training and continuing education should address the ethics of SNWs.

Keywords: social networking, MySpace, Facebook, self-disclosure, Internet

During an intake interview, a male client asks a female psychologist if she is married. Should the psychologist provide a direct answer, or would it be better to focus on the client's feelings and motives in asking such a question? It would be a much simpler matter if the client were to ask the psychologist for sexual favors—the answer to such a question is no and is clearly mandated by ethics and practice standards. Similarly, it would be relatively simple if the client were to ask for a glass of water. The answer would be yes, supported by human civility, compassion, and common sense. But the question about a psychologist's marital status is not a simple matter. Is this as innocuous as asking for a

glass of water, or could it be a precursor to sexual innuendo or flirtation?

Whereas some professional practice behaviors are simple matters of adhering to well-defined practice standards, self-disclosure is a more difficult matter because practice standards are not highly prescriptive, and because both advantages and disadvantages abound when it comes to revealing personal information to clients. Not surprisingly, different psychologists come to different conclusions, but virtually all psychologists affirm the importance of being thoughtful and intentional about how they handle issues of self-disclosure (Schwartz, 1993).

Professional distance helps maintain safety for clients. Psychologists who fail to maintain personal boundaries can emotionally harm clients. Appropriate boundaries can aid in focusing therapeutic work on the issues of clients. Self-disclosures of an intimate nature by the psychotherapist can be especially damaging when a strong therapeutic relationship has not been previously established. There are many instances when self-disclosure is contraindicated, such as when clients have poor boundaries and when the psychotherapist is especially vulnerable to potential boundary violations because of life circumstances (Goldstein, 1994).

Although there are many possible problems with psychotherapist self-disclosure, there are reasons it is used in some clinical situations when the content of and reasons for the disclosures are carefully considered (Bridges, 2001). For example, disclosures about how a psychotherapist experiences the therapeutic relationship are sometimes used to help the client see patterns that may occur in other relationships (Maroda, 1999). Appropriate disclosures may help psychotherapists improve therapeutic rapport with clients (Lundeen & Schuldt, 1989; Zur, 2009). These findings should not be used to justify indiscriminate self-disclosure in psychotherapy. Disclosures of psychotherapists' countertransference feelings have been found to damage therapeutic relationships (Myers & Hayes, 2006). Psychotherapists must be thoughtful and cautious about the information they share with clients, as it seems that subtle differences in

LAURA TAYLOR received a PsyD in clinical psychology from George Fox University. Her primary research interests are graduate education in clinical psychology and impacts of technology on clinical practice.

MARK R. MCMINN received a PhD in clinical psychology from Vanderbilt University. He is currently a professor of psychology at George Fox University. His primary research interests pertain to spiritual and religious issues in psychotherapy.

RODGER K. BUFFORD is professor of psychology and former chair in the Graduate School of Clinical Psychology at George Fox University. He earned his BA in psychology from The King's College and master's and doctoral degrees from the University of Illinois at Urbana-Champaign. Research interests include spiritual well-being, spiritual maturity, and spiritual practices; religious/spiritual concerns, interventions, and outcomes in psychotherapy; assessment of mental health treatment outcomes in managed care settings; and clinical supervision ethics, process, and outcomes. A licensed psychologist, he also practices part time at Western Psychological and Counseling Services in Tigard, OR.

KELLY B. T. CHANG received a PhD in psychology: teaching, learning, and cognition from the University of Hawai'i at Manoa. She is currently an assistant professor of psychology at George Fox University. Her primary research interests include positive psychology, emotional intelligence, diversity, and resilience.

CORRESPONDENCE CONCERNING THIS ARTICLE should be addressed to Laura Taylor, 3240 SW 180th Pl, Beaverton, OR 97006. E-mail: haydonla@hotmail.com

clients and situations may determine whether an action is helpful versus harmful to the client.

Zur proposed three different types of self-disclosures in a recent article: deliberate, unavoidable, and accidental disclosures. Deliberate disclosures are made intentionally. Unavoidable disclosures can be intentional or unintentional. They are disclosures made through the course of the psychotherapist participating in his or her normal daily activities. Accidental disclosures often involve unplanned encounters with clients in public places or other unintentional revelations of information (Zur, 2009).

Although self-disclosure practices vary among psychotherapists, all psychologists weigh several factors, or ought to, when making decisions about self-disclosure. These factors include, but are not limited to, theoretical orientation, established research, and ethical guidelines of practice. The implications for the client of any self-disclosure made by the psychotherapist must always be considered to stay within the minimal ethical guidelines of benevolence and nonmaleficence. Because of the potential consequences of these decisions, psychologists avoid self-disclosures of a haphazard or unintentional nature. At the same time, psychotherapists frequently disclose information to clients without the conscious intention to do so (Bridges, 2001; Ehrenberg, 1995). Information can be disclosed through the décor in psychologists' offices, their styles of dress, the holidays they observe, their physical appearance, and many other subtle characteristics (Wilkinson & Gabbard, 1993). These are relatively innocuous examples, but unintentional disclosures can cause problems in psychotherapy if the disclosure involves something inappropriate according to professional boundaries, if it interferes with the treatment process, or if it damages the client's view of the psychotherapist as a competent and trustworthy individual.

The American Psychological Association's (APA) "Ethical Principles of Psychologists and Code of Conduct" does not speak directly to self-disclosure. It does advise against multiple relationships with clients that could result in exploitation or harm to the client (APA, 2002, Section 3.05). Contact with clients via the Internet, whether intentional or not, can change the nature of a client-psychotherapist relationship. It is easy for a client to begin to view the psychotherapist as a friend rather than a hired professional or expert once the client has knowledge of the psychotherapist's personal life. Koocher and Keith-Spiegel (1998) stated, "Careful consideration should be given prior to softening a strictly professional relationship" (p. 173). It is difficult to establish firm ethical standards around self-disclosure because different types of self-disclosure have different implications for the psychotherapy relationship (Hill & Knox, 2001; Peterson, 2002). Most psychologists agree that disclosures about current stressors, personal fantasies or dreams, and sexual or financial circumstances are almost never considered to be ethical or helpful (Gutheil & Gabbard, 1993). Information disclosed about a psychotherapist's family, hobbies, life struggles, political opinions, and other topics might be perfectly appropriate if shared with friends, but this kind of information can be a cause of conflict and can blur boundaries within a therapeutic relationship.

Given the rapid technological changes of the past several decades, for today's psychologists, unintentional self-disclosure is not limited to the art on one's office wall. A curious client may conduct an Internet search to discover any available information about a particular psychologist's life. Self-disclosures that take

place over the Internet could also be seen as what ethics experts sometimes describe as "small-world hazards" (Campbell & Gordon, 1993) or "everyday life hazards" (Zur, 2009). These disclosures are thought to be largely unavoidable and should be dealt with in a direct manner as soon as they are recognized. But when small-world hazards involve the very large world of the Internet, it is often difficult to know that any disclosure has been made; therefore, it is difficult to deal with the disclosure in a direct manner.

Many psychotherapists maintain Web sites describing their professional activities and services. Other psychologists are featured on the Web sites of organizations for which they are employed. Some psychotherapists allow clients to contact them via e-mail, and a few are even conducting therapy over the Internet (Rosen & Weil, 1996). One of the primary ethical concerns regarding use of e-mail and other online communications in clinical psychology is privacy and confidentiality for the client (Jerome et al., 2000). Clients may believe that the Internet is secure or that their e-mails are confidential and private when this is not always the case. Because of these risks to confidentiality, informed consent before a client participates in such activities becomes extremely important.

Numerous different social networking Web sites (SNWs) have become popular for entertainment and communication in recent years. Popular sites include MySpace, Flickr, YouTube, Facebook, Second Life, Classmates.com, Friendster, Twitter, and Yahoo! 360. A personal Web page on one of these sites can contain a wide array of personal information about the subject of the page, including names of family members, group and club memberships, or substance use behaviors. A subscriber can post almost any information he or she chooses, and anyone listed as a "friend" can also post information to someone's Web page. This often means that potentially embarrassing stories, photographs, and information are posted to the site by someone other than the subject of the page. Some of the information typically featured on SNWs might be considered taboo for sharing within therapeutic relationships; however, clients can freely access the SNWs of anyone they choose unless the privacy settings prohibit access. Even if privacy settings do not allow visitors to view a psychologist's SNW, anyone can send a "friend request" to the psychologist, asking to be accepted as a "friend." If a client were to do this, then the psychologist is left with a difficult choice of ignoring or rejecting the friend request on the one hand or accepting the friend request and allowing the client access to the psychologist's personal information on the other hand.

It is not clear how psychologists currently use SNWs, and how they handle the issues of self-disclosure that naturally arise for those who subscribe to SNWs. To gain information about psychologists' and psychology graduate students' behavior, we conducted a national survey.

Social Networking Survey

Students enrolled in doctoral-level psychology training programs and currently licensed psychologists were contacted through e-mail and asked to complete an online questionnaire. The names and e-mail addresses of potential participants were obtained through two different means. First, psychologists' names were obtained through the online membership directory of the APA.

Through random selection, 400 APA members' names and e-mail addresses were obtained. Of these 400 e-mail addresses, 358 were still active or able to receive the message. Second, we contacted 205 training directors and faculty from selected APA-accredited doctoral programs in clinical and counseling psychology and requested that a link to the survey and an e-mail explaining the study be forwarded to students. In total, 929 individuals visited the site, and 695 participants completed the survey. Because of the snowball sampling method used, it is impossible to know the exact response rate, but the completion rate of 67% was respectable.

Of the 695 participants, 114 (16%) were men and 580 (84%) were women. One participant declined to report a gender. With respect to ethnicity, 562 (81%) identified themselves as European American, 25 (4%) as Latino American, 24 (4%) as African American, 19 (2%) as Asian American, 18 (2%) as multiracial, 4 (1%) as Native American, 35 (5%) as other, and 8 (1%) did not report ethnicity. The mean age of participants was 29 years ($SD = 7.6$). The ages of participants ranged from 22 to 79 years. The majority of participants (55%) reported their highest degree to be a master's degree, 31% a bachelor's degree, 9% a PhD, 3% a PsyD, and 2% had earned another degree. Only 63 (9%) participants were licensed psychologists, indicating that the majority of the sample (632 or 91%) comprised graduate students. An additional 36 respondents (5%) possessed a doctoral-level degree in psychology but were not yet licensed. The limited number of licensed psychologists included in the study means that findings cannot be generalized to the larger populations of psychologists or APA members.

The online questionnaire was developed specifically for the purposes of this descriptive study, although the format is similar to ethics questionnaires used in past research on the beliefs and behaviors of psychologists (e.g., McMinn, Buchanan, Ellens, & Ryan, 1999; Pope, Tabachnick, & Keith-Spiegel, 1987). It featured 14 questions intended to gather information about participants' current use of SNWs and other online activities, beliefs about possible regulation of online activities by the APA, and interesting or difficult encounters participants have had with clients as a result of online activities. Nine of the 14 questions were rated on two separate 5-point Likert-type rating scales—one scale based on

whether the respondent engages in this practice (1 = *never* to 5 = *very often*) and one scale based on whether the respondent believes the behavior to be ethical (from 1 = *unquestionably not* to 5 = *unquestionably yes*). An additional item asked respondents whether they maintained a SNW (yes or no) and then asked respondents to rank the ethics of doing so on the same 5-point Likert-type scale used for other ethics ratings. For those respondents who did maintain a SNW, they were asked if the page was set to "private." Respondents were also asked whether they thought APA should create ethical standards around the use of Web resources, rated on a Likert-type scale ranging from 1 (*definitely no*) to 5 (*definitely yes*). They were also asked whether they had thought about possible ethics and safety ramifications of SNWs, rated on a Likert-type scale ranging from 1 (*not at all*) to 5 (*a great deal*). The survey also featured a short demographics section and an open-ended question asking respondents to describe a challenging or interesting interaction with a client regarding online activities.

The majority of participants (77%) reported maintaining a page on an SNW. Of those who do have an SNW, most (85%) reported they were using privacy settings to protect their personal information. As expected, there was a significant negative correlation ($r = -.45, p < .01$), indicating that younger respondents were more likely to maintain an SNW than older respondents. Although there were only 15 respondents over the age of 54 in the sample, none of them reported that they maintained an SNW. In contrast, 86% of the 528 respondents under the age of 30 did.

Participants ranked nine behaviors (shown in Table 1) according to how often they had engaged in the particular behavior. The behaviors are listed in order from those most frequently engaged in to those least frequently engaged in by survey participants. A repeated measures multivariate analysis of variance (MANOVA) indicated overall differences in the ratings, Wilks's $\Lambda(8, 508) = .26, p < .05$. Adjacent items were then compared using a profile analyses with paired sample t tests to determine which items on the list were rated significantly differently from the items preceding them. Significant differences were observed for all but one of the adjacent means. In particular, participants stated that they would reject or ignore attempted client contact by SNWs (a rating of 3.4)

Table 1
Behaviors Ordered by Frequency of Reported Occurrence

Item	M	SD	Comparison with previous item	
			$t(8)$	d
Rejecting or ignoring a client when they attempt to make contact through a social networking website	3.4	1.8		
Posting photos or video of self on a website for private use	2.9	1.3	5.4**	0.28
Posting photos or video clips of friends or family members online	2.8	1.3	3.3*	0.07
Allowing clients to e-mail you	1.8	1.1	15.8**	0.88
Using phony names or photos when engaging in online activities in order to disguise identity	1.5	1.1	3.8**	0.21
Searching for a client on a social networking website	1.3	0.6	6.3**	0.28
Posting photos or video clips of self on a website for professional use	1.2	0.6	2.6**	0.18
Working with clients who learned of you through an Internet search	1.2	0.6	1.6	
Discussing aspects of online activities with clients	1.1	0.3	2.9*	0.17

Note. Ratings were provided on a Likert-type rating scale based on whether the respondent engaged in this practice, ranging from 1 = *never* to 5 = *very often*. The t values are reported for paired samples t tests, and d values are reported for effect size using Cohen's d .

* $p < .01$. ** $p < .001$.

but often posted photos or videos of themselves (a rating of 2.9) and family or friends (a rating of 2.8); all of these behaviors were much more likely than the other behaviors investigated (Cohen's $d > 0.88$). These same nine items—plus an item about a psychologist having an SNW—were also rated on the basis of how ethical they were perceived to be and are reported in Table 2. A repeated measures MANOVA demonstrated overall differences among the ethics ratings, Wilks's $\Lambda(9, 656) = .18, p < .05$. Adjacent ethics ratings were then compared using a profile analyses with paired sample t tests.

When asked to rate the amount of thought they had given to the ramifications of using SNWs, most participants ($n = 407$) reported that they have thought about this issue either *somewhat* (a rating of 3) or *quite a lot* (a rating of 4), with an overall mean rating of 3.6 on the 5-point Likert-type scale. Only 56 people reported that they had not thought about the ramifications of using SNWs at all. A negative correlation was found between age and the degree to which a person reported having thought about the ramifications of using SNWs ($r = -.23, p < .01$).

Respondents were also asked whether they would like APA to impose specific rules and guidelines regarding the use of Web sites, including SNWs. There was no clear consensus on this matter, with a mean rating near the midpoint of 3 on the 5-point Likert-type scale ($M = 3.2, SD = 1.2$). A small but significant negative correlation was found with age ($r = -.16, p < .01$). This correlation indicated that the younger a respondent was, the more likely he or she was to favor APA involvement in these issues.

A total of 100 individuals also provided qualitative information about challenges they have faced regarding use of SNWs or other online activities. Several different themes came up in numerous responses. Many respondents provided personal stories about discovering that they shared common friends or acquaintances with their clients through SNWs. Most of these respondents stated that they promptly removed their pages entirely or altered the content of their pages after discovering the connections. Many other respondents reported that they maintain SNWs, but that they try to avoid ethical problems by keeping their pages set to the highest

privacy settings available. Some of these people stated that they do not use their real names on pages or that they use only a first name.

Several respondents drew a distinction between issues that arise when they are working as a professor as opposed to working as a psychotherapist. Of these participants, many expressed the opinion that students were more likely to try to contact them through an SNW than clients were. Most stated that they maintain the same personal policy toward students that they use for clients, which is no contact with students via SNWs.

Many respondents made a point of stating that they feel it is very important for the strength of the psychotherapy relationship to discuss attempts by clients to contact their psychotherapist online in the next face-to-face session. Other concerns mentioned included inadvertently coming into contact with clients or relatives of clients on dating Web sites, clients mentioning suicidal or homicidal ideation on blogs or Web sites, and clients who want to be contacted via e-mail because they do not have a telephone.

Professional Implications

MySpace was launched in August 2003 and Facebook in February 2004. Since the introduction of these sites, millions of people worldwide have joined SNWs by posting their own pages. These sites provide entertainment and communication opportunities, but they also present unique ethical and safety issues for psychologists who must be vigilant about issues of self-disclosure, client confidentiality, and safety.

Early Career Psychologists, Graduate Students, and SNWs

Of the mostly early career psychologists and doctoral-level psychology students who participated in this study, 77.3% reported that they communicate with friends and family through SNWs. On the basis of this survey, it seems that respondents with SNWs are aware of the clinical and ethical implications, but it also seems

Table 2
Ethics of Behaviors Ordered by Degree of Endorsement

Item	M	SD	Comparison with previous item	
			$t(9)$	d
Posting photos or video of self on a website for private use	4.1	0.8		
Posting photos or video clips of friends or family members online	4.0	0.9	6.3**	0.18
Maintaining a page on a social networking website	3.9	0.8	1.6	
Working with clients who learned of you through an Internet search	3.7	1.0	5.6**	0.28
Rejecting or ignoring a client when they attempt to make contact through a social networking website	3.7	1.2	0.6	
Posting photos or video clips of self on a website for professional use	3.6	1.1	1.5	
Using phony names or photos when engaging in online activities in order to disguise identity	3.3	1.2	5.5**	0.27
Allowing clients to e-mail you	3.2	1.1	1.7	
Discussing aspects of online activities with clients	2.1	0.9	23.3**	1.05
Searching for a client on a social networking website	2.0	1.0	3.4*	0.14

Note. Ratings were provided on a Likert-type rating scale based on whether the respondent believes the practice to be ethical, ranging from 1 = *unquestionably not* to 5 = *unquestionably yes*. The t values are reported for paired samples t tests, and d values are reported for effect size using Cohen's d .

* $p < .01$. ** $p < .001$.

evident that SNWs amplify the possibilities of unintentional disclosures to and encounters with clients.

The relationship of age to SNW use is intriguing for at least three reasons. First, psychologists with the least amount of professional experience will be facing some of the most complex situations regarding the distinction between professional and private information. Normally, early career psychologists could look to more experienced psychologists in situations such as this, but if the more experienced psychologists do not understand the nuances of SNWs, they are not likely to be able to provide helpful consultation on this matter. Students may avoid seeking guidance on these issues because of a perceived lack of knowledge regarding these issues on the part of supervisors. Technology could create a threat to usual patterns of supervision that occur in professional psychology. These early career psychologists were also more likely than their more experienced colleagues to express a desire for APA involvement in these issues. It seems that these early career psychologists want more guidance and supervision on these difficult issues. In addition, there may be ethical issues about the use of SNWs in investigating students for placement decisions because training directors of doctoral programs, practicum sites, and internships can access the information on these sites, just as anyone else can (Lehavot, 2009). In some cases, students or employees may be reluctant to bring up issues related to SNWs or the Internet out of a fear that their supervisors will then decide to search for information about the supervisees online.

Because SNWs are most prevalently used by young early career psychologists and graduate students, it would not be difficult to predict that this social phenomenon could be underestimated or overlooked by APA leaders, who tend to be older, more established psychologists, and are thus less likely to use these technologies. McMinn, Hathaway, Woods, and Snow (2009) recently surveyed APA council representatives and division presidents and reported an average age of 58.5 years, which is notable because not a single respondent over the age of 54 in the current study maintained an SNW. It is encouraging that APA Ethics Director Stephen Behnke has recently devoted two *APA Monitor on Psychology* columns to the complexity of ethics situations that arise because of the Internet (Behnke, 2007, 2008).

Third, it seems likely that technological changes may drastically affect the way clients and psychologists associate in the future. Youthful clients may use SNW and other online resources as a point of connection with their psychotherapists. Schwartz (1993) discussed psychotherapist self-disclosure as a means of achieving a better match between client and psychotherapist. He asserted that closeness, match, and relationship are so important to the success of psychotherapy that some sharing on the part of the psychotherapist may be necessary for the client to be able to make an informed choice when selecting a psychotherapist and to continue to feel bonded to that psychotherapist over the course of their work together. It seems that clients and psychotherapists in their 20s and 30s are using SNWs as one possible way to make these connections. Clients may seek the match Schwartz discussed by learning more about potential psychotherapists online. In the present study, respondents reported very little online communication with clients, and they saw this as ethically problematic. *Never* was the most common response for participants in this study when asked how often they allow clients to e-mail them, search for a client on an SNW, or work with a client who learned of them through an

Internet search. But as culture changes and computers and wireless technology become increasingly prominent means of communicating, it seems possible that psychologists will become more accepting of this as a way to communicate and connect with clients and potential clients. If so, this raises interesting professional and ethical challenges as the distinctions between private and public blur (Behnke, 2008). Online communications can also be more casual and spontaneous than other types of interactions, often leading people to disclose information online that they would have otherwise withheld (Gutheil & Simon, 2005).

The Demise of Intentionality

The greater concern about Internet communications may not be the ubiquity of communication but the diminishing of intentionality. All psychologists make disclosures to clients. For example, it would be inconceivable for a psychologist not to disclose his or her office location or fee structure. Some make more personal disclosures, such as marital status, the number of children they have, their religious affiliation, and so on. These disclosures may help establish rapport by helping the psychologist be perceived as honest, accessible, and genuine (Maroda, 1999), whereas excessive or unintentional disclosures may easily shift the focus of therapy away from the client and damage the psychotherapeutic relationship (Bridges, 2001). Regardless of how much a psychologist discloses, it is important to have personal guidelines around self-disclosure. Myers and Hayes (2006) emphasize the importance that all self-disclosure decisions made by psychotherapists be grounded in an underlying rationale. They stated that making decisions about self-disclosure is unavoidable in therapeutic work, but that psychotherapists must structure personal guidelines around theory and ethics and be able to explain their decisions if called on to do so. Even when a psychologist creates concrete guidelines for himself or herself around the area of self-disclosure, the Internet can potentially counteract even the best of intentions on the part of an ethical psychologist.

This is not to say that some intentionality is no longer possible, but full intentionality is a thing of the past. Psychologists can be cautious in their privacy settings on SNWs, and many in the present study were. Alternatively, psychologists may choose not to have an SNW at all. But even with this choice, the widespread availability of search engines makes virtually any psychologist easy to research. Clients with an Internet connection have free access to some public records, and for a small fee many sites make other records available. Intentionality about self-disclosure is an important issue, but full intentionality may be impossible. How can psychologists manage professional work in a time when information can no longer be kept from inquiring clients? This is a professional issue that needs to be discussed in various venues.

The Dilemma of Regulation and Need for Training

Respondents in the present study expressed uncertainty, or perhaps ambivalence, as to whether the APA should be involved in establishing guidelines or regulations regarding Internet communications with clients. This uncertainty is reasonable considering the situation in which psychologists find themselves. On one hand, psychologists and graduate students in this survey—most of them young and relatively inexperienced in professional psychology—

could benefit from having clear guidelines for how to manage technology advances. On the other hand, technological change is too rapid and ubiquitous to maintain any expectation that the APA Ethics Committee could possibly keep up and publish relevant standards on each new technology that has implications for professional psychology. Other than two iterations of a statement on services by telephone, teleconferencing, and the Internet (APA Ethics Committee, 1997), the committee has tended to avoid efforts to offer advisory or regulatory statements pertaining to technological advances. Rather, it has attempted to coordinate the development of the APA "Ethical Principles of Psychologists and Code of Conduct" (e.g., APA, 2002) in a way that provides guidance for psychologists who will inevitably need to respond to changes in the field, including technological changes.

Thus, it seems unlikely that the APA Ethics Committee will set any formal guidelines on the use of SNWs in the near future, and this lack of action is likely the most reasonable response given the accelerating rate of technological change. The APA "Ethical Principles of Psychologists and Code of Conduct" (APA, 2002) states:

In those emerging areas in which generally recognized standards for preparatory training do not yet exist, psychologists nevertheless take reasonable steps to ensure the competence of their work and to protect clients/patients, students, supervisees, research participants, organizational clients, and others from harm. (Principle 2.01e)

What are the reasonable steps that psychologists can take in response to the blurring of public and private information resulting from Internet technology? We recommend that graduate programs consider adding some discussion of Internet technologies to their ethics training. Also, continuing education in ethics should address issues created by the growth of Internet communications. Early career psychologists must be asked to consider problems and situations that can arise from their use of the Internet. Many ethics courses and trainings feature the use of vignettes and ask participants to consider what the most ethical course of action would be if they found themselves in a similar situation. These same tactics could be applied to situations involving SNWs and the Internet. The primary guidelines for such training would likely involve maintaining appropriate boundaries with clients, keeping psychotherapy focused on the needs and issues of the clients, and avoiding actions that could cause psychological or emotional harm to clients.

Self-Monitoring

One of the primary implications of this study, for psychologists and graduate students, is that individual practitioners must establish their own self-monitoring strategies regarding online behavior. Peer consultation, documentation, and thoughtfulness may be the best methods psychologists have to protect themselves. The qualitative data provided by study participants provide some suggestions for prevention of online disclosures. Several participants reported that they announce to students that all attempts to contact them via SNWs will be ignored or rejected. Other study participants recommended that psychologists "Google" themselves to see what comes up through the search. This could be helpful not because one can control the information that circulates on the Internet, but rather so the practitioner would be informed if a client ever brought such information up in psychotherapy. Many respon-

dents emphasized the importance of having open discussions in the next session following any online contact with a client. Most stated that they believe being open and honest about such contact can repair any damage to the relationship and can help correct any false interpretations of information obtained online. Also, a number of participants reported that their Web pages are set to the highest allowable levels of security; others stated that they use pseudonyms online for the specific purpose of making it difficult for clients to locate them.

Although these suggestions are probably helpful in most cases, other reports served as reminders of the dire possibilities that emerge because of online networking. Some respondents noted that they occasionally found pictures of clients on the Web sites of their friends or family members, and that they had no prior knowledge of these relationships. A few participants even reported that they had been matched to current or former clients through anonymous dating Web sites.

It seems clear that psychologists must consider the potential risks and consequences associated with maintaining SNWs. For psychologists who choose to maintain a page on one of these sites, a number of important decisions must be made regarding whether or not the site will be set to private, how they will handle attempts by clients to make contact with them, and what specific content they will post on their page. Considering the "small-world hazards" that rural psychologists often face, and how they manage these hazards, may serve as a helpful point of comparison for psychologists with SNWs (Campbell & Gordon, 1993). Rural psychologists almost inevitably have unplanned encounters with some of their clients because of the size of the communities in which they live and practice. The Internet harbors similar hazards because psychologists have little control over when, where, and how their clients may encounter information about them online. Psychologists must take reasonable actions to avoid foreseeable problems with online information, and they must be prepared to do damage control after clients seek their information through the Internet.

Conclusion

This article provides an initial look at the professional and ethical implications of SNWs, but much more research and professional discussion are needed. There are a number of limitations to this study, including the preponderance of graduate student respondents as compared with a small number of psychologist respondents, the relative homogeneity of the sample with regard to age and ethnicity, the exclusive use of electronics to distribute the survey, the limited number of questions posed to respondents, and the possible selection bias among those who chose to respond to the survey.

More research and professional conversation are needed to explore further the topic of SNWs and related topics. We have focused on the beliefs and behaviors of psychologists regarding SNWs, but it would also be interesting to find out more about the online behavior of psychotherapy clients. It would be helpful to know the types of information clients seek when searching for a psychotherapist online, and which information has the greatest impact on the client's ability to work effectively with the psychotherapist. It seems reasonable to hypothesize that self-disclosures made through SNWs might affect the therapeutic relationship in

ways similar to other forms of self-disclosure, but further research could test this hypothesis. Currently, the percentage of clients who participate in SNWs and the frequency with which they search or try to interact with psychotherapists through this venue are unknown. Future research could examine these questions.

In the meantime, we hope this article helps promote conversations among psychologists and those who train psychologists. Technological change is nothing new to psychologists, and more change is certain to come in the future. The challenge facing us now is a familiar one as we attend to the professional and ethical implications of contemporary change.

References

- American Psychological Association. (2002). Ethical principles of psychologists and code of conduct. *American Psychologist, 57*, 1060–1073.
- American Psychological Association Ethics Committee. (1997, November 5). *Services by telephone, teleconferencing, and Internet: A statement by the Ethics Committee of the American Psychological Association*. Retrieved from <http://www.apa.org/ethics/stmnt01.html>
- Behnke, S. (2007, January). Posting on the Internet: An opportunity for self (and other) reflection. *APA Monitor on Psychology, 38*(1), 60.
- Behnke, S. (2008, July/August). Ethics in the age of the Internet. *APA Monitor on Psychology, 39*(7), 74.
- Bridges, N. A. (2001). Therapist's self-disclosure: Expanding the comfort zone. *Journal of Psychotherapy: Theory, Research, Practice, Training, 38*, 21–30.
- Campbell, C. D., & Gordon, M. C. (1993). Acknowledging the inevitable: Understanding multiple relationships in rural practice. *Professional Psychology: Research and Practice, 34*, 430–434.
- Ehrenberg, D. B. (1995). Self-disclosure: Therapeutic tool or indulgence? Countertransference disclosure. *Contemporary Psychoanalysis, 31*, 213–228.
- Goldstein, E. G. (1994). Self-disclosure in treatment: What therapists do and don't talk about. *Clinical Social Work Journal, 22*, 417–433.
- Gutheil, T. G., & Gabbard, G. O. (1993). The concept of boundaries in clinical practice: Theoretical and risk-management dimensions. *American Journal of Psychiatry, 150*, 188–196.
- Gutheil, T. G., & Simon, R. I. (2005). E-mails, extra-therapeutic contact, and early boundary problems: The Internet as a "slippery slope." *Psychiatric Annals, 35*, 952–960.
- Hill, C. E., & Knox, S. (2001). Self-disclosure. *Journal of Psychotherapy: Theory, Research, Practice, Training, 38*, 413–417.
- Jerome, L. W., Deleon, P. H., James, L. C., Folen, R., Earles, J., & Gedney, J. J. (2000). The coming of age of telecommunications in psychological research and practice. *American Psychologist, 55*, 407–421.
- Koocher, G. P., & Keith-Spiegel, P. (1998). *Ethics in psychology: Professional standards and cases*. New York: Oxford University Press.
- Lehavot, K. (2009). MySpace or yours? The ethical dilemma of graduate students' personal lives on the Internet. *Ethics & Behavior, 19*, 129–141.
- Lundeen, E. J., & Schuidt, W. T. (1989). Effects of therapist's self-disclosure and a physical barrier on subjects' perceptions of the therapist: An analogue study. *Psychological Reports, 64*, 715–720.
- Maroda, K. J. (1999). Creating an intersubjective context for self-disclosure. *Smith College Studies in Social Work, 69*, 475–489.
- McMinn, M. R., Buchanan, T., Ellens, B. M., & Ryan, M. K. (1999). Technology, professional practice, and ethics: Survey findings and implications. *Professional Psychology: Research and Practice, 30*, 165–172.
- McMinn, M. R., Hathaway, W. L., Woods, S. W., & Snow, K. N. (2009). What American Psychological Association leaders have to say about *Psychology of Religion and Spirituality*. *Psychology of Religion and Spirituality, 1*, 3–13.
- Myers, D., & Hayes, J. A. (2006). Effects of therapist general self-disclosure and countertransference disclosure on ratings of the therapist and session. *Journal of Psychotherapy: Theory, Research, Practice, Training, 43*, 173–185.
- Peterson, Z. D. (2002). More than a mirror: The ethics of therapist self-disclosure. *Journal of Psychotherapy: Theory, Research, Practice, Training, 39*, 21–31.
- Pope, K. S., Tabachnick, B. G., & Keith-Spiegel, P. (1987). Ethics of practice: The beliefs and behaviors of psychologists as therapists. *American Psychologist, 42*, 993–1006.
- Rosen, L. D., & Weil, M. M. (1996). Psychologists and technology: A look at the future. *Professional Psychology: Research and Practice, 27*, 635–638.
- Schwartz, R. S. (1993). Managing closeness in psychotherapy. *Journal of Psychotherapy: Theory, Research, Practice, Training, 30*, 601–607.
- Wilkinson, S. M., & Gabbard, G. O. (1993). Therapeutic self-disclosure with borderline patients. *Journal of Psychotherapy Practice and Research, 2*, 282–295.
- Zur, O., Williams, M. H., Lehavot, K., & Knapp, S. (2009). Psychotherapist self-disclosure and transparency in the Internet age. *Professional Psychology: Research and Practice, 40*, 22–26.

Received June 21, 2009

Revision received September 14, 2009

Accepted September 16, 2009 ■

Instructions to Authors

For Instructions to Authors, please consult the February 2010 issue of the volume or visit www.apa.org/pubs/journals/pro and click on the "Instructions to authors" tab in the Journal Info box.

Assignment 3

Prior to beginning work on this assignment, read the [PSY650 Week Three Treatment Plan](#) and Case 9: Bulimia Nervosa in Gorenstein and Comer (2014). Please also read the Waller, Gray, Hinrichsen, Mounford, Lawson, and Patient (2014) "Cognitive-Behavioral Therapy for Bulimia Nervosa and Atypical Bulimic Nervosa: Effectiveness in Clinical Settings," Halmi (2013) "Perplexities of Treatment Resistance in Eating Disorders," and DeJesse and Zelman (2013) "Promoting Optimal Collaboration Between Mental Health Providers and Nutritionists in the Treatment of Eating Disorders" articles.

Assess the evidence-based practices implemented in this case study. In your paper, please include the following.

- Explain the connection between each theoretical orientation used by Dr. Heston and the treatment intervention plans utilized in the case.
- Describe the cognitive-behavioral model of the maintenance of bulimia nervosa.
- Explain why Rita was reluctant to participate in Dr. Heston's request for her to keep a record of her eating behaviors. Use information from the Halmi (2013) article "Perplexities of Treatment Resistance in Eating Disorders" to help support your statements.
- Recommend outside providers (psychiatrists, medical doctors, nutritionists, social workers, holistic practitioners, etc.) to the assist Rita in achieving her treatment goals. Use information from the DeJesse and Zelman (2013) "Promoting Optimal Collaboration between Mental Health Providers and Nutritionists in the Treatment of Eating Disorders" article to help support your recommendations.
- Describe some of the challenges and ethical issues that Dr. Heston may encounter when working collaboratively with the professionals that you recommended. Apply ethical principles and standards of psychology relevant to your description of Dr. Heston's potential collaboration with outside providers.
- Evaluate the effectiveness of the treatment interventions implemented by Dr. Heston, supporting your statements with information from the case and two to three peer-reviewed articles from the Ashford University Library.
- Recommend three additional treatment interventions that would be appropriate in this case. The recommended articles for this week may be useful in generating your response to this criterion. Justify your selections with information from the case.

The Case Analysis – Collaborating with Outside Providers

- Must be 4 to 5 double-spaced pages in length (not including title and references pages) and formatted according to APA style as outlined in the [Ashford Writing Center](#) (Links to an external site.).
- Must include a separate title page with the following:
 - Title of paper
 - Student's name
 - Course name and number
 - Instructor's name
 - Date submitted
- Must use at least two peer-reviewed sources from in the Ashford University Library.

- Must document all sources in APA style as outlined in the Ashford Writing Center.
- Must include a separate references page that is formatted according to APA style as outlined in the Ashford Writing Center.

PSY650 Week Three Treatment Plan

Behaviorally Defined Symptoms: Rita attempts to control her weight by fasting or consuming large quantities of food (e.g., multiple slices of pizza, gallons of ice cream) followed by purging (vomiting). Rita binges two to three times per week, and reports feeling “guilty” after each episode.

Diagnostic Impression: Bulimia Nervosa

Long-Term Goal: Reduce bingeing and compensatory behaviors by changing distorted attitudes about weight and any other thinking patterns.

Short-Term Goal: Establish regular eating patterns by eating in regular intervals and consuming 2,000 calories per day.

Intervention 1: Dr. Heston will educate Rita about the etiology of eating disorders.

Intervention 2: Rita will read psychoeducational handouts and treatment manuals for homework.

Intervention 3: Rita will monitor her food consumption using a nutritional journal.

Intervention 4: Dr. Heston will teach Rita how to identify dysfunctional thinking and develop more healthy cognitions and coping skills.

For additional information regarding Rita’s case history and the outcome of the treatment interventions, please see Dr. Heston’s session notes under Case 9 in Gorenstein and Comer’s (2015), *Case Studies in Abnormal Psychology*.

those again one day. She would stand in front of the mirror and suck her stomach in as far as she could and see if that made her feel any better. It tended to make her feel worse, but it did give her more motivation to have a really “good” day the next day.

Repeatedly engaging in body-checking behaviors (e.g., weighing self, checking in the mirror, comparing body to others, measuring body size with clothes or other instruments) has been found to be a maintaining factor of eating disorders (Shafran, Fairburn, Robinson, & Lask, 2004).

Rita: Caught in a Binge-Purge Cycle

Shortly after her 26th birthday, Rita’s eating habits became much more troubled. First she began to have eating binges, perhaps two to three times per week. Typically she would become aware of the urge to binge sometime in the afternoon while at work. Because she restricted her food intake during the day as much as she could, she was hungry, and the food smelled so good. As the afternoon progressed, the urge would build into a sense of inevitability, and by the end of the workday, she knew she would be spending her evening on a food binge. She would then start to fantasize about the foods she would be buying on the way home.

A *binge* is defined as consuming an objectively large amount of food during a relatively short time (less than 2 hours) and is accompanied by a feeling of loss of control (APA, 2013).

The foods that figured in Rita’s binges were items that she had labeled as “bad”—foods that in her mind should never be eaten if she had any hopes of maintaining proper weight. On one binge day, for example, the young woman made three stops on the way home from work. The first was a fast food drive-through, where she ordered an extra-large combo cheeseburger meal. The next stop was a gourmet cookie shop, where she bought three large super chunk chocolate chip cookies. The final stop was the grocery store, where she bought half a gallon of ice cream, which, as usual, was heavily laden with chocolate chips and nuts.

Once home, Rita locked the door behind her and put her phone on silent. Something about the secrecy, the single-mindedness, and what Rita called the depraved indifference of her binges made her feel as if she were committing a crime. Yet once the eating began, she felt powerless to stop it. After the first mouthful, the binge was destined to run its course.

On this particular evening, Rita tore into the cheeseburger first while she sat in her kitchen checking Facebook, Instagram, and Twitter on her iPad. She ate rapidly, without pause, taking little notice of the stories or photos. After the cheeseburger came the cookies; these were gone in a matter of minutes. After about a 20-minute break, during which Rita changed out of her work clothes, she proceeded to the ice cream. This she ate in her living room at a slower, more leisurely pace while she watched the food network on TV. Within about an hour and a half she was scraping the bottom of the carton. Spoonful by spoonful, she had devoured all of it. In fact, within a 3-hour period, Rita had consumed more than 4,000 calories.

The young woman often felt as though she were in a changed state of consciousness during such binges. Nothing else in the world seemed to matter when she was eating like this. She would avoid answering the phone or doorbell.

Although Rita viewed the binge overall with disgust, she couldn’t deny there was some pleasure in it. It was the only situation in which she could eat foods that appealed to her. Under normal conditions, eating was not a source of pleasure, because she would restrict herself to unappetizing foods. For her, normal eating meant dieting—avoiding all foods that she enjoyed. She was convinced that if she regularly ate foods that she did like, she would set in motion a process that she couldn’t stop. And now, indeed, her binges seemed to be bearing this theory out.

Once the binge was over, the next step, in Rita’s mind, was to repair the damage. By the time she was through, she was left with feelings of both physical and psychological revulsion. Physically she would feel bloated. The blow to her self-esteem was even more pronounced. Binge eating was so inconsistent with her usual style of behavior that she wondered if she was developing some sort of split personality: the competent, striving Rita versus the irresponsible, out-of-control Rita. She was becoming concerned for her mental health.

Typically, binges are followed by feelings of extreme self-blame, guilt, and depression, as well as fears of gaining weight and

being discovered (APA, 2013).

Most important, the binge posed a severe threat to the one area of life by which she measured most of her success and worth as a human being: her weight. After a binge, she felt that if she didn't do something about it, she might see a 5-pound weight gain on the scale the next morning. During her first 2 or 3 months of binge eating, she would attempt to avoid weight gains by trying to fast for a day or two. Then she came across a documentary on YouTube featuring women with bulimia that examined purging behavior at length. The message of the documentary was to avoid this fate at all costs. However, with her binges becoming more extreme and her weight reaching an all-time high of 127 pounds, Rita saw purging as the solution to her problem: a way of eating what she wanted while avoiding undesirable consequences.

She started to purge at home several times a week. She would stand over the toilet, touch her finger to the back of her throat, and throw up as much of the binge food as she could. The first time Rita tried this, it was not so easy. Indeed, she was surprised at how hard it was to stimulate a gag reflex strong enough to bring up the food. Eventually, however, she often didn't have to use her finger at all; the food would seem to come up almost automatically as she bent over the toilet.

In the early stages of her disorder, Rita's purging felt gratifying. It typically brought an immediate sense of release, as though some terrible wrong had been set right. The bloated feeling would go away, and Rita would avoid seeing a weight gain the next day. But over the next few months, the need to purge grew and grew. Even after eating normal meals, Rita would feel fat, and she couldn't get the thought of purging out of her mind. p. 137

Beyond purging, the young woman would try additional practices to undo the effects of binge eating. For example, she tried hitting the gym to exercise each day. Before going, however, she had to follow a particular ritual in front of the mirror. She had to convince herself that she looked thin enough to appear in a gym environment. She put on her workout clothes and inspected herself in the mirror from every angle. Rita's weight was within the normal range: she was 5 feet 5 inches tall and weighed 125 pounds. Her body mass index (BMI) was 20.8, which was at the lower end of the normal range of 18.5 to 24.9. Anyone would have described her as slim. However, there were aspects of her body that caused her repeated concern. She felt that her center of gravity was too low, meaning she was heavy in her hips and thighs. If, after surveying herself in the mirror, she believed that she looked dumpy, she would abandon her plan to go to the gym. She just couldn't face going there "looking fat."

People with bulimia nervosa often have numerous inaccurate and disturbed attitudes toward their body size and shape. Compared to individuals without an eating disorder, people with bulimia have a tendency to overestimate their body size in a laboratory setting (Delinsky, 2011; Farrell, Lee, & Shafran, 2005).

Usually, however, if Rita spent enough time in front of the mirror, she was able to convince herself that her appearance was not entirely repulsive. Sometimes to do this she had to change outfits, moving to more concealing clothing. She would spend at least 2 hours at the gym, alternating between jogging on the treadmill and baking in the sauna. Going to the gym achieved two things in her mind. It burned calories and it kept her away from food. When she returned home, usually at about 9:30 P.M., she drank a couple of cans of diet soda and tried going to bed. Unfortunately, the long workout often left her ravenous, and frequently she found herself getting up again to binge and purge.

When she was not bingeing or skipping meals, Rita would try to follow her diet plan: a breakfast of dry toast and juice, a lunch of half a sandwich of dry turkey or tuna on diet bread, and a dinner of a low-calorie frozen meal. Sometimes she would allow herself a snack of fat-free cookies or vanilla frozen yogurt. When eating in this way, she felt she was in an odd harmony with the universe. The restrictive eating gave her a sense of control, competence, and success. She felt more worthy as a human being, and more at peace.

Unfortunately, the controlled feeling could not be sustained. Eventually, she would give in to periodic binges. And after bingeing she felt compelled to begin the cycle all over again.

A Coworker's Perspective: Piecing Things Together

Even as Rita's pattern of bingeing and purging at home was increasing month after month, she was able to keep it under control at her job. She sensed that allowing the pattern to enter her work life would mark the beginning of the end of her promising career. To be sure, there had been some slips. One afternoon, for p. 138

example, she ate a whole order of lasagna in the break room. The full feeling that resulted was so intolerable that Rita went to the employees' bathroom and purged. However, afterward, she felt horrified at the idea of someone observing or finding out about her purging, and she promised herself that she would try with all her might to limit the practice to home. It was not easy to do, but for the most part, she was able to keep her bingeing and purging out of the workplace.

That is not to say that Rita's problems totally escaped the notice of people at work. Coworkers were increasingly able to tell that something was amiss, and some began to piece things together. Kate, a 22-year-old server and friend, was one such individual.

Working under Rita in the restaurant for the past year, Kate had developed a cordial relationship with her manager. Although the two of them were not close friends outside of work, they had gone to an occasional movie or out to a bar together. In recent months, however, Kate noticed that Rita had become more distant and withdrawn at work, and she became concerned for her coworker's well-being. "I always knew that she wasn't the happiest person in the world and that she was certainly unhappy about not having any boyfriends," Kate later told another manager at the restaurant.

People with bulimia nervosa are more likely than other people to be diagnosed with comorbid depressive disorders and/or anxiety disorders. Approximately 30 percent of people with bulimia struggle with a problem with substance use (particularly alcohol or stimulant use) (APA, 2013).

Of course, that was true of a lot of people, so at first I didn't give it much thought. However, after a while I started to notice a troubling pattern in Rita. She would be very cheerful and friendly—for her—when I'd first arrive for my shift around 11:30 A.M., but as the day wore on her mood would turn distant and sour. From about 3:00 onward, she would hardly talk to me or anyone else, and she often seemed to be staring into space as though she was thinking about something far away.

Not long after this started Rita stopped making plans to see me outside of work. Since we didn't get together all that often, at first it didn't seem that unusual. She was always "busy," too busy to spend time with me outside of the restaurant. A couple of times, I asked her what she was so busy with. Not that I was prying, but I was curious about what she was up to, since I really didn't think she had anything going on besides work. But when I would ask her, she would suddenly seem nervous and say something like, "Oh, just a few things I'm working on. Stuff for friends, you know."

I didn't know, but her tone made it clear to me that I shouldn't pry further. After about 2 months of this, it was apparent that she didn't want to spend any time with me outside of work. She never had any time to get together. And if I said, "Well, we really should find time to get together soon," she would brush the whole issue aside. Her moodiness at work was getting worse, too, and I wasn't the only one who noticed it. Of course, we all knew that she's not the most jovial of managers, but now she seemed totally distant and nervous at work. And she always was in a tremendous hurry to get out of the restaurant at the end of the day. I kept wondering what was going on in her personal life—what was she so desperate to get to after work—and why she wanted to shut me out of her life altogether.

Her appearance was also suffering. She seemed to be gaining some weight, nothing too alarming. But the way she carried the extra weight was a bit disturbing. Her face, especially around the eyes, seemed kind of puffy, like she wasn't getting enough sleep. Her eyes were also red. It looked as if some extreme upset or unhappiness was showing in her face. She also seemed very tired at work. I knew something was wrong, but I was afraid of asking her what was going on.

Finally, I decided that I was worried enough about her to go ahead and ask what was going wrong, regardless of what her reaction was. It seemed more important than maintaining our friendship. So I just asked one day, "Rita, I can tell that you're very upset about something. You seem like you're very unhappy and secretive all the time, and frankly you don't look very healthy. Is there something that I should know about? Or something you'd like to get off your chest? You know, I do consider you a friend, whatever you think of me, and I do care about you."

She just looked at me very coldly and said, "I don't know what you're talking about. You have some tables to bus." But her coldness led me to believe that she knew very well what I was talking about. Then I noticed that her weight, while generally on the increase, seemed to be going up and down every few days. I started to suspect that there was some kind of eating disorder going on. Of course, I'm no expert, but I had a feeling that maybe she was so depressed about something that she'd taken to binge eating or something. I knew that this was dangerous, but what could I do? She was uninterested in pursuing our friendship or in responding appreciatively to any offers of support. Eventually, her responses to me became downright nasty. So finally I decided that I had no choice but to wash my hands of the whole situation and stop trying to lend my hand. I had done what I could.

Americans spend more than \$60 billion each year on weight-reduction products and services (Marketdata Enterprises Inc., 2011).

Rita in Treatment: Gaining Real Control

After 6 months of bingeing, Rita found that she was falling further and further behind. As the binges and snacking had become more regular, she gradually gained 10 pounds, ballooning, as she called it, from 123 pounds to 133 pounds. She had never been this heavy before, and she felt desperate to lose the weight. All the purging, dieting, and exercise were adding up to nothing.

Rita was also becoming increasingly worried that she might resort to more extreme measures, such as purging at work, to lose weight. Ironically, her only temporary relief from these anxieties was achieved through bingeing. But after the binge and purge were over, Rita would often find herself sobbing. Overwhelmed, she contacted a behavior therapy program for weight management at a nearby medical center. There she was directed to Dr. Francine Heston, a psychologist with expertise in the treatment of eating disorders.

During her first interview with Rita, Dr. Heston concluded that the 26-year-old woman's eating behavior and related attitudes about food and weight fit the DSM-5 criteria for a diagnosis of bulimia nervosa. First, the client had recurrent episodes of binge eating, over which she felt little or no control. Second, she engaged in inappropriate compensatory behavior in response to the binges—mainly purging and occasional fasting, but some inappropriate exercising as well. Finally, Rita's self-concept was largely influenced by her body shape and weight.

Most therapists tend to use a combination of approaches—primarily cognitive and behavioral—to treat persons with this disorder, and Dr. Heston was no exception. Her treatment program had two main components: (a) changing the patient's bingeing and compensatory behaviors; and (b) changing the patient's distorted attitudes about weight and shape and any other thinking patterns that might cause distress and hence lead to bingeing. Her techniques included educating patients about their eating disorder; helping them perform more appropriate weighing and eating behaviors; teaching them how to control binges and eliminate purges; and leading them, through cognitive therapy, to identify dysfunctional ways of thinking and to develop more accurate cognitions.

Dr. Heston's combination of cognitive and behavioral therapies for bulimia nervosa is similar to the successful approach developed by Fairburn (2008).

Session 1 Rita framed her problem mainly in terms of the bingeing. She stated that the binges were increasing in frequency and were causing her to gain weight. What was most upsetting, she didn't seem to have any control over the binges at this point. Her weight was inching up and she felt helpless to stop it.

Dr. Heston listened sympathetically and expressed optimism that Rita's problem could be solved. She then showed the client a diagram that depicted a model of bulimia nervosa (Figure 9-1), explaining to Rita that although bingeing was her main complaint, it was really just one element in a system of interconnected parts. That is, the bingeing was the result of such elements as unpleasant emotions, concerns about shape and weight, and strict dieting. Furthermore, in a vicious cycle, the bingeing was also helping to intensify these other parts of the system. Similarly, it was both causing and being caused by purging, another element in the system. To stop a bingeing pattern, treatment had to bring about changes in all of the system's elements. It could not focus on bingeing alone.

Dr. Heston then outlined the treatment approach. First, she explained that certain steps usually help to reduce the urge to binge. Chief among these is structuring eating in a manner that keeps physical and behavioral deprivation to a minimum. In addition, the therapist noted, it is usually helpful to develop certain measures for heading off binges should the urge arise. Finally—and this is where Dr. Heston felt it advisable to tread lightly initially—it is usually helpful with this kind of problem to become less preoccupied with eating and weight matters. She explained that when people have a problem with binges, it is sometimes because such matters have assumed a greater role in the person's thinking than is desirable.

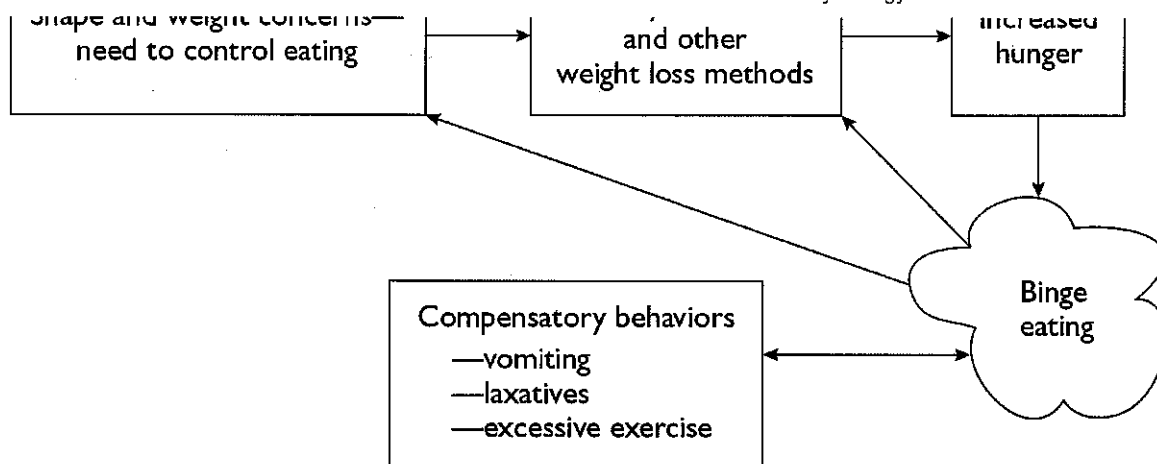


Figure 9-1
Cognitive-behavioral theory of the maintenance of bulimia nervosa

The psychologist also told Rita that she would like her to start keeping track of her eating and related stresses. Dr. Heston allowed Rita to choose whichever method felt most comfortable to her: using one of the apps that she recommended, keeping detailed notes in her phone, or writing everything down on a record form which she could then scan and email to her. Rita expressed some reluctance about such record keeping. She explained that she had tried keeping records of her eating in the past and had not found it helpful. If anything, it had increased her focus on her eating. Dr. Heston acknowledged that Rita’s past record keeping might not have been helpful, but suggested that it would be used more constructively now. Now the record keeping would be part of an overall strategy, and clinical experience showed that it was quite important. It would allow the therapist to understand Rita’s eating better and help the young woman make appropriate changes.

Dr. Heston did acknowledge that, as Rita suspected, the record keeping might initially increase her preoccupation with her eating and weight but said that such increases would be temporary. Over time the client would become less focused on the whole problem. Rita agreed to download the recommended app and give it a try for the coming week.

Session 2 Rita’s food records indicated that during the week, she had binged on 3 evenings after work. Each consisted of a cheeseburger meal followed by some cookies or cake; then, later in the evening, a pint or two of ice cream. Rita always purged afterward. During the day, her eating was severely restricted; on one of the days she was virtually fasting, consuming only no-calorie beverages (coffee, tea, diet soda) before surrendering to several large cookies in the late afternoon. On the 3 postbinge days, Rita reported skipping lunch and later having an apple and a couple of rice cakes before once again surrendering to high-calorie snacks. On days when she followed her “normal” weight-watching diet, her total calorie intake was around 800, about half the requirement for someone of Rita’s weight and activity level. In contrast, on binge days, Rita was consuming 4,000 to 5,000 calories.

P. 142

Dr. Heston did not discuss the specific calorie values with Rita, knowing that it can be counterproductive for patients with bulimia to monitor calories too closely. It creates a dieting mentality that the treatment is trying to discourage. Instead, the psychologist simply noted that soon they would begin the process of trying to fashion a more regular eating pattern for Rita, one that might lower some of her urges to binge.

They spent most of the session reviewing basic facts about weight and eating. Dr. Heston explained that it would be important for Rita to recognize first that her current weight of 133 was not considered excessive according to standard criteria and second that the deprivation needed to maintain the very low weight of 121, her “ideal” weight, could in fact lead to physically overpowering food cravings.

The weight of people with bulimia nervosa is typically within a normal to overweight range (i.e., body mass index [BMI] between 18.5 and 29.9) (APA, 2013).

Rita said she understood that 121 was on the low side but voiced strong reservations about accepting anything higher, particularly 133, as a weight for her. Dr. Heston suggested that there was no need to decide on an appropriate body weight for Rita now only to recognize that her assumptions about proper body

an appropriate body weight for that person, only to recognize that her assumptions about proper body weight might call for some reexamination sooner or later.

The psychologist then recommended that the client stop weighing herself more than once per week, explaining that frequent weighing was fueling Rita's preoccupation with her weight. Moreover, frequent weighing gives false feedback, as day-to-day scale fluctuations often reflect water retention or a particular state of the excretion cycle, rather than true weight gain or loss based on body fat. Rita replied that this would be a big change for her, but on the other hand, she liked the idea of not being a slave to the scale.

Dr. Heston made one additional recommendation, that Rita stop skipping lunch at work, a habit that she had developed. The therapist said she understood Rita's motivation—concern about weight gain—but explained that skipping meals ultimately produces overeating.

p. 143

Research has found that normal subjects on very restrictive diets develop a tendency to binge. For example, after participating in a very low calorie weight loss program, 62 percent of the subjects, who had not previously been binge eaters, reported binge-eating episodes (Teich & Agras, 1993). Similar results have been found in animal studies; they appear to be related to increased stress as a result of caloric restriction (Pankevich, Teegarden, Hedin, Jensen, & Bale, 2010).

- Rita:** I just don't see how I can do what you're proposing. If I don't skip some meals, I'll turn into a blimp. As it is, I've gained 10 pounds in the past 6 months. The only thing that is keeping me from gaining another 10 is skipping lunch now and then. Wouldn't it make more sense for you to tell me to stop bingeing?
- Dr. Heston:** Yes, I could tell you to stop bingeing. But bingeing is probably the thing that you have the least control over right now. Instead, it's better to focus on something that you have more control over, such as whether you eat lunch or not. I know you feel that skipping lunch is helping you to maintain your weight, but skipping meals actually produces the urge to snack or binge. Not skipping meals will eventually help you to stop overeating.
- Rita:** It makes me nervous to think of eating lunch every day.
- Dr. Heston:** I know this will take some getting used to. But let's try it out this week, and we'll review how you feel about it next time.
- Rita:** OK, I'll try it.

Dr. Heston closed by giving Rita three main instructions for the week: (a) continue to keep the food records, (b) weigh herself only once, and (c) eat lunch every day.

Session 3 Rita's records indicated that she had had two binge nights during the preceding week. As instructed, she had made an effort to eat a lunch every day, which for her, was still the "diet" meal: for example, half a sandwich of dry tuna on diet bread. In addition, the client had limited weighing herself to only once during the week. Dr. Heston asked how Rita felt making these changes.

- Rita:** To tell you the truth, it's making me very nervous. I feel I must be gaining weight. Not only am I still snacking and bingeing, but I've added regular lunches.
- Dr. Heston:** What does the scale say?
- Rita:** 132 pounds.
- Dr. Heston:** So your weight is basically the same. Even if it were higher, it wouldn't mean that you were necessarily gaining weight. As we've discussed, one week's weight reading doesn't tell much about the overall trend.
- Rita:** Well, it just feels wrong not to skip lunch occasionally.
- Dr. Heston:** I know how difficult this must have been, and I appreciate the effort you've made. However, you will eventually benefit from this change. I'm afraid, though, that what I'm going to ask you to do next will not be any easier. However, I think you're ready for it, and it's important that we keep moving forward.
- Rita:** Don't tell me you want me to start eating even more!
- Dr. Heston:** Yes. That's exactly it. As we discussed in the beginning, your calorie intake on your so-called normal days is too restricted and is therefore producing binges. You need to start consuming more calories in the course of your regular meals.
- Rita:** But how do I do it? I have no idea what else to eat. I've been eating this way for so long.
- Dr. Heston:** One way is to match your eating to what others eat, perhaps even take your cue from friends, coworkers, or even recipe books. Right now you seem to be having half a sandwich for lunch. As you probably know, most people eat the whole sandwich; therefore, I'd encourage you to do the same. For breakfast, most people have some cereal, fruit, or eggs in addition to toast and juice, so you could add that as well.
- Rita:** I guess I could try it.

p. 144

Most cases of bulimia nervosa begin after a period of dieting.

Session 4 Rita reported having made the suggested meal changes, adding cereal to her breakfast and eating a whole sandwich for lunch, although complaining that eating the whole sandwich made her feel fat for the rest of the afternoon. Dr. Heston praised the client for these changes and reminded her that there was a difference between feeling fat and actually gaining body fat. The psychologist suggested that Rita relabel the feeling that she got after a regular meal as feeling full, which has nothing to do with a true weight gain.

Rita's food records during the week indicated two episodes that the client labeled as binges, each consisting of two slices of pizza and a pint of ice cream. This amount of food was less than in her past binges, yet she still described them this way because of the frame of mind she had been in at the time: She was focused only on the eating and afterward felt the usual guilt and shame. And she purged afterward. Dr. Heston observed that nevertheless, eating somewhat more during the day had seemed to promote less ravenous eating in the evening.

Individuals with bulimia nervosa are more likely than other people to have symptoms of depression, including sadness, low self-esteem, shame, pessimism, and errors in logic (Burney & Irwin, 2000; Paxton & Diggins, 1997).

The psychologist now suggested a two-pronged approach, in which Rita would further normalize her meals and would also develop some strategies for eliminating binges at night. With respect to meals, Dr. Heston observed that Rita was still limiting herself to a diet frozen dinner in the evening. She suggested that instead she start to have a regular dinner: meat with rice or potatoes, plus a vegetable. It had been a while since Rita had prepared a regular dinner, and so the client was concerned that the sheer effort might force her back to the frozen meals. Thus the therapist suggested that she at least eat conventional frozen dinners, rather than the dietetic ones.

Next, Rita and Dr. Heston discussed some measures for avoiding binges, should the urge arise. First, the psychologist advised that she plan an evening activity at least 3 nights a week: a movie, a dinner out, or a moderate exercise class. Second, Rita should buy all of the food for the week in one or two shopping trips, preferably on the weekend; she should shop from a list and go to the store on a full stomach. Third, Rita should change her route home from work so as to bypass the stores in which her binge foods were usually purchased.

Finally, Dr. Heston said she thought the time was right for Rita to start refraining from purging. The client's better eating habits had already reduced the severity of her binges, and so she was better off just accepting the full caloric consequences of those binges, as opposed to purging. The psychologist emphasized that purging was actually helping to produce bingeing by making Rita feel that she could protect herself from the consequences of a binge. In other words, knowing she could purge, she was feeling freer to binge. Rejecting purging, on the other hand, would help Rita to try to control her bingeing. Dr. Heston also pointed out that if Rita retained the calories from the binge, she would be less likely to feel deprived afterward, thus reducing the need to binge later.

Vomiting fails to prevent the absorption of at least half the calories consumed during a binge (Garner et al., 1985; Wooley & Wooley, 1985).

Rita expressed agreement with the goal of not purging, saying it made her feel disgusting. But once again she was concerned about gaining weight. Dr. Heston reminded the client that the proposed measures did not, according to experience, cause people to gain weight. That is, the increased calories that might result occasionally from not purging would be offset over time by a reduction in overeating. This could be verified by keeping track of Rita's weight. Rita said she would do her best not to purge.

Session 5 Rita reported that she had followed the new meal plan, eating a regular breakfast, a whole sandwich for lunch, and on most nights, a complete dinner—sometimes frozen, sometimes a meal she prepared. Snacks consisted of fruit and rice cakes. Also, as advised, the client had scheduled activities for herself on several nights.

Still, there were two episodes that Rita described as binges: a pint of ice cream on one night and a couple of large chocolate doughnuts on another night. The quantities of these "binges" were not really extraordinary—it now appeared that her more regular meals were holding down her cravings—but Rita

considered them intolerable, and she purged on both occasions.

She said that she had decided to purge because she just felt so fat after eating those foods. Still, she asserted, “I really want to stop purging,” and she asked for another chance to try during the coming week. Dr. Heston encouraged the client to try again but asked that she bring some so-called bad foods to the next session. The psychologist explained that they could do a practice exercise in which Rita would eat the foods with Dr. Heston and then practice tolerating the feeling of fullness.

Session 6 Rita reported having purged after two episodes of “overeating” at home in the evening. In one case, she purged two large chocolate chip cookies that she had bought in a gourmet shop; in another, she purged two pieces of chocolate cake. She had intended not to do any purging this week, but once she ate those foods and felt as if she had gained weight, she couldn’t stand it.

p. 146

Most cases of bulimia nervosa begin in adolescence or young adulthood (most often at age 15 to 19 years) (Smink, van Hoeken, & Hoek, 2012).

Dr. Heston asked the client whether she had brought any “bad” foods, as advised. Rita at first stated that she had forgotten, but then admitted that she had deliberately not brought the foods in the hope of avoiding the eating exercise. The psychologist, having anticipated this complication, informed Rita that she had brought some chocolate doughnuts to the session herself. The client reluctantly agreed to do the eating-without-purging exercise during the session. She said she might as well get it over with, as it appeared she could not do the exercise on her own right now.

Dr. Heston brought out two large chocolate doughnuts and suggested that they each eat one. Rita balked, saying she hadn’t expected the doughnuts to be so large, and she asked whether she could just eat half. The psychologist explained that the exercise would be of no value if Rita restricted her eating to an amount that felt safe. “I know,” Rita replied, “but I’m afraid of gaining weight.”

Dr. Heston then asked Rita to estimate how much weight she would gain by eating the doughnut. “I don’t know; 2 pounds?” she guessed. In response, the psychologist gave Rita some facts on eating and weight gain. First, the doughnuts themselves did not weigh more than 3 ounces each; so ingesting one of them could not increase her weight by more than 3 ounces. Moreover, like all foods, some of the doughnuts’ weight reflected their water content, which would be excreted eventually; most of the rest would be burned off in the natural course of events. Dr. Heston suggested they conduct an experiment in which the client would weigh herself on the office scale just prior to eating the doughnut and then immediately afterward.

Rita agreed to eat the doughnut, first weighing herself on the office scale; her weight was 132. She then ate her doughnut slowly, as if taking a bitter herb, but at the same time she admitted that she liked it. After finishing, the young woman remarked that she felt really fat and had a strong desire to purge. The psychologist suggested that she return to the scale. Rita discovered that her weight did not show any increase. Dr. Heston used the finding to make the point that feeling fat after eating and actually being fat or gaining weight are not the same. The therapist also noted that sometimes eating a large quantity of food will indeed produce a considerable weight gain immediately afterward, but most of this gain is water and will be excreted eventually. In order to get used to this, however, Rita would have to stop purging.

The behavioral technique that requires clients to confront their fears by eating taboo foods to show that eating can be harmless and even constructive is similar to the exposure and response prevention therapy used in cases of obsessive-compulsive disorder (Steinglass et al., 2012).

For the remainder of the session, Rita and Dr. Heston focused on other matters, reviewing Rita’s meal plan, binge control strategies, and evening activities. All three areas seemed to be going smoothly. At the end of the session, the psychologist asked Rita how she felt about having eaten the doughnut. The client replied that she still felt fat, but not as much as before. She said it had been a long time since she had let such a feeling stand without purging afterward. Dr. Heston repeated the importance of Rita’s not purging after she left the office or undertaking any other compensatory measures. The young woman indicated she thought she could comply.

p. 147

Finally, the psychologist asked Rita what the prospects were of her refraining from all purging during the coming week, should she get the “fat” feeling after eating. Rita replied that she thought the prospects were better now. If she could keep this doughnut down for the rest of the night, she thought the experience would help her resist purging on future occasions.

- Rita:** Well, I used to weigh less—that's evidence—but I suppose you would say I used to be too thin. How about the fact that my love life is nonexistent? I haven't had a date in months.
- Dr. Heston:** What was your love life like when you weighed 121 pounds?
- Rita:** Not that great either, I suppose. People don't want to go out with me because I'm so miserable more than because I'm fat.
- Dr. Heston:** But you still believe you're fat.
- Rita:** Well, I guess I'm not actually obese. I just look heavy at this weight.

p. 149

As many as half of elementary school girls have tried to lose weight, and 61 percent of middle school girls are currently dieting (Hill, 2006).

This discussion seemed to shift Rita's view of her weight slightly: She moved from declaring she was fat to thinking that maybe she just looked heavy. Still, Dr. Heston felt that her client's thoughts had not yet shifted far enough. It was critical that she arrive at a more neutral view of her weight.

Thus, the psychologist asked Rita to consider all the ways in which her current behavior differed from the way she had behaved at 121 pounds. Rita noted that at her current weight she tended to: (a) wear a bulky sweater or jacket at the office, (b) check her body shape for extended periods in a full-length mirror before leaving the apartment, (c) wear concealing clothing at her gym, (d) avoid swimming, (e) spend most of her time alone in her office at work, and (f) rarely accept dates.

Dr. Heston explained that these actions were actually all serving to strengthen Rita's belief that her weight was terrible. The therapist thus suggested behavioral exercises to help Rita change such behaviors, and they agreed to devise the first set of exercises at the next session.

Sessions 12 to 15 Rita and Dr. Heston devoted the next four sessions to planning and carrying out behavioral exposure exercises and cognitive reinterpretation exercises to help eliminate Rita's fear and avoidance of various activities. In these exercises, Dr. Heston systematically guided her client to perform and reinterpret those activities that, according to the previous week's list, Rita had been avoiding or eliminating from her life.

Research indicates that individuals with bulimia nervosa are extremely focused on weight matters and virtually define their self-worth in these terms (Fairburn et al., 2003; Fairburn, 2008).

The first exercise was for the young woman to remove her sweater at work and venture around the restaurant for a minimum of 1 hour—later 2 hours—each day. When she carried out the plan initially, Rita felt enormous anxiety. As instructed, the client recorded her negative thoughts and then tried to refute them in writing. In one instance, for example, Terry, a “slim” coworker, had seen Rita and had given her a critical look. Rita's first impression was that Terry must be thinking that she had grown fat. As part of her written exercise, Rita also considered contrary evidence—for example, that Terry had not actually said anything about her appearance. Rita then produced an alternative interpretation of her interaction with the coworker—namely, that Terry's so-called critical look could just as easily have been a meaningless glance or a reflection of some other concern.

p. 150

At first, such counterarguments didn't feel very convincing to Rita. But after continued written thought exercises, coupled with the behavioral exposure, her thinking and feelings started to shift. In fact, after 2 weeks of not concealing her shape, Rita was no longer feeling self-conscious in this activity.

The client's anxiety was also reduced following repeated exposure to other activities, coupled with the thought exercise. By the 15th session, she no longer felt the need to wear concealing clothing at work or at the gym, and she was leaving her apartment with just a quick glance at the mirror. Rita had even gone swimming several times at her gym and felt pretty comfortable doing so by the fourth venture.

- Rita:** By doing these things over and over I'm getting used to them. I'm back to doing normal things in spite of my weight. People don't really seem to view me any differently. More likely, they simply don't care one way or the other. I guess I need to consider why I care so much.
- Dr. Heston:** What thoughts do you have?
- Rita:** I guess I've been equating my weight with some sense of worthiness, like I don't deserve anything unless I'm thin. Where do you think I got that?
- Dr. Heston:** I don't know, but obviously our culture promotes that concept to some extent. In any case, the important

thing is to recognize that you've fallen prey to that idea and need to counteract it.

Rita: I think these exercises have helped to some extent. But I can't help feeling that being successful or worthwhile is tied to being thinner.

Dr. Heston had Rita consider arguments both for and against the belief that thinness is a sign of success. Rita concluded that being thinner might be desirable from an appearance standpoint but that it did not represent any form of merit. To further this, the psychologist had Rita carry out a new exercise. The client agreed to survey the appearance of women whom she considered attractive or successful, particularly at the gym and the swimming pool. Rita was to attend specifically to the flaws in body shape they might each possess. Such observations would help her recognize that she might have given her own flaws in body shape unfair emphasis.

Sessions 16 and 17 By the 16th session, Rita had been almost binge-free and purge-free for 8 weeks. She was continuing to eat regular meals, including formerly forbidden foods. And she had eliminated most of the behaviors that had been inspired by anxiety over her weight and shape.

By the 17th session, the client had spent 2 weeks carrying out the exercise of noticing other women's body shapes. She noted that the exercise was very different from the way she normally directed her attention to other women. Usually, she would focus on their most flattering attributes. If one had a small waist, she would focus on that; if another had toned legs, she would look at them, all the while making unfavorable comparisons with herself. With this new exercise, she was forcing herself to do the opposite, and it was quite an eye-opener. She learned, for example, that Terry, the coworker Rita had always considered the epitome of thinness, was actually quite thick in the calves and had large feet. Similarly, she noted that a woman at the pool, one Rita had consistently admired, had dimpled thighs. These observations, in combination with the ongoing behavioral exposure exercises, were helping her to see her own situation in a different light. She was starting to consider that maybe her dissatisfaction with 132 pounds was overblown. Although she still would prefer to weigh 120 to 125, she was now thinking of postponing any further weight loss; the effort might not justify the result.

Dr. Heston was very supportive, suggesting that it would be best to put the whole weight loss question on hold for at least several months. This would give Rita time to lock in her more realistic views on weight and body shape. Then the client could consider the question of weight reduction objectively.

Sessions 18 to 22 The next five sessions were devoted to the consolidation of Rita's behavior and attitude changes and to relapse prevention. During this period, she had been instructed to stop her daily food records and behavioral exercises. In addition, the sessions were spread more and more apart, to give the client practice in functioning for longer periods without supervision. All continued to go very well, and treatment ended after the 22nd session. In the final session, Dr. Heston advised Rita to keep on the lookout for any signs of slipping into old habits: for example, skipping meals, avoiding many foods, excessive weighing, and of course purging. If she were to detect any such signs, she was to counteract them right away; if this proved too hard to do on her own, she was to contact Dr. Heston for booster sessions.

Cognitive-behavioral treatments for bulimia nervosa produce significant improvement in 40 percent to 60 percent of clients. Differences in outcome statistics depend on when the treatment outcome is assessed and how it is defined (reduction in symptoms versus complete remission) (Mitchell et al., 2011; Poulson et al., 2014).

Epilogue

Six months after the final session, Rita contacted Dr. Heston. She said that she had successfully maintained her progress, although there had been one occasion, about a month after the treatment ended, when she purged. Rita said she regretted the purging immediately afterward and had been purge-free for the past 5 months. She continued to follow a regular meal plan, although she had to admit that her old dieting habits were often tempting. Her weight remained about the same throughout this period.

Her main reason for getting in touch, she told Dr. Heston, was that she was not doing well in her dating relationships: on more than a few occasions, she had driven off guys by being too critical and moody. She asked Dr. Heston for the name of a therapist who was experienced in interpersonal problems. The psychologist suggested a colleague and asked Rita to continue to keep in touch. The therapist was of course

not pleased that her former client was still struggling with relationships, but she was very pleased indeed with her continued success in the realm of eating and appearance. With those problems under control, Rita's chances of addressing her interpersonal problems, or any other problems for that matter, were greatly improved.

One follow-up study indicated that patients who received either cognitive-behavioral therapy or exposure with response prevention treatment for bulimia continued to improve over a 5-year period. By 5 years after treatment, 83 percent of individuals no longer met the criteria for bulimia nervosa, but only 36 percent had been abstinent from bulimic behaviors for the past year (McIntosh, Carter, Bulik, Frampton, & Joyce, 2011).

Assessment Questions

1. What was the concern that Rita had, along with many others who have bulimia nervosa?
2. Describe Rita's eating plan, including her "good" and "bad" eating habits. Do you think her diet plan was reasonable?
3. When did Rita's eating behaviors begin to become pathological?
4. What prompted Rita to decide to purge after her binges?
5. What was Rita's nonpurging activity to lose weight?
6. According to the information provided in the text, how do individuals with bulimia generally perceive their body size compared to control subjects?
7. How did Rita's eating disorder affect her relationships with her coworkers?
8. Why did Rita finally decide to seek treatment?
9. Describe the cognitive-behavioral model of the maintenance of bulimia nervosa.
10. Dr. Heston asked Rita to keep a record of her eating behaviors. What did Dr. Heston see as advantages to this exercise, and why was Rita reluctant to participate in this assignment?
11. At what age do most cases of bulimia begin?
12. Describe at least two medical problems that may occur with continued bingeing and purging.
13. From reading about Rita, list all of the reasons you think were factored in to why she developed bulimia nervosa.
14. For clients seeking treatment for bulimia, what are the statistics regarding improvement in behaviors?

Cognitive-Behavioral Therapy for Bulimia Nervosa and Atypical Bulimic Nervosa: Effectiveness in Clinical Settings

Glenn Waller, DPhil^{1*}
Emma Gray, DClInPsych²
Hendrik Hinrichsen, DClInPsych³
Victoria Mountford, DClInPsy^{4,5}
Rachel Lawson, MA⁶
Eloise Patient, BSc⁷

ABSTRACT

Objective: The efficacy of cognitive-behavioral therapy (CBT) for bulimic disorders has been established in research trials. This study examined whether that efficacy can be translated into effectiveness in routine clinical practice.

Method: Seventy-eight adult women with bulimic disorders (bulimia nervosa and atypical bulimia nervosa) undertook individual CBT, with few exclusion criteria and a treatment protocol based on evidence-based approaches, utilizing individualized formulations. Patients completed measures of eating behaviors, eating attitudes, and depression pre- and post-treatment. Eight patients dropped out. The mean number of sessions attended was 19.2.

Results: No pretreatment features predicted drop-out. Treatment outcome was similar whether using treatment com-

pleter or intent to treat analyses. Approximately 50% of patients were in remission by the end of treatment. There were significant improvements in mood, eating attitudes, and eating behaviors. Reductions in bingeing and vomiting were comparable to efficacy trials.

Discussion: The improvements in this "real-world" trial of CBT for adults with bulimic disorders mirrored those from large, funded research trials, though the conclusions that can be reached are inevitably limited by the nature of the trial (e.g., lack of control group and therapy validation). © 2013 Wiley Periodicals, Inc.

Keywords: bulimia nervosa; atypical bulimic disorders; cognitive-behavioral therapy; effectiveness

(*Int J Eat Disord* 2014; 47:13–17)

Introduction

There is substantial evidence that cognitive-behavioral therapy (CBT) is efficacious in the treatment of adult women with bulimia nervosa and atypical bulimic disorders.^{1–7} However, that evi-

dence has come from funded research studies. Such findings are not necessarily generalizable to the wider range of clinical settings, due to factors such as the exclusion of comorbidity or atypical cases, treatment being delivered under highly stringent conditions, and the need to adhere strictly to protocols. Thus, such evidence of efficacy in the research environment needs to be translated into evidence of effectiveness in less specialized clinical practice, in order to avoid clinicians ignoring the evidence as being irrelevant to their client group.⁸ This attitude might explain the common omission of core techniques when delivering CBT for adults with eating disorders⁹ and the fact that only a minority of clinicians report using manuals when working with bulimia nervosa.¹⁰ There is evidence for the clinical applicability of research-based CBT for anxiety and depression.^{11,12} However, that is not the case in the eating disorders. Therefore, this study considered whether the efficacy of CBT for bulimic disorders (as shown by existing research trials) can be translated into clinical effectiveness in routine clinical settings, where none of the exclusion- and protocol-based constraints outlined above apply.

Accepted 27 July 2013

*Correspondence to: Glenn Waller, Clinical Psychology Unit, Department of Psychology, University of Sheffield, Western Bank, Sheffield S10 2TN, UK. E-mail: g.waller@sheffield.ac.uk

¹ Clinical Psychology Unit, Department of Psychology, University of Sheffield, Sheffield, Sheffield, England, United Kingdom

² British CBT and Counselling Service, London, England, United Kingdom

³ Sutton and Merton IAPT Service, South West London and St. George's Mental Health NHS Trust, Springfield University Hospital, London, England, United Kingdom

⁴ Eating Disorders Section, Institute of Psychiatry, King's College London, London, England, United Kingdom

⁵ Eating Disorders Service, South London and Maudsley NHS Foundation Trust, Denmark Hill, London, England, United Kingdom

⁶ South Island Eating Disorders Service, Christchurch, New Zealand

⁷ North Staffordshire Wellbeing Service, Newcastle-under-Lyme, Staffordshire, England, United Kingdom

Published online 1 September 2013 in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/eat.22181

© 2013 Wiley Periodicals, Inc.

Method

Participants

All patients were treated in a publically-funded outpatient eating disorder service in the UK. The only exclusion criteria were psychosis, learning difficulties, or an inability to work in English. The participants in the trial were a case series of those patients with bulimic disorders who opted to undertake CBT when assessed and when treatment options were discussed. A small number of patients opted to undertake a psychodynamic therapy, while another group attended for assessment but declined or failed to attend for treatment. However, the numbers in these groups were not recorded. Therefore, this is a study of those who opted to begin CBT, rather than all who attended the clinic or who had bulimic disorders. None were excluded from the trial due to missing data (see below).

The sample entering treatment were 78 adult women with bulimic disorders: 55 with bulimia nervosa (52 purging subtype; three nonpurging subtype) and 23 with EDNOS involving bulimic behaviors (nine with subthreshold bulimia nervosa, involving bingeing and purging at least once per week over three months; 10 with binge eating disorder; and four with purging in the absence of bingeing). None were in the anorexic weight range. All were assessed using a semistructured interview protocol,¹³ and diagnosed using DSM-IV criteria.¹⁴ The mean age of the sample at assessment was 27.8 years (SD = 7.11) and their mean body mass index (BMI) was 22.1 (SD = 3.26).

A minority of the bulimic sample ($N = 9$) were receiving SSRI antidepressants (stabilized prior to treatment and maintained throughout the treatment period) and a small number had occasional dietetic reviews, but none were receiving any other form of treatment in parallel with CBT. A high proportion had some comorbidity (major depressive disorder: 44% of cases; obsessive-compulsive disorder: 26%; other anxiety disorders: 32%; and substance misuse: 23%). The levels for anxiety and depressive disorders are higher than in some efficacy studies,³ but comparable for substance misuse.

Measures

Height and weight were measured objectively. Diaries were used to assess frequency of bingeing and vomiting. The women also completed measures of eating pathology and depression at the beginning and end of treatment.

Eating Disorders Inventory. The EDI¹⁵ is a self-report measure of eating and related attitudes. Scores are responsive to changes over treatment. Scores on the eating-related scales (Drive for thinness; Bulimia; Body

dissatisfaction) were summed to provide an overall score reflecting eating attitudes.

Beck Depression Inventory. The BDI¹⁶ is a self-report measure of depressive symptoms, with good psychometric properties.

Treatment. This version of CBT¹³ is based on techniques employed in evidence-based approaches to bulimia nervosa (1,2,4). In keeping with those approaches, this programme includes: individualized formulation, taking into account different maintaining factors across cases (e.g., nutritional and/or emotional drivers for bingeing); agenda setting; homework; change in diet (particularly to improve carbohydrate intake); diary-keeping; exposure; behavioral experiments; cognitive restructuring; and surveys. Comorbidity was usually addressed once the core eating disorder symptoms were substantially reduced, unless there was evidence that the patient was not changing eating behaviors in the early part of CBT.

The clinicians were all clinical psychologists with at least four years of experience in delivering CBT for eating disorders, and were supervised routinely on these cases (individually and in groups). The usual assumption was that there would be around 20 one-hour CBT sessions. However, this was reduced if the patient improved rapidly, and was increased if the patient had substantial comorbidity (such increases were reviewed by the team after each additional set of 10 sessions). Whatever the duration, behavioral change was maintained as a focus, along with changes in mood and cognitions. The mean number of sessions delivered per patient was 19.2 (SD = 12.4; range = 7–80). Three follow-up sessions were offered in addition.

Patients were regarded as in remission if they no longer had a diagnosis of any eating disorder by the end of treatment (including being free of bulimic behaviors for at least a month prior to the last session, and not having pathological concerns about eating, weight, and shape). This latter criterion was established through clinical review. Drop-out was defined as the patient ending treatment before the agreed termination point (defined by patient and clinician), whether early or late in treatment.

Data Analysis

Binary logistic regression was used to identify any pre-treatment factors that predicted drop-out.¹⁷ Change was measured in three ways—as the proportion of patients ceasing individual and all bulimic behaviors (objective binge-eating, vomiting, and laxative abuse) by the end of treatment; as the proportion of patients who changed or no longer met diagnostic criteria at the end of treatment (remission); and as the dimensional differences in frequencies of behaviors, BMI level, eating attitudes, and depression. As the data were not sufficiently normal, changes in symptom levels were tested using Wilcoxon

tests. This final analysis is done as both a treatment completer analysis and an intent-to-treat analysis (carrying forward the most recent data to substitute for missing data where a patient dropped out). At the end of treatment, there were nine missing EDI scores and 12 missing BDI scores. These were treated as absent for the completer analysis.

Results

Predictors of Attrition

Eight of the 78 patients dropped out over the course of treatment. This rate is similar to that reported in protocol-driven research studies.^{3,4,18} Binary logistic regression was used to determine whether drop-out was related to pretreatment age, BMI, frequency of bingeing or vomiting, EDI scores, or BDI scores. The overall model was not significant ($X^2 = 11.5$, $df = 6$, $p = 0.075$), and no individual variable approached significance ($p > 0.16$ in all cases). Therefore, no identified pretreatment variables predicted attrition from CBT.

Cessation of Bulimic Behaviors Following CBT

Among the completer group, 66 engaged in objective bingeing at the beginning of treatment, and 28 at the end of treatment (abstinent = 58%), 51 engaged in vomiting at the beginning and 25 at the end (abstinent = 51%), and 17 engaged in laxative abuse at the beginning and three at the end (abstinent = 82%). 56% were free of all bingeing and purging behaviors by the end of treatment (all patients had at least one of these behaviors at the start of treatment). These reductions are comparable with those reported across treatment in clinical trials.³

Change in Diagnosis Following CBT

Table 1 shows shifts in diagnoses from beginning to end of CBT. Overall, 37 (52.9%) of the 70 patients who reached the end of treatment were diagnosis-free by that point (no bulimic behaviors, alongside

normalized eating attitudes). Assuming no such changes among the eight patients who had dropped out, this represents 47.4% of the 78 patients who started CBT. This remission rate is similar to that found in comparable research.²⁻⁴

Diagnostic group at the outset of treatment was not broadly predictive of change in diagnosis. However, those with purging disorder showed a mixture of positive and negative outcomes, suggesting that this form of CBT is more suitable for those who binge-eat.

Dimensional Change in Symptoms Following CBT

Table 2 shows changes across therapy in body mass index, frequencies of bulimic behaviors, eating attitudes, and depression. This is done separately for treatment completers ($N = 70$) and as an intent to treat analysis ($N = 78$). Regardless of the form of analysis, there were significant changes on all of these measures, with a small increase in BMI and larger reductions in objective binges, vomiting, eating attitudes, and depressed mood. The effect sizes ($tau = Z/\sqrt{[N]}$) for these changes varied between medium and large in both sets of analyses. The frequency of objective bingeing fell by 59% in the treatment completer analysis (intent to treat: 64%), and vomiting levels fell by 72% (intent to treat: 65%). These findings are similar to levels of change reported.⁷

Discussion

Research trials have demonstrated the efficacy of CBT for bulimic disorders. However, clinicians commonly regard such findings as irrelevant to their practice.⁶ Therefore, this study tested whether those findings can be translated into evidence of effectiveness in healthcare settings where there are few exclusion criteria and where the implementation of the therapy is less intensively scrutinized. It

TABLE 1. Diagnostic outcomes at end of treatment, among those completing CBT ($N = 70$)

Diagnostic Group at Beginning of Treatment	Diagnostic Group at End of Treatment					
	No Eating Disorder	Bulimia nervosa		Atypical Bulimia Nervosa	EDNOS	
		Purging Subtype	Nonpurging Subtype		Binge Eating Disorder	Purging Disorder
Bulimia nervosa						
Purging subtype ($N = 46$)	22 (47.8%)	22 (47.8%)	0	2 (4.3%)	0	0
Nonpurging subtype ($N = 1$)	1 (100%)	0	0	0	0	0
EDNOS						
Atypical bulimia nervosa ($N = 9$)	5 (55.6%)	0	0	4 (44.4%)	0	0
Binge eating disorder ($N = 10$)	8 (80.0%)	0	0	0	2 (20.0%)	0
Purging disorder ($N = 4$)	1 (25.0%)	0	1 (25.0%)	1 (25.0%)	0	1 (25.0%)

TABLE 2. Symptom change across treatment among those completing CBT ($N = 70$) and using intent-to-treat analysis ($N = 78$)

Type of Analysis	Treatment Completers								Intent-to-Treat					
	Beginning of Treatment		End of Treatment		Wilcoxon Test		Effect Size <i>Tau</i>	Beginning of Treatment		End of Treatment		Wilcoxon Test		Effect Size <i>Tau</i>
	Mean	SD	Mean	SD	Z	P		Mean	SD	Mean	SD	Z	P	
Point in Treatment														
Symptom*														
Body mass index	22.8	(3.58)	23.3	(3.80)	2.98	.003	0.36	22.1	(3.26)	22.8	(3.67)	3.61	.001	0.41
Objective binges per week	4.45	(6.51)	1.84	(5.07)	3.25	.001	0.39	5.51	(9.65)	1.98	(4.86)	4.93	.001	0.56
Vomiting per week	5.31	(7.96)	1.49	(3.28)	2.93	.003	0.35	6.88	(10.1)	2.41	(5.29)	2.83	.005	0.32
Eating disorders inventory	46.0	(15.4)	26.3	(21.0)	2.39	.02	0.29	37.6	(21.8)	24.1	(22.5)	2.58	.01	0.29
Beck depression inventory	22.7	(9.95)	12.2	(11.0)	4.78	.001	0.57	21.9	(9.46)	12.1	(10.5)	4.59	.001	0.52

*No missing data for body mass index, objective binges, or vomiting episodes, and no missing start of treatment data for other variables. Missing data for eating disorders Inventory and Beck depression inventory mean that completer $N = 61$ and 58, respectively.

also included atypical bulimic cases. The findings were broadly comparable to those found in research trials—the drop-out rate was low (10.3%), the remission rate was ~50%, and there were substantial reductions in levels of pathological eating attitudes and depression. In short, these findings demonstrate that this form of CBT for bulimia nervosa¹³ is effective in treating the eating disorders in “real-life” clinical settings. However, it is important to note that these results were achieved by clinicians within a specialist eating disorder clinic, who had relatively high levels of training, experience, and supervision. Its effectiveness in other settings or as delivered by less experienced clinicians remains to be demonstrated. It is also necessary to note that this was an uncontrolled trial, with no validation checks (beyond routine supervision) to confirm that the therapy delivered actually was CBT. While these features are inevitable consequences of delivering treatments in real life settings, they limit the strength of any conclusions that can be reached regarding the effectiveness of CBT.

Several forms of CBT for adults with eating disorders have been shown to be efficacious to a comparable degree in research settings.^{1–4} Each shares themes with the form used here—particularly the foci on individualized formulation, exposure, behavioral change, recording, and cognitive restructuring. Therefore, these findings suggest that other evidence-based forms of CBT for the bulimic disorders might have similar levels of effectiveness in purely clinical settings, although the lack of a control group in studies of this sort makes it impossible to conclude definitively that it is elements of CBT that are responsible for the positive outcomes seen. Clinicians could be encouraged to use existing manualized forms of CBT for bulimia nervosa more than they currently do,^{9,10} on the grounds that these relatively structured forms of treatment for the eating

disorders can be as effective in everyday clinical settings as they are efficacious in research settings. Further work is needed to determine whether these effects are maintained in the long term, as they are in research trials. Such research would also benefit from a wider range of measures of eating pathology (e.g., body image, other purging behaviors), as the measures used here were relatively crude, and might have omitted key indices of change. It should also consider the potential role of factors such as duration of disorder, previous treatment experiences, and socio-economic status, to allow for comparison with existing and future clinical trials. Finally, it will be important to determine whether the efficacies of other therapies for bulimic disorders (e.g., interpersonal psychotherapy; dialectical behavior therapy) are matched by their effectiveness.

References

1. Bulik CM, Sullivan PF, Carter FA, McIntosh VV, Joyce PR. Predictors of rapid and sustained response to cognitive-behavioral therapy for bulimia nervosa. *Int J Eat Disord* 1999;26:137–144.
2. Fairburn CG, Norman PA, Welch SL, O'Connor ME, Doll HA, Peveler RC. A prospective outcome study in bulimia nervosa and the long-term effects of three psychological treatments. *Arch Gen Psychiatry* 1995;52:304–312.
3. Fairburn CG, Cooper Z, Doll HA, O'Connor ME, Bohn K, Hawker DM, et al. Transdiagnostic cognitive-behavioral therapy for patients with eating disorders: A two-site trial with 60-week follow-up. *Am J Psychiatry* 2009;166:311–319.
4. Ghaderi A. Does individualization matter? A randomized trial of standardized (focused) versus individualized (broad) cognitive behavior therapy for bulimia nervosa. *Behav Res Ther* 2006;44:273–288.
5. National Institute for Clinical Excellence. Eating Disorders: Core Interventions in the Treatment and Management of Anorexia Nervosa, Bulimia Nervosa and Related Eating Disorders (Clinical Guideline 9). London, UK: National Collaborating Centre for Mental Health, 2004.
6. Shapiro JR, Berkman ND, Brownley KA, Sedway JA, Lohr KN, Bulik CM. Bulimia nervosa treatment: A systematic review of randomized controlled trials. *Int J Eat Disord* 2007;40:321–336.
7. Vitousek KB. The current status of cognitive behavioural models of anorexia nervosa and bulimia nervosa. In: Salkovskis PM, editor. *Frontiers of Cognitive Therapy*. New York, NY: Guilford, 1996, pp. 383–418.

8. Tobin DL, Banker JD, Weisberg L, Bowers W. I know what you did last summer (and it was not CBT): A factor analytic model of international psychotherapeutic practice in the eating disorders. *Int J Eat Disord* 2007;40:754–757.
9. Waller G, Stringer H, Meyer C. What cognitive-behavioral techniques do therapists report using when delivering cognitive-behavioral therapy for the eating disorders. *J Consult Clin Psychol* 2012;80:171–175.
10. Wallace LM, von Ranson KM. Treatment manuals: Use in the treatment of bulimia nervosa. *Behav Res Ther* 2011;49:815–820.
11. Persons JB, Bostram A, Bertagnolli A. Results of randomized controlled trials of cognitive therapy for depression generalize to private practice. *Cogn Ther Res* 1999;23:535–548.
12. Persons JB, Roberts NA, Zalecki CA, Brechwald WAG. Naturalistic outcome of case formulation-driven cognitive-behavior therapy for anxious depressed outpatients. *Behav Res Ther* 2006;44:1041–1051.
13. Waller G, Corstorphine E, Cordery H, Hinrichsen H, Lawson R, Mountford V, et al. *Cognitive-Behavioral Therapy for the Eating Disorders: A Comprehensive Treatment Guide*. Cambridge, UK: Cambridge University Press, 2007.
14. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed. Washington, DC: American Psychiatric Association, 1994.
15. Garner DM. *Eating Disorder Inventory-2*. Odessa, FL: Psychological Assessment Resources, 1991.
16. Beck AT, Steer RA. *Beck Depression Inventory manual*. San Antonio, TX: The Psychological Corporation, 1987.
17. Carter O, Pannekoek L, Fursland A, Allen KL, Lampard AM, Byrne SM. Increased wait-list time predicts dropout from outpatient enhanced cognitive behaviour therapy (CBT-E) for eating disorders. *Behav Res Ther* 2012;50:487–492.
18. Mitchell JE. A review of the controlled trials of psychotherapy for bulimia nervosa. *J Psychosom Res* 1991;35:23–31.

Copyright of International Journal of Eating Disorders is the property of John Wiley & Sons, Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.

RESEARCH ARTICLE

Open Access

Internet-based interventions for eating disorders in adults: a systematic review

Ruth Dölemeyer^{1,2*}, Annemarie Tietjen¹, Anette Kersting^{1,2} and Birgit Wagner^{1,2}

Abstract

Background: This systematic review evaluates the efficacy of internet-based interventions for the treatment of different eating disorders in adults.

Method: A search for peer reviewed journal articles detailing Randomised Control Trials (RCT) and Controlled Trials (CT) addressing participants with eating disorders aged at least 16 was completed in the electronic databases Web of Science, PsycInfo and PubMed. The quality of the included articles was assessed, results were reviewed and effect sizes and corresponding confidence intervals were calculated.

Results: Eight studies, including a total of N = 609 participants, fulfilled the selection criteria and were included. The majority of treatments applied in these studies were based on CBT principles. Six studies described guided self-help interventions that showed significant symptom reduction in terms of primary and secondary outcomes regarding eating behaviour and abstinence rates. These studies produced significant medium to high effect sizes both within and between the groups after utilisation of guided self-help programs or a self-help book backed up with supportive e-mails. The two remaining studies utilised a specific writing task or e-mail therapy that did not follow a structured treatment program. Here, no significant effects could be found. Treatment dropout rates ranged from 9% to 47.2%. Furthermore, reductions in other symptoms, for example depression and anxiety, and an increase in quality of life were found by four studies.

Conclusions: Overall, the results support the value of internet-based interventions that use guided self-help to tackle eating disorders, but further research is needed due to the heterogeneity of the studies.

Keywords: Eating disorders, Internet-based intervention, Systematic review, Binge eating disorder, Bulimia nervosa, EDNOS

Background

Eating disorders are associated with both high social and personal costs for the person concerned. Most people with eating disorders do not access effective treatment [1] and show a preference for low-threshold interventions rather than conventional health care provided for mental health problems [2,3]. For this reason, an increasing number of internet-based interventions addressing eating disorders have been developed to facilitate access to effective treatments for these individuals. Many of these internet-based programs have been developed with the aim of preventing eating disorders [3-11], but more recently

there has also been an increase in interest in internet-based interventions targeting people who already suffer from a diagnosed eating disorder [12-19]. While internet-based interventions addressing bulimia nervosa [14-19], binge eating [12,13,16], EDNOS (eating disorder not otherwise specified) [17,19] and body dissatisfaction [20,21] have been conducted, there is still a relatively low number of investigations into the application of internet-based interventions for anorexia nervosa. It can be assumed that this is due to the fact that the weight loss accompanying anorexia nervosa can be life threatening, making it the eating disorder with the highest mortality rate [22].

In general, internet-based interventions have several advantages, for example the lack of geographic boundaries, enabling widespread dissemination of treatment [23]. Furthermore, internet-based interventions are cost-effective

* Correspondence: ruth.doelemeyer@medizin.uni-leipzig.de

¹Department of Psychosomatic Medicine and Psychotherapy, University of Leipzig, Semmelweisstr. 10, Leipzig 04103, Germany

²Leipzig University Medical Center, IFB AdiposityDiseases, Leipzig, Germany

[24] and provide greater user control, flexibility, open access and anonymity [25]. They are therefore especially relevant for patients who might not otherwise access treatment for reasons such as fear of social stigma or lack of easy access to a treatment centre.

While a number of reviews and meta-analyses of internet-based interventions have been published, e.g. for depression [26,27], depression and anxiety [28-31], obesity [32] and the prevention of eating disorders [3], there is, to our knowledge, no review examining the efficacy of internet-based interventions for the treatment of existing eating disorders. Thus, with this systematic review we aim to give an overview of the different forms of internet-based interventions that have been applied for people suffering from an eating disorder.

The following key questions are addressed by this systematic review:

1. What is the evidence for the value of internet-based interventions for the treatment of eating disorders? To answer this question, effect sizes and corresponding confidence intervals were calculated for within and between group analyses. Additionally, rates of abstinence and dropout were taken into account.
2. What factors are associated with these treatment effects (e.g. duration of treatment, degree of therapist involvement)?

To answer these questions only analyses of quantitative data were taken into account; qualitative data were not considered at this time.

Methods

Before starting with literature search for the systematic review, inclusion criteria and methods of analysis were specified. These criteria have not been documented in an official review protocol.

Study eligibility

Studies were selected and included in the present review according to five criteria: (1) publication in a peer reviewed journal, (2) presence of a controlled design, (3) inclusion of the internet as at least one mode of delivery for treatment or self-help, (4) inclusion of participants aged at least 16 years and suffering from an eating disorder and (5) presence of changed eating behaviour as a primary outcome. Studies were excluded if they (1) addressed prevention of eating disorders, (2) addressed weight loss programs, or (3) did not include subjects suffering from a diagnosed eating disorder.

Study selection

For the selection of studies, Web of Science, PsycInfo and PubMed were electronically searched for articles

published or e-published before November 2012 by combining the terms "random" OR "controlled" with the terms "eating disorder", "anorexia", "bulimia", "binge eating" OR "EDNOS", the terms "online", "internet", "computer", "email" OR "web" and the terms "intervention", "therapy" "self-help", "treatment" OR "program" in titles or abstracts. No limitation was made regarding the language of articles. The titles and abstracts of the 460 articles identified by the initial search were screened to determine their relevance to the review. Articles that did not meet inclusion criteria were excluded at this stage, whereas the full text of potentially relevant studies was examined. Furthermore, the reference lists from retrieved articles were checked for additional relevant literature. The selection of articles was independently performed by the primary and secondary author of this review.

Data extraction

Data extraction was conducted independently by two authors, consulting a third reviewer in the case of discrepancy in the documentation of study features. Variables extracted included the authors of the study, title and publication year, information regarding number, diagnosis, gender and age of participants, characteristics of intervention and control groups (e.g. frequency of contact, kind of control group), duration of treatments, time points of assessment, and measures used for outcome assessment. The rates of study dropouts (regarding percent of missing post-treatment assessments over all groups) and treatment dropouts (regarding percent of participants not finishing treatment in the intervention group) were also noted, as were rates of abstinence. Furthermore, information necessary for evaluating methodological quality was extracted.

Assessment of methodological quality

Methodological quality was assessed using an 11-item list oriented on a scale developed by van den Berg et al. [33]. Studies were rated independently by the first author and checked by the second author. Disagreements were discussed until consensus was reached. Each item was rated as *yes*, *no*, or *unknown*. A total methodological quality score (ranging from 0–11) was calculated by summing up all *yes* items. Studies were rated as having good methodological quality if they met at least two-thirds of the criteria (eight or more items).

Assessing the effects of internet-based interventions for eating disorders

To answer the key questions of this review, key eating disorder-related symptoms (e.g. bingeing and purging) and rates of abstinence were considered as primary outcomes. As secondary outcomes, results of key questionnaires were considered. Included were questionnaires

that are commonly used for the assessment of symptoms related to eating disorders, resulting in examination of (1) EDE interview and the Eating Disorder Examination Questionnaire (EDE-Q) [34], a semi-structured interview and its self-report version, measuring the core psychopathology of eating disorders; and (2) the Eating Disorder Inventory (EDI) and Eating Disorder Inventory 2 (EDI-2) [35-38], which were developed to assess psychological characteristics of patients with eating disorders. In studies that did not include one of these questionnaires, (3) the Bulimia Investigatory Test Edinburgh (BITE) [39], a self-rating measure assessing symptoms of BN, was considered.

If a study measured outcomes across several time points, the first time point after completion of the intervention was selected for comparison of studies. For studies that included more than one control group, the one with the least contact was selected for comparison. Since statistical significance of t-tests depends upon sample size, level of significance, tests used and other variables of study design, effect sizes (ES, Hedges' *g*) were calculated by the authors, according to Hedges [40]. For effect size calculation, intention to treat (ITT) data was used. Where ITT data were not available, ITT effects were estimated, assuming a zero effect for study dropouts. If no data for calculating or estimating effect sizes were available, results of ANOVAs or effect sizes reported in the studies were used. An ES of less than 0.5 was interpreted as small, 0.5 to 0.8 as medium and greater than 0.8 as large [41]. Additionally, 95% confidence intervals (CIs) were calculated according to Hedges and Olkin [40]. Furthermore, where follow-up data were available, stability of the effects was reported and additional outcomes (e.g. depression, anxiety or quality of life) were considered. Here, the (1) Beck Depression Inventory (BDI) [42], or BDI-II [43], (2) the Hospital Anxiety and Depression Scale (HADS) [44,45] or (3) the Montgomery Åsberg Depression Scale Self-assessment (MADRS) [46] were used to assess symptoms of depression and anxiety. To assess quality of life, (1) the short form of the Impact of Weight on Quality of Life (IWQOL-Lite) [47], (2) the Satisfaction with Life Scale (SWLS) [48] and (3) the WHO Quality of Life Questionnaire (WHOQOL-Bref) [49] were included in the review.

Because the studies differ in terms of the eating disorders addressed, characteristics of participants and internet-based programs applied, no meta-analysis was performed but results will be presented for each study and conclusion will be drawn.

Results

Study selection

The search and selection process for articles is illustrated in Figure 1. A total of 651 articles were identified by the

initial search. After removing duplicate articles ($n = 191$) and irrelevant studies ($n = 436$), 24 articles were retained for further consideration. Of these, 16 articles were excluded as they addressed prevention of eating disorders or presented data from participants who did not fulfil a diagnosis of an eating disorder ($n = 6$), they did not use a controlled design ($n = 5$), they were addressing relapse prevention ($n = 1$) or they did not use internet-based therapy as the mode of delivery ($n = 4$). Screening the reference lists from retrieved articles did not lead to the inclusion of any additional relevant literature → Figure 1.

Methodological quality

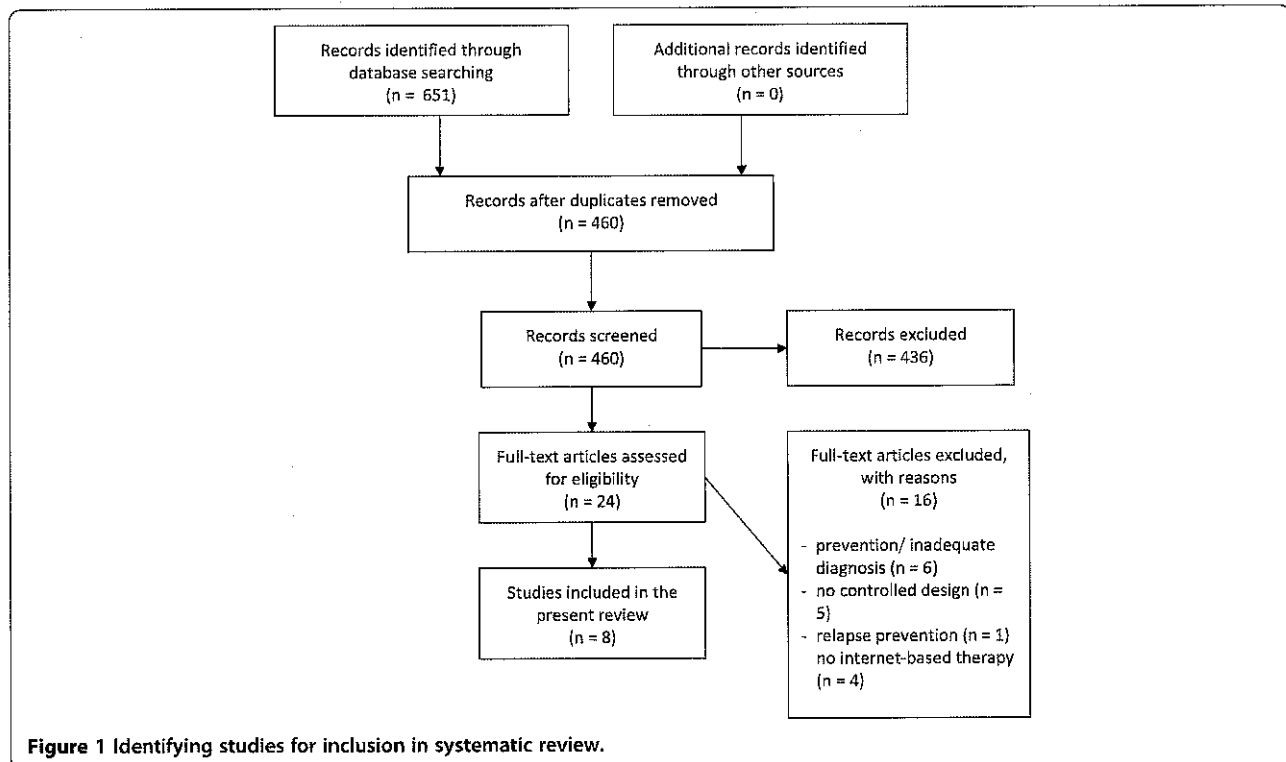
In Table 1 the results of the methodological quality assessment are described. Of the eight studies included, five [12,16-19] were rated as having good methodological quality, whereas two studies [13,15] just missed this rating by meeting seven rather than eight out of the 11 criteria. One study [14] failed to report the eligible criteria and timing of outcome measurements between groups were not comparable.

Methods

Tables 2 and 3 provide an overview of the methods used in the studies, detailing the intervention, control group and participant characteristics as well as the diagnosis addressed by each study. Furthermore, the time points of assessments are listed and rates of abstinence and dropout are reported. The eight included studies all were published in English and described different interventions using the internet as a mode for delivery of treatment or self-help support. Three of the studies focused on bulimia nervosa [14,15,18], two on full or sub-threshold criteria for binge eating disorder [12,13], while the remaining three studies addressed more than one kind of eating disorder [16,17,19]. Eating disorders were diagnosed according to DSM-IV criteria in all but two studies [15,18]. While six of the studies were randomised controlled trials [12,15-19], two studies were controlled but not randomised [13,14]. Of the studies included in this review, two did not assess the stability of effects [14,17] while in the remaining studies the time frame for follow-up ranged between 8 weeks [15] and 12 months after end of the treatment [18].

Participants' characteristics

The included studies involved a total of $N = 609$ participants suffering from serious eating issues or diagnosed eating disorders, with sample sizes ranging from 42 [13] to 97 [17]. About 97% of the total sample was female. Five of the studies included both genders [15-19] while three only addressed women [12-14]. The average age of participants ranged between 23.7 and 44.6 years.



Intervention characteristics

Cognitive behavioural therapy (CBT) or modules of CBT formed the basis of all but one intervention [15]. This exception involved an expressive writing task that, according to Pennebaker [50], incorporated exploration of the patients' thoughts and emotions. Most of the approaches additionally implemented psychoeducational elements. Treatment programs differed in length, ranging from three days for the shortest [15] up to six months for the two longest [12,13]. In brief, six studies offered the patients a guided self-help intervention [12-14,16,18,19], one utilised a specific writing task [15] and one used e-mail therapy that did not follow a structured treatment program [17]. Five of the six studies that used guided self-help interventions developed and used structured treatment programs [12-14,18,19], while in one study [16] the self-help intervention utilised a book with accompanying tasks and homework. The extent of therapist support or guidance in the various internet-based interventions differed from no support at all [15] to an average of two emails per week over the course of the treatment period [17]. In most studies, an average of one contact per week between coaches and participants was planned.

Control group characteristics

Four studies utilised a comparison group that was a waiting list control group with no professional contact

at all [13,17-19]. In three studies, waiting list control groups received exercises to do while waiting [12,14,16] and two of the studies included an additional control group [17,18]. Finally, the study using the expressive writing task as intervention program [15] did not use a waiting list control group at all, but advised participants in the control group to write about superficial topics, in a factual manner, without exploring thoughts or feelings.

Outcomes

Outcomes related to eating disorders

Table 4 illustrates the effect sizes for primary and secondary outcomes, as well as the corresponding CIs. In two studies [12,18], means and standard deviations for the calculation of effect sizes were available in the form of ITT data, while four studies [13,15,16,19] reported these in terms of completers' data. The remaining two studies did not provide the information required for calculating effect sizes. For one study [14], no standard deviations or test-values were given. Here effect sizes for between groups were taken from reported study results and reported confidence intervals for mean differences were considered. For the other study that did not provide standard deviations [17], F-values were reported but estimation of effect sizes were not possible as the study design included three groups. Here, results

Table 1 Assessment of methodological quality

Items	Study	Ljotsson et al. [16]	Robinson & Serfaty [17]	Johnston et al. [15]	Carrard et al. [12]	Sanchez-Ortiz et al. [19]	Fernandez-Aranda et al. [14]	Carrard et al. [13]	Ruwaard et al. [18]
Methodological quality									
Were the eligible criteria specified?		yes	yes	yes	yes	yes	no	yes	yes
Was the method of randomization described?		yes	yes	no	yes	yes	yes	yes	yes
Were the groups similar at baseline regarding important prognostic indicators?		yes	yes	unknown	yes	yes	yes	yes	yes
Were the index and the control interventions explicitly described?		yes	yes	yes	yes	yes	yes	yes	yes
Was the outcome assessor blinded to the interventions?		Unknown	yes	Unknown	no	yes	Unknown	no	Unknown
Was the dropout rate described and were the characteristics of dropouts compared with the completers?		yes	yes	yes	yes	yes	yes	No (no comparison)	no
Was long-term follow-up in the groups comparable?		no	no	yes	yes	no	no	yes	yes
Was the timing of the outcome measurements in the groups comparable?		yes	yes	yes	yes	yes	no	yes	yes
Was the sample size of each group described by means of a power calculation?		no	yes	yes	yes	yes	no	no	yes
Did the analysis include intention-to-treat analysis?		yes	yes	no	yes	yes	Unknown	no	yes
Were point estimates and measures of variability presented for the primary outcome measures?		yes	Mean but no standard deviation	yes	yes	yes	Mean but no standard deviation	yes	yes

of analyses of variance reported in the study were considered instead.

Primary outcomes

Figure 2 shows effect sizes and corresponding confidence intervals for bingeing and purging. Six of the studies assessed bingeing or purging, while in two studies [15,17] these behaviours were not assessed. Medium to large effect sizes from pre- to post-treatment were found in the intervention group for both bingeing and purging episodes, ranging from 0.75 to 1.05 for binge episodes and from 0.41 to 0.77 for purging. When effect sizes were calculated between groups, however, a significant reduction in the number of binge episodes in the intervention group as compared to the control group was only found in two studies [12,16], with moderate effect sizes. In studies that assessed purging behaviour, no

significant differences in reduction of purging between groups were found, with one exception. One study [16] found a significant reduction in purging behaviour in the intervention group compared to the control group, with a considerably high effect size of 1.63. Sanchez-Ortiz and colleagues [19] additionally assessed frequency of vomiting and found medium-sized effects within the treatment group, while effects were only small when the two groups were compared. In contrast to this, Fernandez-Aranda et al. [14] assessed frequency of vomiting and reported high effect sizes after comparing the two groups.

The definition of abstinence differed between studies and the rates of abstinence in the intervention groups were found to vary widely in the different studies between 22.6% [14] and 45% [13]. While in most studies, abstinence was defined as absence of the relevant eating disorder behaviour (e.g. bingeing or purging) over a

Table 2 Characteristics of treatment programs applied in included studies

Authors	Ljotsson et al. [16]	Robinson & Serfaty [17]	Johnston et al. [15]	Carrard et al. [12]	Sanchez-Ortiz et al. [19]	Fernandez-Aranda et al. [14]	Carrard et al. [13]	Ruwaard et al. [18]
Type of study/ Randomisation	RCT: based on generated random numbers; Stratification procedure was implemented with regard to diagnosis and severity	RCT: randomization was based on generated random numbers	RCT: No exact description was given	RCT: Randomization was based on generated random numbers	RCT: based on generated random numbers; Stratification procedure was implemented with regard to diagnosis and recruitment site	CT: participants were consecutively assigned to either the treatment group or the control group	CT: participants were either offered to take part in the treatment program or asked to participate in the control group during information session for WLT	RCT: randomization was based on generated random numbers
Intervention	Self-help based on CBT using the Swedish translation of the book "Overcoming Binge Eating"	Email therapy based on CBT working on a model of the eating disorder	20 minutes writings on the basis of the Pennebaker task	Guided self-help treatment program consisting of 11 modules based on CBT targeting behavioural and psychological aspects of BED	guided self-help treatment program "Overcoming Bulimia Online" consisting of eight sessions based on CBT	Guided self-help program introducing CBT and psychoeducational concepts in seven sequential steps	Guided self-help program consisting of 11 modules based on CBT targeting behavioural and psychological aspects of BED	Guided self-help program referring to CBT main principles for treatment of BN
Anonymity	No. EDE interview was performed as main assessment	Yes: no interview or face-to-face meeting was conducted	Yes: no interview or face-to-face meeting was conducted	three additional face-to-face evaluations during a year	introduction in a face-to-face meeting or as telephone assessment	No: two face-to-face evaluations with their coaches during therapy	no: three additional face-to-face evaluations	Yes: only an interview with a diagnostician
Lengths	12 weeks	Three months	Three days	Six months	8 to 12 weeks	Four months	Six months	20 weeks
Frequency of contact	One to two email contacts per week	On average two emails per week were expected	No contact at all during therapy	Weekly e-mail contact during the intervention phase; monthly e-mail contact during the follow-up period	Therapists sent emails once every one to two weeks and responded to any email received	Weekly e-mail contact with their coach during intervention phase	Therapists sent weekly e-mails and participants had to write at least one email each week to their coaches	Treatment includes 25 scheduled therapist feedback moments
Number and diagnosis of participants	73 participants with full or sub-threshold Bulimia Nervosa (BN) or Binge Eating Disorder (BED) diagnosis according to DSM-IV; sub-threshold BN was defined as episodes of binge eating and compensatory behaviour at least twice-monthly for the last three months. BED participants needed to have at least two OBEs per month for the last six months	97 participants suffering from BN (n = 36 purging; n = 15 non-purging), BED (n = 26) or EDNOS (n = 20) diagnosis according to DSM-IV	94 participants suffering from BN; Participants were required to score at or above the medium-range cut off for bulimic symptomatology	74 participants suffering from BED (n = 43) or sub-threshold BED (n = 31) diagnosis according to DSM-IV; for sub-threshold BED participants needed to have at least one OBE weekly for the last three months	76 students suffering from BN (n = 39) or EDNOS (n = 37) diagnosis according to DSM-IV; persons suffering from BED were excluded	62 participants suffering from BN purging subtype; diagnosis according to DSM-IV	42 obese participants suffering from BED (n = 21) or sub-threshold BED (n = 21); diagnosis according to DSM-IV; Frequency of binges had to be at least for once a month during the last three months	105 participants suffering from BN symptoms (80% engaged in purging behaviour) A formal diagnosis of BN was not an inclusion criteria. Participants had to report recurrent binge eating, inappropriate weight-control behaviour and elevated concern with body shape and weight

Table 4 Effect sizes and confidence intervals of primary and secondary outcomes

	Ljotsson et al. [16]	Johnston et al. [15]	Carrard et al. [12]	Sanchez-Ortiz et al. [19]	Fernandez-Aranda et al. [14]	Carrard et al. [13]	Ruwaard et al. [18]
Primary outcome							
Binge episodes	$E_{S_{within}}(CI\ 95\%)$ 0.98 (0.58-1.38)	1.05 (0.65-1.45)	0.75 (0.39-1.11)	0.90 (0.40-1.40)	1.05 (0.63-1.47)	0.90 (0.40-1.40)	1.05 (0.63-1.47)
	$E_{S_{between}}(CI\ 95\%)$ 0.52 (0.04-1.00)	0.52 (0.06-0.98)	0.35 (-0.10-0.80)	0.20 (-0.41-0.81)	0.43 (-0.04-0.90)	0.20 (-0.41-0.81)	0.43 (-0.04-0.90)
Purging	$E_{S_{within}}(CI\ 95\%)$ 0.41 (0.06-0.76)	0.56 (0.22-0.90)	0.27 (-0.18-0.72)	0.77 (0.39-1.15)	0.45 (-0.02-0.92)	0.77 (0.39-1.15)	0.45 (-0.02-0.92)
	$E_{S_{between}}(CI\ 95\%)$ 1.63 (1.08-2.18)						
Vomiting	$E_{S_{within}}(CI\ 95\%)$	0.46 (0.12-0.80)		0.78			
	$E_{S_{between}}(CI\ 95\%)$	0.29 (-0.16-0.74)					
Secondary Outcome							
EDE-Q							
Restraint	$E_{S_{within}}(CI\ 95\%)$ 0.32 (-0.02-0.66)	0.47 (0.13-0.81)	1.26 (0.83-1.69)	0.23 (-0.19-0.65)		0.23 (-0.19-0.65)	
	$E_{S_{between}}(CI\ 95\%)$ 0.26 (-0.21-0.73)	0.14 (-0.32-0.60)	0.79 (0.32-1.26)	0.24 (-0.37-0.85)		0.24 (-0.37-0.85)	
Eating concern	$E_{S_{within}}(CI\ 95\%)$ 0.86 (0.47-1.25)	1.05 (0.65-1.45)	0.84 (0.37-1.31)	0.78 (0.30-1.26)		0.78 (0.30-1.26)	
	$E_{S_{between}}(CI\ 95\%)$ 0.99 (0.49-1.49)			0.39 (-0.22-1.00)		0.39 (-0.22-1.00)	
Shape concern	$E_{S_{within}}(CI\ 95\%)$ 0.51 (0.16-0.86)	0.89 (0.51-1.27)	1.02 (0.63-1.41)	1.02 (0.50-1.54)		1.02 (0.50-1.54)	
	$E_{S_{between}}(CI\ 95\%)$ 0.92 (0.42-1.42)	0.28 (-0.18-0.74)	1.05 (0.57-1.53)	0.58 (-0.04-1.20)		0.58 (-0.04-1.20)	
Weight concern	$E_{S_{within}}(CI\ 95\%)$ 0.78 (0.40-1.16)	0.73 (0.37-1.09)	0.79 (0.32-1.26)	1.11 (0.57-1.65)		1.11 (0.57-1.65)	
	$E_{S_{between}}(CI\ 95\%)$ 1.10 (0.59-1.61)			0.18 (-0.43-0.79)		0.18 (-0.43-0.79)	
Total	$E_{S_{within}}(CI\ 95\%)$ 0.71 (0.34-1.08)	1.18 (0.76-1.60)	1.21 (0.79-1.63)	0.79 (0.31-1.27)		0.79 (0.31-1.27)	1.18 (0.75-1.61)
	$E_{S_{between}}(CI\ 95\%)$ 0.96 (0.46-1.46)	0.45 (-0.01-0.91)	1.09 (0.61-1.57)	0.32 (-0.29-0.93)		0.32 (-0.29-0.93)	0.50 (0.02-0.98)
EDI (-2)							
Drive for thinness	$E_{S_{within}}(CI\ 95\%)$ 0.55 (0.19-0.91)	0.62 (0.27-0.97)					
	$E_{S_{between}}(CI\ 95\%)$ 0.99 (0.49-1.49)	0.48 (0.02-0.94)		0.25			
Body dissatisfaction	$E_{S_{within}}(CI\ 95\%)$ 0.39 (0.05-0.73)	0.60 (0.25-0.95)					
	$E_{S_{between}}(CI\ 95\%)$ 0.76 (0.27-1.25)	0.05 (-0.41-0.51)		0.16			
Interceptive awareness	$E_{S_{within}}(CI\ 95\%)$ 0.70 (0.33-1.07)	0.53 (0.18-0.88)					
	$E_{S_{between}}(CI\ 95\%)$ 0.88 (0.39-1.37)	0.46 (0.00-0.92)		0.03			
Bulimia	$E_{S_{within}}(CI\ 95\%)$ 0.79 (0.41-1.17)	1.56 (1.08-2.04)					
	$E_{S_{between}}(CI\ 95\%)$ 0.94 (0.44-1.44)	1.08 (0.59-1.57)		0.54			
Interpersonal distrust	$E_{S_{within}}(CI\ 95\%)$ 0.02 (-0.31-0.35)	0.21 (-0.12-0.54)					
	$E_{S_{between}}(CI\ 95\%)$ 0.00 (-0.47-0.47)	0.17 (-0.29-0.63)		0.32			
Ineffectiveness	$E_{S_{within}}(CI\ 95\%)$ 0.47 (0.12-0.82)	0.36 (0.03-0.69)					
	$E_{S_{between}}(CI\ 95\%)$ 0.57 (0.09-1.05)	0.33 (-0.13-0.79)		0.05			

Table 4 Effect sizes and confidence intervals of primary and secondary outcomes (Continued)

Maturity fears	$ES_{within}(CI\ 95\%)$	0.23 (-0.10-0.56)	
	$ES_{between}(CI\ 95\%)$	0.15 (-0.31-0.61)	0.63
Perfectionism	$ES_{within}(CI\ 95\%)$	0.21 (-0.13-0.55)	
	$ES_{between}(CI\ 95\%)$	0.22 (-0.25-0.69)	0.13
Impulse regulation	$ES_{within}(CI\ 95\%)$	0.51 (0.17-0.85)	
	$ES_{between}(CI\ 95\%)$	0.31 (-0.15-0.77)	
Social insecurity	$ES_{within}(CI\ 95\%)$	0.64 (0.29-0.99)	
	$ES_{between}(CI\ 95\%)$	0.27 (-0.19-0.73)	
Total	$ES_{between}(CI\ 95\%)$		0.37
BITE			
Severity	$ES_{within}(CI\ 95\%)$	0.14 (-0.14-0.42)	
	$ES_{between}(CI\ 95\%)$	0.28 (-0.13-0.69)	
Symptom	$ES_{within}(CI\ 95\%)$	0.10 (-0.18-0.38)	
	$ES_{between}(CI\ 95\%)$	0.03 (-0.37-0.43)	
Total	$ES_{within}(CI\ 95\%)$	0.14 (-0.14-0.42)	
	$ES_{between}(CI\ 95\%)$	0.13 (-0.28-0.54)	1.03

ES Effect Sizes calculated according to Hedges [40], *CI* Confidence intervals were calculated using formulas according to Hedges and Olkin [40]. Boldface data show CIs not covering zero. *EDE-Q* Eating Disorder Questionnaire, *EDI-2* Eating Disorder Inventory - 2, *BITE* Bulimia Investigatory Test Edinburgh.

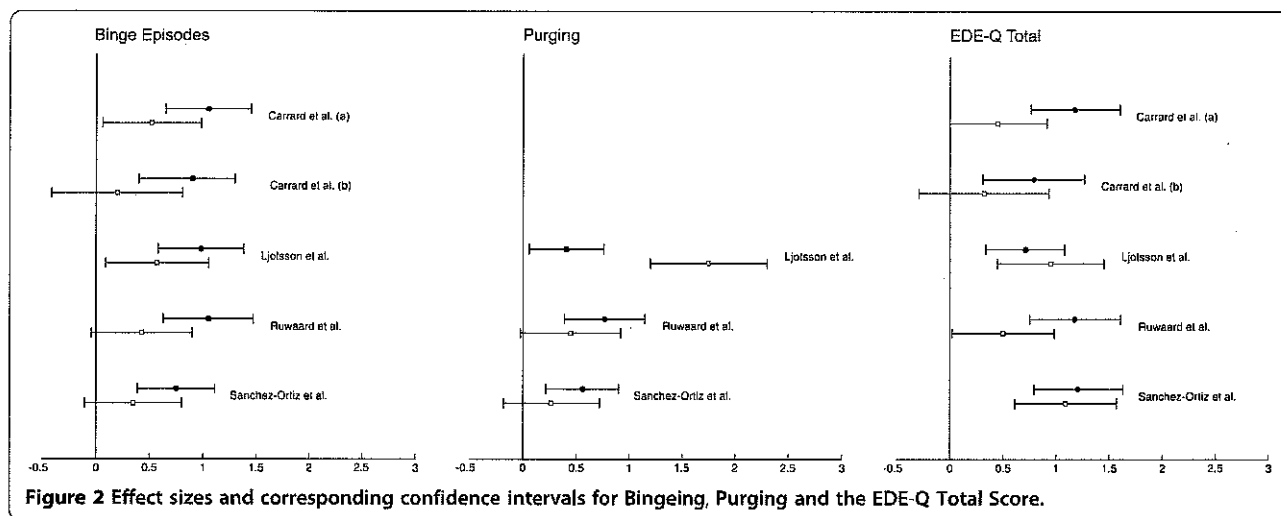


Figure 2 Effect sizes and corresponding confidence intervals for Bingeing, Purging and the EDE-Q Total Score.

defined time period, in two studies abstinence was defined as no longer falling within the clinical range of the BITE [15] or no longer fulfilling criteria for an eating disorder according to the DSM-IV [17]. All of the studies found a higher rate of abstinence in the intervention group compared to the control group with lowest contact, but this difference was only tested for significance in four studies [12,13,17,18]. All of these analyses reached statistical significance.

Secondary outcomes

Figure 2 also shows effect sizes and corresponding confidence intervals for EDE-Q total. Regarding secondary outcomes, as assessed with the questionnaires described above, the included studies found high effects from pre- to post-treatment in the EDE-Q total, as assessed in five studies [12,13,16,18,19]. Positive results of the intervention were also found for the subscales of the EDE-Q, where assessed. When groups were compared for EDE-Q total, moderate to high effect sizes were found in three studies [16,18,19], while in the two studies of Carrard and colleagues [12,13] these effect sizes were only small to moderate, as were the results of the EDE-Q subscales. In the remaining two studies assessing EDE-Q subscales [16,19], effect sizes between groups were high with the one exception in the "Restraint" subscale, that was only significant in the study conducted by Sanchez-Ortiz et al. [19]. In two studies [12,16] the EDI-2 was implemented in addition to the EDE-Q to aid treatment outcome assessment. In both studies medium to high effects of the intervention were found from pre- to post-treatment for most of the subscales, reinforcing the results reported for the EDE-Q. These studies also showed medium to high effect sizes on some subscales of the EDI-2 when groups were compared. Additionally, in the study by Fernandez-Aranda [14], the effect sizes reported were small to medium. In two of the studies – those conducted

by Robinson and Serfaty [17] and Johnston et al. [15] – eating disorder symptoms were not assessed with either the EDE-Q or the EDI but with the Bulimia Investigatory Test Edinburgh (BITE) [39]. No significant treatment effects either within or between the treatment groups could be shown in the study of Johnston et al. [15]. In the study of Robinson and Serfaty [17], only changes within the whole group of participants were examined. For this sample, no significant changes in questionnaire scores were found.

Dropout rates

As authors defined dropout differently between studies, treatment dropouts were considered separately from study dropouts and rates are displayed in Table 3. Treatment dropouts were intervention group participants who did not complete the treatment, whereas study dropouts were participants from either group who did not fill out the post-treatment assessment. While treatment dropout rates were between 9% [13] and 47.2% [17], study dropouts ranged between 2.9% [16] and 37.1% [17]. In this study, no information was given about whether the number of participants, who did not complete treatment, differed from the number of participants, who did not fill out post-assessment, meaning that the treatment dropout we report here is identical to study dropout in the treatment group. In two studies [12,19] treatment dropouts referred to participants who did not use treatment at all or did not finish the first module of treatment.

Stability of results

Of the six studies that included follow-up measures [12,13,15,16,18,19], the one with the 8-week follow-up failed to find stable treatment effects [15]. The remaining five studies found that the results achieved at post-treatment were stable or even improved over the follow-up period.

Additional outcomes

Table 5 gives an overview of the additional results. In two studies [14,18], neither depression nor any other additional outcome was explicitly assessed. All of the remaining studies assessed depression: three [12,13,17] utilising the Beck Depression Inventory (BDI) [42], or

BDI-II [43], two studies [15,19] making use of the Hospital Anxiety and Depression Scale (HADS) [44,45] and one study [16] using the Montgomery Åsberg Depression Scale Self-assessment (MADRS) [46]. Divergent results were found between the studies. Again, in the study by Robinson and Serfaty [17], no information for

Table 5 Effect sizes and confidence intervals of questionnaires regarding additional outcomes

		Ljotsson et al. [16]	Johnston et al. [15]	Carrard et al. [12]	Sanchez-Ortiz et al. [19]	Carrard et al. [13]
Depression						
BDI (-II)	ES _{within} (CI 95%)			0.61 (0.26-0.96)		0.61 (0.15-1.07)
	ES _{between} (CI 95%)			0.37 (-0.09-0.83)		0.80 (0.17-1.43)
HADS	ES _{within} (CI 95%)		0.08 (-0.20-0.36)		2.18 (1.59-2.77)	
	ES _{between} (CI 95%)		0.18 (-0.23-0.59)		0.97 (0.49-1.45)	
MADRS	ES _{within} (CI 95%)	0.78 (0.40-1.16)				
	ES _{between} (CI 95%)	0.76 (0.27-1.14)				
Anxiety						
HADS	ES _{within} (CI 95%)		0.27 (-0.02-0.56)		1.01 (0.62-1.40)	
	ES _{between} (CI 95%)		0.02 (-0.38-0.42)		0.82 (0.33-1.31)	
Quality of life						
<i>IWQOL-Lite</i>						
Physical functioning	ES _{within} (CI 95%)					0.44 (0.00-0.88)
	ES _{between} (CI 95%)					0.37 (-0.24-0.98)
Self-esteem	ES _{within} (CI 95%)					0.55 (0.10-1.00)
	ES _{between} (CI 95%)					0.59 (-0.03-1.21)
Sexual life	ES _{within} (CI 95%)					0.49 (0.05-0.93)
	ES _{between} (CI 95%)					0.84 (0.21-1.47)
Public distress	ES _{within} (CI 95%)					0.52 (0.07-0.97)
	ES _{between} (CI 95%)					0.73 (0.10-1.36)
Work	ES _{within} (CI 95%)					0.43 (-0.01-0.87)
	ES _{between} (CI 95%)					0.94 (0.30-1.58)
Total score	ES _{within} (CI 95%)			0.30 (-0.03-0.63)		0.68 (0.21-1.15)
	ES _{between} (CI 95%)			0.01 (-0.45-0.47)		0.78 (0.15-1.41)
<i>WHOQOL-Bref</i>						
Physical health	ES _{within} (CI 95%)				1.01 (0.62-1.40)	
	ES _{between} (CI 95%)				1.03 (0.55-1.51)	
Psychological health	ES _{within} (CI 95%)				0.77 (0.41-1.13)	
	ES _{between} (CI 95%)				0.80 (0.33-1.27)	
Social	ES _{within} (CI 95%)				0.67 (0.32-1.02)	
	ES _{between} (CI 95%)				0.65 (0.19-1.11)	
Enviromental	ES _{within} (CI 95%)				0.15 (-0.17-0.47)	
	ES _{between} (CI 95%)				0.19 (-0.26-0.64)	
<i>SWLS</i>						
Total	ES _{within} (CI 95%)	0.41 (0.06-0.76)				
	ES _{between} (CI 95%)	0.31 (-0.17-0.79)				

ES Effect Sizes calculated according to Hedges [40], CI Confidence intervals were calculated using formulas according to Hedges and Olkin [40]. Boldface data show CIs not covering zero.

BDI (-II) Beck Depression Inventory, HADS Hospital Anxiety and Depression Scale, MADRS Montgomery Åsberg Depression Scale Self-assessment, SWLS Satisfaction with Life Scale; IWQOL-Lite, Impact of Weight on Quality of Life, WHOQOL-Bref WHO Quality of Life Questionnaire (short form).

calculating effect sizes was available and no significant differences were found for the analysis of variance performed. In terms of effect sizes within the intervention group, four studies found medium to high effect sizes for depression [12,13,16,19], while no effects were found for the three day writing task study by Johnston et al. [15]. For three of the studies [13,16,19], significant differences were also found between the groups. As they applied the HADS, two studies [15,19] were additionally able to assess anxiety as an outcome variable. The study conducted by Johnston et al. [15] did not find effects within or between groups, but in the study by Sanchez-Ortiz et al. [19], reduction of anxiety resulted in high effect sizes both within and between the groups. Quality of life or satisfaction with life were assessed in four studies [12,13,16,19]. Here, medium- to high-sized effects were seen for the intervention group, with exception of one study [12]. These results did not translate to a medium to high between-group effect for the study by Ljotsson et al. [16], however.

Discussion

This review systematically evaluated the efficacy of internet-based treatment programs for different eating disorders in participants aged at least 16, based upon evidence from controlled studies. An article focusing on the effectiveness of cognitive-behavioural guided self help for eating disorders has recently been published [51], but to our knowledge this study is the first review examining the standardized effects of interventions delivered through the internet on participants suffering from different kinds of eating disorders. All studies included in this review were published in the last six years, since 2007, highlighting that this research field is relatively novel. For five of the eight studies included in this review, good methodological quality was noted [12,16-19].

All but one intervention [15] were based on CBT, which emphasizes the suitability of cognitive behavioural methods as a basis for the development of internet-based treatments for eating disorders. Of the seven studies based on CBT, six offered patients a guided self-help intervention [12-14,16,18,19]. Of these, one delivered the self-help intervention by book, with accompanying tasks and homework [16], while the other studies developed and used a structured treatment program. The remaining CBT-based study used e-mail therapy without following a structured treatment program [17]. All studies that were based on CBT principles and provided relevant information to calculate effect sizes found significant reductions of eating disordered behaviour within the intervention groups from pre- to post-treatment for primary outcomes (e.g. bingeing and purging) as well as secondary outcomes. These interventions were also found to be beneficial in comparison to being placed on a waiting list. The findings

applied to the self-help programs implemented over the internet, but also for the self help book intervention with e-mail support and for e-mail-therapy. In summary, the results suggest that a variety of treatments, based on CBT and using the internet, can help to reduce symptoms related to eating disorders such as bulimia nervosa, binge eating and EDNOS.

There was high variance in the rates of abstinence between studies. Interestingly, the three studies with the highest rates of abstinence had the most conservative time criteria. Since these studies included patients suffering from binge eating disorder [12,13,16] results are in line with previous meta-analysis findings from two other studies. In one study, the odds ratios for abstinence rates in a RCT addressing binge eating disorder significantly improved after psychotherapy and structured self-help [52]. A second study compared guided and unguided self-help for binge eating [53], where relatively high remission rates were found for OBEs. These findings can be interpreted with respect to the high spontaneous remission found for binge eating [54]. In this review, benefits of the guided self-help interventions based on CBT were superior to those elicited by the e-mail therapy [17] or the three day writing task [15].

Additionally, effects on secondary outcomes, as assessed by questionnaires, were comparable with those produced by face-to-face therapies. For example, a meta-analysis examining the effects of different treatments for binge eating [52] found medium to high effect sizes for psychotherapy as well as structured self-help, both mainly based on CBT. These results are in line with significant medium to high effect sizes found in the studies included in this review that addressed patients suffering from BED [12,13,16]. Furthermore, a meta-analysis of studies that used CBT in face-to-face treatment for bulimia nervosa found effect sizes ranging from -0.03 to 1.00 for behavioural measures and from 0.26 to 0.98 for cognitive measures [55]. Again, these results are in line with results found in the CBT-based intervention for BN of studies included in the review. Additionally, follow-up examination results indicated that the effects of the treatments did not decrease over time, implying long-term stability of these positive effects of CBT-based guided self-help interventions for eating disorders delivered over the internet. The two studies that did not find significant effects or stable treatment results either within or between groups were those by Johnston et al. [15] and Robinson and Serfaty [17]. Neither study utilized structured self-help based upon CBT principles, instead using e-mail therapy [17] or a writing task [15]. Furthermore, the study by Johnston et al. [15] differed from the other studies in terms of lengths and therapeutic contact, and one could argue that the focus was not the internet as a tool, but rather evaluation of an intervention paradigm which

had not previously been assessed for the treatment of eating disorders.

To further evaluate internet-based interventions for the treatment of eating disorders, dropout rates should be taken into account. The relative numbers of participants who did not finish treatment (treatment dropout) differed between the studies included and were higher in studies that included participants suffering from symptoms of BN [14,16,18,19]. This matches results from face-to-face therapies, where high treatment dropout rates have also been documented. While Garner [56] reported a mean dropout rate of 15.3% in their review of CBT for the treatment of bulimia nervosa, the dropout rates reported in controlled studies are assumed to be an underestimate of the rates in a general clinical setting [57-61]. One possible explanation for the different dropout rates that were found in internet-based interventions of depression and anxiety [62] is the level of anonymity. But, contrary to this finding, no clear connection between anonymity and treatment dropout was seen in the present review. The studies providing anonymity were not necessarily those where high treatment dropout rates were reported. Instead of anonymity, diagnosis seems to be more relevant to dropout rates. So, dropout rates found in the studies addressing exclusively participants who showed (sub-threshold) binge eating behaviour [12,13] were relatively low, at 24.3% and 9%. These dropout rates are in accordance with studies of non-internet-based self-help techniques for those patients [63]. It is hypothesized that patients suffering from binge eating are highly motivated to work on their eating problems due to the association of binge eating with high psychological impairment and related health problems [64,65]. Apart from anonymity and diagnosis, it is worth noting that dropout rates for internet-based interventions in other psychiatric disorders generally differ widely. For instance, Titov and colleagues [66] found a dropout rate of 11% in a trial of clinician-assisted internet-delivered CBT for depression, while Spek et al. [31] reported a dropout rate of 66% for internet-delivered CBT for sub-threshold depression.

In the literature, several different factors (e.g. duration of treatment and amount of contact) have been found to be associated with differences in treatment effects. For example, the influence of therapist support on treatment outcomes for depression was found to be strong [26,27]. Furthermore, guided self-help has been shown to produce larger treatment effects than pure self-help in BED [53,67] and providing guidance might increase both adherence to and the benefits of computerized interventions [68]. Unfortunately, it was not possible to draw conclusions in this review about how much influence the duration of an internet-based intervention or the amount of contact with the coaches has on its efficacy,

since variability of these two factors was limited between studies. When combined with the different kinds of treatments and participants addressed, no clear conclusion can be drawn.

Although the internet-based interventions discussed in this review were not specifically aimed at reducing comorbid symptoms such as depression, anxiety or at increasing quality of life, these can be assumed to be relevant factors for eating disorder patients. Overall results of the present review indicate that depressive symptoms and anxiety can be reduced by internet-based interventions. This is in line with previous data from face-to-face studies [52]. For example in their meta-analysis, Vocks and colleagues found significant but small mean effect sizes for depression after psychotherapy and structured self-help when comparing experimental and control groups. It can be assumed that improvement of eating disorder symptoms might influence depressiveness and symptoms of anxiety. Furthermore, significant treatment effects found in this review indicate that quality of life and satisfaction with life are related to a reduction of eating disorder symptoms.

Limitations

Several limitations of this review have to be addressed. For example, only a limited number of studies could be included. The fact that these studies used different kinds of interventions and addressed different eating disorders complicated the process of reaching reliable conclusions. To include more articles, eligibility criteria would have had to be broader, but increasing the variability of the analysed treatment programs, for instance by including prevention programs, would have lead to even less comparability of results. One recommendation would be to carry out the literature search in more databases to assure the inclusion of all relevant articles. But as internet-based interventions for eating disorders are a relatively novel treatment option still undergoing research, we suspect that the electronic search and the subsequent screening of the reference lists described above should lead to the inclusion of all articles relevant for the review.

Finally, the absence of a CBT-based program, the short duration of the intervention and the lack of post-treatment assessment made the study conducted by Johnston et al. [15] difficult to compare with the other studies in the review. Nonetheless, this study fulfilled all selection criteria and therefore needed to be included in this review. Furthermore, although effect sizes of internet-based interventions can be considered medium to high, comparing them to face-to-face interventions will always be difficult, especially with regard to various sample characteristics (e.g. inpatient vs. outpatient). Generally, further research should evaluate the characteristics of samples recruited for internet-based interventions for eating disorders.

Conclusions

In summary, internet-based interventions based upon CBT principles can be assumed to be a good alternative to face-to-face therapies for the treatment of eating disorders. Especially internet-based guided self-help programs and self-help books supported by e-mail contact showed promising results. This conclusion is supported by the fact that effect sizes of these interventions are comparable to face-to-face treatments for eating disorders and the apparent stability of the treatment outcomes. Furthermore, treatments delivered via the internet are especially relevant for patients who do not have access to conventional therapy programs due to different reasons.

Unfortunately, due to the small number of studies, the differences in disorders addressed and assessment methods used in each study, these conclusions must be interpreted as promising but not definitive. Further research investigating different treatments and self-help programs is needed to analyze the different components of CBT and to identify the most effective strategies. Additionally, predictors of treatment outcome should be identified and examined in order to better deduce which treatment program fits best for each patient.

In conclusion, despite promising effects which internet-based interventions utilizing structured self-help based upon CBT principles seem to have on patients suffering from different kinds of eating disorders, further research is needed to identify factors that lead to these positive results.

Abbreviations

RCT: Randomized controlled trial; CT: Controlled trial; CBT: Cognitive behavioural therapy; BN: Bulimia nervosa; BED: Binge eating disorder; EDNOS: Eating disorder not other specified; EDI: Eating Disorder Inventory; EDE-Q: Eating Disorder Examination Questionnaire; BITE: Bulimia Investigatory Test Edinburgh; BDI: Beck Depression Inventory; HADS: Hospital Anxiety and Depression Scale; MADRS: Montgomery-Åsberg Depression Scale Self-assessment (MADRS); SWLS: Satisfaction with Life Scale; IWQOL-Lite: Impact of Weight on Quality of Life; WHOQOL-Bref: WHO Quality of Life Questionnaire (short form).

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

Manuscript concept and design: RD, AK, BW. Acquisition of data: RD, AT. Analysis and interpretation of data: RD, BW. Drafting of manuscript: RD, AT, AK, BW. Revision of manuscript: RD, AT, AK, BW. All authors read and approved.

Acknowledgements

This work was supported by the Federal Ministry of Education and Research (BMBF), Germany, FKZ: 01EO1001.

Received: 16 August 2012 Accepted: 17 July 2013

Published: 6 August 2013

References

1. Hoek HW, Van Hoeken D: Review of the prevalence and incidence of eating disorders. *Int J Eat Disord* 2003, **34**(4):383-396.
2. Oliver MJ, Pearson N, Coe N, Gunnell D: Help-seeking behaviour in men and women with common mental health problems: cross-sectional study. *Br J Psychiatry* 2005, **186**:297-301.
3. Beintner I, Jacobi C, Taylor CB: Effects of an internet-based prevention programme for eating disorders in the USA and Germany—a meta-analytic review. *Eur Eat Disord Rev* 2012, **20**(1):1-8.
4. Bruning Brown J, Winzelberg AJ, Abascal LB, Taylor CB: An evaluation of an internet-delivered eating disorder prevention program for adolescents and their parents. *J Adolesc Health* 2004, **35**(4):290-296.
5. Jacobi C, Morris L, Beckers C, Bronisch-Holtze J, Winter J, Winzelberg AJ, Taylor CB: Maintenance of internet-based prevention: a randomized controlled trial. *Int J Eat Disord* 2007, **40**(2):114-119.
6. Jacobi C, Volker U, Trockel MT, Taylor CB: Effects of an internet-based intervention for subthreshold eating disorders: a randomized controlled trial. *Behav Res Ther* 2012, **50**(2):93-99.
7. Jones M, Luce KH, Osborne MI, Taylor K, Cuning D, Doyle AC, Wilfley DE, Taylor CB: Randomized, controlled trial of an internet-facilitated intervention for reducing binge eating and overweight in adolescents. *Pediatrics* 2008, **121**(3):453-462.
8. Stice E, Rohde P, Durant S, Shaw H: A preliminary trial of a prototype internet dissonance-based eating disorder prevention program for young women with body image concerns. *J Consult Clin Psychol* 2012, **80**(5):907-916.
9. Taylor CB, Bryson S, Luce KH, Cuning D, Doyle AC, Abascal LB, Rockwell R, Dev P, Winzelberg AJ, Wilfley DE: Prevention of eating disorders in at-risk college-age women. *Arch Gen Psychiatry* 2006, **63**(8):881-888.
10. Volker U, Jacobi C, Barr Taylor C: Adaptation and evaluation of an Internet-based prevention program for eating disorders in a sample of women with subclinical eating disorder symptoms: a pilot study. *Eat Weight Disord* 2011, **16**(4):e270-e273.
11. Zabinski MF, Wilfley DE, Calfas KJ, Winzelberg AJ, Taylor CB: An interactive psychoeducational intervention for women at risk of developing an eating disorder. *J Consult Clin Psychol* 2004, **72**(5):914-919.
12. Carrard I, Crepin C, Rouget P, Lam T, Golay A, Van der Linden M: Randomised controlled trial of a guided self-help treatment on the internet for binge eating disorder. *Behav Res Ther* 2011, **49**(8):482-491.
13. Carrard I, Crepin C, Rouget P, Lam T, Van der Linden M, Golay A: Acceptance and efficacy of a guided internet self-help treatment program for obese patients with binge eating disorder. *Clin Pract Epidemiol Ment Health* 2011, **7**:8-18.
14. Fernández-Aranda F, Núñez A, Martínez C, Krug I, Cappozzo M, Carrard I, Rouget P, Jiménez-Murcia S, Granero R, Penelo E, et al: Internet-based cognitive-behavioral therapy for bulimia nervosa: a controlled study. *Cyberpsychol Behav* 2009, **12**(1):37-41.
15. Johnston O, Startup H, Lavender A, Godfrey E, Schmidt U: Therapeutic writing as an intervention for symptoms of bulimia nervosa: effects and mechanism of change. *Int J Eat Disord* 2010, **43**(5):405-419.
16. Ljotsson B, Lundin C, Mitsell K, Carlbring P, Ramklint M, Ghaderi A: Remote treatment of bulimia nervosa and binge eating disorder: a randomized trial of internet-assisted cognitive behavioural therapy. *Behav Res Ther* 2007, **45**(4):649-661.
17. Robinson P, Serfaty M: Getting better byte by byte: a pilot randomised controlled trial of email therapy for bulimia nervosa and binge eating disorder. *Eur Eat Disord Rev* 2008, **16**(2):84-93.
18. Ruwaard J, Lange A, Broeksteeg J, Renteria-Agirre A, Schrieken B, Dolan CV, Emmelkamp P: Online cognitive-behavioural treatment of bulimic symptoms: a randomized controlled trial. *Clin Psychol Psychother* 2012, **20**(4):308-318.
19. Sanchez-Ortiz VC, Munro C, Stahl D, House J, Startup H, Treasure J, Williams C, Schmidt U: A randomized controlled trial of internet-based cognitive-behavioural therapy for bulimia nervosa or related disorders in a student population. *Psychol Med* 2011, **41**(2):407-417.
20. Heinicke BE, Paxton SJ, McLean SA, Wertheim EH: Internet-delivered targeted group intervention for body dissatisfaction and disordered eating in adolescent girls: a randomized controlled trial. *J Abnorm Child Psychol* 2007, **35**(3):379-391.
21. Cousineau TM, Franko DL, Trant M, Rancourt D, Ainscough J, Chaudhuri A, Brevard J: Teaching adolescents about changing bodies: randomized controlled trial of an internet puberty education and body dissatisfaction prevention program. *Body Image* 2010, **7**(4):296-300.
22. Arcelus J, Mitchell AJ, Wales J, Nielsen S: Mortality rates in patients with anorexia nervosa and other eating disorders. A meta-analysis of 36 studies. *Arch Gen Psychiatry* 2011, **68**(7):724-731.
23. Kersting A, Schlicht S, Kroker K: Internet therapy. Opportunities and boundaries. *Nervenarzt* 2009, **80**(7):797-804.

24. Squires DD, Hester RK: Development of a computer-based, brief intervention for drinkers: the increasing role of computers in the assessment and treatment of addictive behaviors. *the Behavior Therapist* 2002, **25**(3):59–65.
25. Bosworth K, Espelage D, DuBay T: A computer-based violence prevention intervention for young adolescents: pilot study. *Adolescence* 1998, **33**(132):785–795.
26. Andersson G, Cuijpers P: Internet-based and other computerized psychological treatments for adult depression: a meta-analysis. *Cogn Behav Ther* 2009, **38**(4):196–205.
27. Johansson R, Andersson G: Internet-based psychological treatments for depression. *Expert Rev Neurother* 2012, **12**(7):861–869. quiz 870.
28. Callear AL, Christensen H: Review of internet-based prevention and treatment programs for anxiety and depression in children and adolescents. *Med J Aust* 2010, **192**(11 Suppl):S12–S14.
29. Griffiths KM, Farrer L, Christensen H: The efficacy of internet interventions for depression and anxiety disorders: a review of randomised controlled trials. *Med J Aust* 2010, **192**(11 Suppl):S4–S11.
30. Mayo-Wilson E: Internet-based cognitive behaviour therapy for symptoms of depression and anxiety: a meta-analysis. *Psychol Med* 2007, **37**(8):1211–1212. 1211; author reply.
31. Spek V, Cuijpers P, Nyklicek I, Riper H, Keyzer J, Pop V: Internet-based cognitive behaviour therapy for symptoms of depression and anxiety: a meta-analysis. *Psychol Med* 2007, **37**(3):319–328.
32. Manzoni GM, Pagnini F, Corti S, Molinari E, Castelnuovo G: Internet-based behavioral interventions for obesity: an updated systematic review. *Clin Pract Epidemiol Ment Health* 2011, **7**:19–28.
33. Van den Berg MH, Schoones JW, Vliet Vlieland TP: Internet-based physical activity interventions: a systematic review of the literature. *J Med Internet Res* 2007, **9**(3):e26.
34. Fairburn CG, Beglin SJ: Assessment of eating disorders - interview or self-report questionnaire. *Int J Eat Disord* 1994, **16**(4):363–370.
35. Garner DM, Olmstead MP, Polivy J: Development and validation of a multidimensional eating disorder inventory for anorexia-nervosa and bulimia. *Int J Eat Disord* 1983, **2**(2):15–34.
36. Garner DM: *Eating disorder inventory-2 manual*. Odessa, FL: Psychological Assessment Resources; 1991.
37. Nevoen L, Broberg AG: Validating the Eating Disorder Inventory-2 (EDI-2) in Sweden. *Eat Weight Disord* 2001, **6**(2):59–67.
38. Norring C, Sohlberg S: Eating disorder inventory in sweden - description, cross-cultural-comparison, and clinical utility. *Acta Psychiatr Scand* 1988, **78**(5):567–575.
39. Henderson M, Freeman CPL: A self-rating scale for bulimia: "the BITE". *Br J Psychiatry* 1987, **150**:18–24.
40. Hedges LV, Olkin I: *Statistical methods for meta-analysis*. Orlando FL: Academic Press; 1985.
41. Cohen J: *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: L Erlbaum Associates; 1988.
42. Beck AT, Ward CH, Mendelson M, Mock J, Erbaugh J: An inventory for measuring depression. *Arch Gen Psychiatry* 1961, **4**:561–571.
43. Beck AT, Steer RA, Brown GK: *BDI II, inventaire de dépression de Beck*. 2nd edition. Paris: Editions du Centre de Psychologie Appliquée; 1996.
44. Zigmond AS, Snaith RP: The hospital anxiety and depression scale. *Acta Psychiatr Scand* 1983, **67**(6):361–370.
45. Snaith RP, Zigmond AS: *Hospital anxiety and depression scale*. Windsor: NFER Nelson; 1994.
46. Svanborg P, Asberg M: A new self-rating scale for depression and anxiety states based on the comprehensive psychopathological rating scale. *Acta Psychiatr Scand* 1994, **89**(1):21–28.
47. Kolotkin RL, Crosby RD, Kosloski KD, Williams GR: Development of a brief measure to assess quality of life in obesity. *Obes Res* 2001, **9**(2):102–111.
48. Diener E, Emmons RA, Larsen RJ, Griffin S: The satisfaction with life scale. *J Pers Assess* 1985, **49**(1):71–75.
49. Group TW: Development of the World Health Organization WHOQOL-BREF quality of life assessment. The WHOQOL Group. *Psychol Med* 1998, **28**(3):551–558.
50. Pennebaker JW: Writing about emotional experiences as a therapeutic process. *Psychol Sci* 1997, **8**(3):162–166.
51. Wilson GT, Zandberg LJ: Cognitive-behavioral guided self-help for eating disorders: effectiveness and scalability. *Clin Psychol Rev* 2012, **32**(4):343–357.
52. Vocks S, Tuschen-Caffier B, Pietrowsky R, Rustenbach SJ, Kersting A, Herpertz S: Meta-analysis of the effectiveness of psychological and pharmacological treatments for binge eating disorder. *Int J Eat Disord* 2010, **43**(3):205–217.
53. Loeb KL, Wilson GT, Gilbert JS, Labouvie E: Guided and unguided self-help for binge eating. *Behav Res Ther* 2000, **38**(3):259–272.
54. Fairburn CG, Cooper Z, Doll HA, Norman P, O'Connor M: The natural course of bulimia nervosa and binge eating disorder in young women. *Arch Gen Psychiatry* 2000, **57**(7):659–665.
55. Lewandowski LM, Gebing TA, Anthony JL, O'Brien WH: Meta-analysis of cognitive-behavioral treatment studies for bulimia. *Clin Psychol Rev* 1997, **17**(7):703–718.
56. Garner DM: Psychotherapy outcome research with bulimia nervosa. *Psychother Psychosom* 1987, **48**(1–4):129–140.
57. Griffiths RA: Characteristics of dropouts and completers from hypnotherapeutic treatment for bulimia nervosa. *Int J Eat Disord* 1990, **9**(2):217–219.
58. Coker S, Vize C, Wade T, Cooper PJ: Patients with bulimia nervosa who fail to engage in cognitive behavior therapy. *Int J Eat Disord* 1993, **13**(1):35–40.
59. Blouin J, Schnarre K, Carter J, Blouin A, Tener L, Zuro C, Barlow J: Factors affecting dropout rate from cognitive-behavioral group treatment for bulimia nervosa. *Int J Eat Disord* 1995, **17**(4):323–329.
60. McKisack C, Waller G: Why is attendance variable at groups for women with bulimia nervosa? The role of eating psychopathology and other characteristics. *Int J Eat Disord* 1996, **20**(2):205–209.
61. Waller G: Drop-out and failure to engage in individual outpatient cognitive behavior therapy for bulimic disorders. *Int J Eat Disord* 1997, **22**(1):35–41.
62. Christensen H, Griffiths KM, Farrer L: Adherence in internet interventions for anxiety and depression: systematic review. *J Med Internet Res* 2009, **11**(2):e13.
63. Grilo CM, Masheb RM: A randomized controlled comparison of guided self-help cognitive behavioral therapy and behavioral weight loss for binge eating disorder. *Behav Res Ther* 2005, **43**(11):1509–1525.
64. Glasofer DR, Tanofsky-Kraff M, Eddy KT, Yanovski SZ, Thiem KR, Mirch MC, Ghorbani S, Ranzenhofer LM, Haaga D, Yanovski JA: Binge eating in overweight treatment-seeking adolescents. *J Pediatr Psychol* 2007, **32**(1):95–105.
65. Gruzca RA, Przybeck TR, Cloninger CR: Prevalence and correlates of binge eating disorder in a community sample. *Compr Psychiatry* 2007, **48**(2):124–131.
66. Titov N, Andrews G, Davies M, McIntyre K, Robinson E, Solley K: Internet treatment for depression: a randomized controlled trial comparing clinician vs. technician assistance. *PLoS One* 2010, **5**(6):e10939.
67. Carter JC, Fairburn CG: Cognitive-behavioral self-help for binge eating disorder: a controlled effectiveness study. *J Consult Clin Psychol* 1998, **66**(4):616–623.
68. Schmidt U, Andiappan M, Grover M, Robinson S, Perkins S, Dugmore O, Landau S, Treasure J, Eisler J, Williams C: Randomised controlled trial of CD-ROM-based cognitive-behavioural self-care for bulimia nervosa. *Br J Psychiatry* 2008, **193**(6):493–500.

doi:10.1186/1471-244X-13-207

Cite this article as: Dölemeyer et al.: Internet-based interventions for eating disorders in adults: a systematic review. *BMC Psychiatry* 2013 **13**:207.

Submit your next manuscript to BioMed Central and take full advantage of:

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

Submit your manuscript at
www.biomedcentral.com/submit



BioMed Central publishes under the Creative Commons Attribution License (CCAL). Under the CCAL, authors retain copyright to the article but users are allowed to download, reprint, distribute and /or copy articles in BioMed Central journals, as long as the original work is properly cited.