Spoken language is the primary medium of counseling and psychotherapy. The therapeutic value of written language has also been studied extensively, both to provide self-help information and to elicit personal reflection. Interactive journaling (IJ) is a guided writing process that combines both of these functions. It has differed from usual therapeutic writing in two ways: (a) by integrating the presentation of treatment-relevant information in graphic-enhanced text to engage the reader, and (b) by offering frequent structured opportunities for the client to respond to and integrate material being presented. This article provides a description and the first review of research on IJ as a clinical tool. Experimental and quasi-experimental evaluations support a link between IJ and behavior change. Research on motivational interviewing offers evidence-based guidelines for structuring IJ materials to elicit language favoring change, as well as testable hypotheses linking writing processes with outcomes. Implications for counseling practice and research are considered.

Psychotherapy originated as “the talking cure,” promoting mental health through language. Though theories abound as to how counseling conversation can be therapeutic, virtually all forms of counseling rely, implicitly or explicitly (Kohlenberg & Tsai, 2007), on operations of speech as a vehicle for healing.

Whatever the potential curative properties of language, they are surely not restricted to face-to-face professional consultation. This article briefly discusses the use of written material—both print materials provided to clients and therapeutic writing by clients—as a therapeutic adjunct. These two components are blended in the specific method of interactive journaling (IJ), which presents therapeutic content and also elicits clients’ written responses to the material being presented. The article describes IJ and reviews outcome research. Motivational interviewing is considered as a potential tool for structuring IJ and understanding its impact on client outcomes. Implications for future research and practice are addressed.

BIBLIOTHERAPY

There is a long history of seeking to extend mental health benefits through written self-help “bibliotherapy” materials and more recently computer-based interventions (Christensen, Miller, & Muñoz, 1978; Glasgow & Rosen, 1978; Muñoz et al., 2006). Controlled trials have demonstrated the benefit of bibliotherapy for such mental health concerns as depression (Cuijpers, 1997; Scogin, Jamison, &...
Gochneaur, 1989); alcohol problems (Apodaca & Miller, 2003); anxiety (Bower, Richards, & Lovell, 2001); and sexual dysfunction (Marrs, 1995). Print-based materials are low-cost and amenable to online delivery (Hester, Delaney, Campbell, & Handmaker, 2009; Kessler & Lund, 2004); in comparative trials they have often yielded behavioral health outcomes surprisingly similar to those from formal counseling (Apodaca & Miller, 2003; Marrs, 1995; Moyer, Finney, Swearingen, & Vergun, 2002). Written self-help materials can also supplement or follow up on counseling. In one trial (Miller, 1978), for example, problem drinkers completing treatment were randomly assigned to receive or not receive a self-help manual. Those not receiving the manual maintained the same reduced level of drinking they had shown at the end of counseling, whereas those given the manual showed significant further reduction in drinking three months after treatment.

**THERAPEUTIC WRITING**

Beyond reading text material, the potential therapeutic value of written self-expression has also been extensively explored. Reviewing research on the health benefits of therapeutic writing, Pennebaker (1997) concluded that reflective writing on meaningful topics significantly improves physical and emotional well-being and that the benefits “appear to require translating experiences into language” (p. 164). In randomized trials, compared to a control group writing on superficial topics, writing about emotionally meaningful topics has been associated with both significant improvement in mood and behavioral and physiological health and less healthcare utilization (Pennebaker, 1997; Pennebaker & Beall, 1986; Pennebaker, Kiecolt-Glaser, & Glaser, 1988; Smyth, Stone, Hurewitz, & Kaell, 1999); the average effect size was in the medium range ($d = .47$; Smyth, 1998). The benefits again resemble those from talk therapy (Donnelly & Murray, 1991; Murray, Lamnin, & Carver, 1989; Murray & Segal, 1994). Therapeutic writing is also feasible via email and interactive electronic applications (Childress, 1999; Wright & Chung, 2001).

The typical format for therapeutic writing is relatively unstructured except to prescribe a specific period of writing about emotionally significant topics on a designated number of days each week (Pennebaker, 1997; Thompson, 2011).

Journaling has been used in higher education to foster self-regulation, learning, and reflective reasoning (Blake, 2005; Boud, Keogh, & Walker, 1985; Epp, 2008; Kautz, Kuiper, Pesut, Knight-Brown, & Daneker, 2005; Kessler & Lund, 2004; Kuiper & Pesut, 2004). A rationale is that personal reflective writing promotes retention and deeper processing of material (Moore, Boyd, & Dooley, 2010).

Another application of therapeutic writing has been in marital communication. Writing letters to each other has been used extensively in Marriage Encounter and similar relationship enhancement programs (Lester & Doherty, 1983; Ripley & Worthington, 2002). Watzlawick, Weakland, and Fisch (1974) observed that spousal interaction patterns shifted when they switched from talking to writing, which created an opportunity for couples to reframe their issues. Rudes (1992) similarly used letter writing between spouses to interrupt
dysfunctional communication habits, allowing couples to be more reflective in the absence of verbal and nonverbal triggers.

How does reflective writing facilitate change? As with counseling and psychotherapy, a variety of possible mechanisms has been suggested. A common hypothesis is that writing provides an opportunity to step back from and integrate immediate experience (Pennebaker, 1997). It also removes the writer temporarily from whatever interpersonal contexts may reinforce the status quo or inhibit change (Rudes, 1992). Pennebaker (1985) opined that translating experience into written language allows for integration or cognitive reorganization of the experience. There is also evidence that spreading the writing over a longer period, rather than spending the same amount of time in concentrated writing, is associated with larger effect sizes on a range of health outcomes (Pennebaker, 1997; Smyth, 1998).

INTERACTIVE JOURNALING

Whereas therapeutic writing can be relatively unstructured, interactive journaling (IJ) as a clinical tool combines elements of bibliotherapy (the presentation of therapeutic material) with structured reflective writing. IJ has most often been used in professional counseling as an adjunct rather than a freestanding intervention. Treatment-relevant material is presented in a structured manner, with regular opportunities embedded in the text for clients to respond in writing with their own reflections or to answer evocative questions. Information is presented in digestible chunks that can correspond to sessions or homework assignments, and material is graphically enhanced to engage attention.

When certain information needs to be presented as part of prevention or treatment, didactic lectures that leave participants relatively passive typically have little or no impact on behavior (e.g., Miller & Wilbourne, 2002). Participants using IJ are actively engaged with the material, and working through an IJ provides a structure for discussing sequenced material, again in manageable chunks. Interactive journals can be tailored to standardize delivery of particular evidence-based interventions for specific populations and used either as a self-help (bibliotherapy) resource or as a complement to structured individual or group counseling (Davidson, Crawford, & Kerwood, 2008). For example, the Alcohol Skills Training Program developed and tested at the University of Washington (Baer, Kivlahan, Blume, McKnight, & Marlatt, 2001; Marlatt et al., 1998) was converted to an IJ format called CHOICES with an accompanying facilitator’s guide (Parks & Woodford, 2005). Journals have also been developed for such intervention settings as substance abuse treatment programs (Miller & Mee-Lee, 2011); schools (SASSI Institute, 2003); and long-term (Raney, Magaletta, & Hubbert, 2006) and short-term incarceration (Proctor, Cowin, Hoffmann, & Allison, 2009).

RESEARCH ON INTERACTIVE JOURNALING OUTCOMES

Since 1989 IJ materials have been distributed to more than 20 million clients in mental health and addiction treatment, corrections, impaired driv-
ing programs, prevention education, and healthcare (D. Kuhl, personal communication, December 27, 2011). Although there is substantial literature on therapeutic writing, evaluations of IJ specifically began to appear only within the past decade. Some initial reports were limited to participants’ questionnaire responses, which gave it generally favorable ratings for perceived helpfulness, self-reported attitude change, motivation, and intention to continue using journal materials after treatment (Moore, 2011; Raney et al., 2006; The SASSI Institute, 2003).

**Experimental Trials**

A randomized trial of IJ enrolled 183 North Carolina substance-dependent jail inmates whose current offenses were alcohol/drug-related and who had at least one prior incarceration (Proctor, Hoffman, & Allison, 2012). They were assigned to receive an IJ (The Change Companies, 2008; n = 98) or a government information booklet on substance use and criminal behavior (control condition, n = 85). Due to short and unpredictable stays, no additional treatment was provided to either group. The recidivism rates (subsequent booking within 12 months) were 51% for the IJ group and 66% for the control group—a 15 percentage point difference that has both statistical ($p < .05$) and clinical significance (Miller & Manuel, 2008). This study was the first randomized clinical trial of IJ, a design that allows more confident attribution of group differences to the IJ intervention.

In another randomized clinical trial at the University of Iowa, 98 insured adolescents were assigned to one of two substance abuse treatment conditions (Smith, Hall, Williams, Hyonggin, & Gotman, 2006). Strengths-Oriented Family Therapy entailed an average of 25 outpatient sessions of family, individual, and group counseling, with case management. The comparison condition, Seven Challenges, used an IJ that was discussed in group and individual counseling (16 outpatient sessions on average). Despite the significant difference in intensity ($p < .01$), the two treatment groups showed similar substantial reductions in substance use and problem severity across a 12-month follow-up period. However, the specific contribution of IJ to treatment outcome was not evaluated.

Most recently, Messina, Calhoun, and Warda (2012) conducted a randomized trial with 150 women in drug court programs. They compared outpatient treatment-as-usual with a gender-responsive (GR) treatment program using IJ tailored to women that focused on addiction and trauma (Covington, 2002). They observed significantly greater reduction in PTSD symptoms in the GR group at 21-month follow-up, but the design again offered no way to evaluate a specific contribution of IJ to outcomes.

**Quasi-Experimental Trials**

The State of South Dakota implemented an IJ curriculum (The Change Companies, 2003) in all 13 of its core alcohol/drug treatment agencies. The target population consisted of first-time driving-under-the-influence (DUI) offenders aged 18 or older. The four-year outcome report comprised follow-up data
collection for 3,470 program participants, including 15% from Native American or other ethnic minority backgrounds (Loudenburg, 2008). Participants’ records were matched to the state judicial tracking system for longitudinal analysis of any new arrests. In this quasi-experimental design, the intervention group that completed the IJ curriculum was compared with first-offender controls who for unspecified reasons did not participate in the IJ curriculum. DUI recidivism was significantly lower \( (p < .001) \) among intervention participants (13.5%) compared with the control group (18.5%). In the survival function this advantage appeared during the first year of the program, persisted throughout the four-year study period, and was similar for males and females and for all age groups over 20. However, because the groups were nonequivalent (i.e., people who did not participate in IJ may have been systematically different in important ways from those who did), the difference cannot be attributed confidently to the IJ curriculum.

DUI offenders who completed were compared with those who failed to complete IJ-based interventions in Alaska (Davidson, 2007), Virginia (Cheesman, Dancy, Jones, & Hardenbergh, 2005), and Wisconsin (Holmquist, 2008). All three were consistent in direction with Loudenburg’s (2008) findings about recidivism, but this is a less persuasive quasi-experimental design because adherence and completion tend to be associated with better outcomes regardless of treatment type and may be attributable to such client factors as motivation. Though the converging support from these quasi-experimental studies is encouraging, it is not as definitive as the findings from experimental designs.

**INTERACTIVE JOURNALING AND MOTIVATIONAL INTERVIEWING**

Verbalizing certain types of spoken language has been linked with change. Analyses of data from six studies of therapeutic writing revealed that subsequent improvements in health were associated with three linguistic factors: (a) more frequent use of positive emotion words; (b) moderate use of negative emotion words (neither very high nor very low); and (c) a pattern of increasing use of words that bespeak insight or causation over the course of the writing (Pennebaker, 1997; Pennebaker, Mayne, & Francis, 1997). Statements of self-efficacy (Schwarzer, 2008) and of intention (Gollwitzer, Wieber, Myers, & McCrea, 2010) also predict subsequent behavior.

Motivational interviewing (MI) has particularly focused on counselor and client language that influences therapeutic outcomes (Miller & Rollnick, 2013; Miller & Rose, 2009). MI as delivered in individual or group counseling has been evaluated in more than 200 randomized clinical trials across a broad range of health and psychosocial issues (for meta-analyses see Burke, Dunn, Atkins, & Phelps, 2004; Hettema, Steele, & Miller, 2005; Lundahl, Kunz, Brownell, Tollefson, & Burke, 2010; Rubak, Sandbaek, Lauritzen, & Christensen, 2005).

Two broad categories of client speech are distinguished in MI: change talk (client language that favors making a particular change) and sustain talk (language that favors maintaining the status quo). Examples of change talk include statements of desire (I want to), ability (I could), reasons (If I did . . . , then . . . ), need (I have to), activation (I am willing to), and commitment (I will). Its opposite, sustain
talk, takes parallel forms: desire (I don’t want to), ability (I can’t), reasons (If I did …, then . . .), need (I don’t need to), activation (I’m not ready to), and commitment (I’m not going to). These speech acts are reliably measurable from recordings and transcriptions of counseling sessions (Moyers, Martin, Catley, Harris, & Ahluwalia, 2003; Moyers, Martin, Manuel, Hendrickson, & Miller, 2005).

Specific counselor responses can substantially alter the ratio of client change talk to sustain talk (Glynn & Moyers, 2010). More importantly, client change talk predicts behavior change. Several studies have replicated the linkage of change talk and the inverse relationship of sustain talk to subsequent change (Amrhein, Miller, Yahne, Palmer, & Fulcher, 2003; Baer et al., 2008; Gaume, Gmel, Faouzi, & Daeppen, 2009; Moyers et al., 2007; Moyers, Martin, Houck, Christopher, & Tonigan, 2009).

These findings suggest the possibility of intentionally structuring guided writing to evoke language that presages change. In this way IJ provides a plausible method to simulate MI in written format, and MI in turn offers a conceptual basis for designing IJ materials. Reflection questions can be designed specifically to elicit change talk and help clients select successful strategies for change (e.g., Miller & Mee-Lee, 2012). For example, questions can be phrased to evoke specific types of change talk (Miller & Rollnick, 2013):

- Why would you want to make this change? (Desire)
- Given what you know about yourself, how could you best go about it in order to succeed? (Ability)
- What are the three best reasons for you to do it? (Reasons)
- How important is it for you to make this change, and why? (Need)
- What are you willing to do at this point? (Activation)
- What have you decided to do? (Commitment)

In randomized trials, the individual feedback component of motivational enhancement therapy (an adaptation of MI; Miller, Zweben, DiClemente, & Rychtarik, 1992) delivered in writing has yielded significant reduction in heavy alcohol consumption relative to an informational control condition (Agostinelli, Brown, & Miller, 1995; Walters, Vader, & Harris, 2007). There have been no tests thus far of print format implementation of MI per se, although a controlled trial of an interactive computer-based version of motivational enhancement therapy reported a 50% reduction in the alcohol consumption of problem drinkers sustained over a year of follow-up (Hester, Squires, & Delaney, 2005).

**IMPLICATIONS FOR CLINICAL PRACTICE AND RESEARCH**

**Clinical Applications**

IJ provides an adjunctive resource in evidence-based treatment, combining the presentation of therapeutic material (bibliotherapy) with structured writing exercises to promote personal integration of and reflection on content. IJ can be used in individual or group counseling to engage clients actively in
the material being presented. Journal portions can be completed during ses-
sions or assigned as homework between sessions for discussion at the next visit.
In group work, participants may choose to share whatever they have written
in their journals only with the leader, with other group members, or not at all
(Parr, Haberstroh, & Kottler, 2000).

IJ can be delivered in print or electronic forms to complement counseling
(Alfonso, Hall, & Dunn, in press; Eason, 2008; Haberstroh, Trepal, & Parr,
2005). Like a therapist manual, IJ can also help to increase consistency in deliv-
ering evidence-based treatments. Companion facilitator guides and optional
training are available for many client journals, offering practical suggestions
for individual and group counseling activities while guiding clients through the
IJ page by page (e.g., Miller & Mee Lee, 2011; www.changecompanies.net).

Consistent with the general literature on bibliotherapy described earlier, a
randomized trial found beneficial outcomes from IJ even without further treat-
ment (Proctor et al., 2012). This suggests that in clinical services, clients might
work on one issue using IJ while counseling sessions focus on other concerns.
Clients might also be offered an IJ option while on a waiting list for service,
later reviewing what they have written with a counselor.

Research Recommendations

The findings of early outcome evaluations of IJ, both experimental and
quasi-experimental, are encouraging but are limited thus far to correctional and
college populations and primarily related to substance use. It is as yet unclear
how much the IJ component adds to presentation of the same information as
bibliotherapy without journaling. Also in need of evaluation is the extent to
which IJ enhances client engagement, motivation, and counseling outcomes.
When it is used to complement or standardize treatment, the challenge is to
study the specific contribution of IJ to outcomes, a task not attempted in pre-
vious evaluations, and to distinguish it from therapist effects (Crits-Christoph,
Baranackie, Kurias, & Beck, 1991; Project MATCH Research Group, 1998;
Wampold & Bolt, 2006).

IJ materials to date have incorporated extensive graphics to engage the
reader; it would be possible to use a simpler text-only format while still eliciting
reader responses. The contribution of graphics in engaging and retaining read-
ers is unknown and may vary with the population (e.g., college students vs. jail
inmates). Future research could evaluate the relative contributions of graphic
design and interactive writing.

The language generated by IJ, whether in written or electronic form, offers
rich opportunities for content and process analyses. Because the person’s words
are already recorded, there may be no need for transcription before analysis.
Specific client speech acts in counseling sessions do predict outcome (Gaume et
al., 2009; Moyers et al., 2009), as do client responses to questionnaires, but is the
same true of written language? When IJ is specifically designed to elicit change
talk, how successful is it in doing so, and do the extent and pattern of written
change talk predict change? From the written responses to IJ it would be possible
not only to evaluate efficacy but also to test links between client language and behavioral outcome that have been observed in oral counseling (Moyers et al., 2007). Linking client journal responses to behavioral outcomes would provide at least tentative support for the contribution of IJ and a mechanism of action. Even if producing the words is not causal in itself, the types of language that predict change may at least provide clues to significant underlying processes.

As noted, both therapeutic writing and MI have been associated with beneficial changes for a range of populations and target problems. The extent to which IJ effects are similarly transportable across domains is yet to be determined. Evaluations have used a sufficient range of different IJ materials to show that effects are not limited to a particular journal. Does IJ have attributes that mediate efficacy—and how crucial is the interactive component? Do certain client characteristics moderate response to IJ? How does the use of IJ impact the process and outcome of group therapy, and how does it interact with general factors in treatment? Such questions have yet to be studied. Meanwhile, as pressures increase for group counseling and for briefer and more cost-effective intervention options, IJ is an interesting format to explore.

REFERENCES


