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# Psychological Interventions in Gambling Disorder

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Gambling disorder is characterized by clinical impairment from negative consequences of gambling [1]. Examples of problems include an inability to control or stop gambling behavior, preoccupation with gambling, and negative financial, relational, and work or educational consequences. In the United States, for example, gambling disorder affects about 0.4–2.0% of adults, with an additional 1.3–2.3% of adults considered problem gamblers [2–6]. Problem gamblers are individuals who experience some adverse effects related to their gambling but not to the extent that the diagnostic threshold is met.

Few persons with gambling problems access treatment, with only 7-12% of individuals with a lifetime diagnosis of gambling disorder reporting a history of professional treatment or mutual support group participation [7]. Despite low engagement in treatment, about 50% of people with lifetime gambling disorder do not have a current diagnosis, suggesting that natural recovery is common. Therefore, efficacious interventions for gambling disorder have to improve upon natural recovery rates.

A number of types of psychotherapies for gambling have been evaluated. Therapy modalities include full-length professionally delivered treatments, brief interventions, and self-directed workbooks. This chapter will review current empirical support for psychotherapy for gambling disorder, including different theoretical approaches, and other factors, such as intensity and format (i.e., group, individual, workbook, computer-facilitated). We will focus on moderate- to large-sized randomized controlled trials that include an average of at least 25–30 participants per

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A. Heinz et al. (eds.), Gambling Disorder, https://doi.org/10.1007/978-3-030-03060-5\_9

condition as recommended by Chambless and Hollon [8]. This chapter will highlight major gambling-related treatment outcomes and between treatment condition comparisons, with a focus on treatment dropout.

Treatment dropout is emphasized due to high rates of discontinuation among individuals in psychotherapy for gambling disorder, with rates that can commonly reach or even exceed 50% and a median dropout rate of 38% [9]. This rate is nearly double the average treatment dropout from psychotherapy in general, which is still high at 20% [10]. Dropout rates can greatly impact conclusions about treatment efficacy. Treatment discontinuation also has important clinical implications, with therapists unable to determine if patients do not return to subsequent therapy sessions because they have gotten better or they are failing to benefit. In the following sections, we discuss treatment completion and outcomes in full-length professionally delivered treatments and in self-guided or workbook-based interventions. We will also review motivational psychotherapy interventions developed specifically to address low engagement and retention in gambling treatment.

# 9.1 Professionally Delivered Behavior Therapy and Cognitive Therapy

Behavior therapies help patients change by focusing on eliminating unwanted behaviors and replacing them with more desirable actions. Cognitive therapies attempt to identify and challenge faulty thinking patterns, also called cognitive distortions (see [11]). Cognitive-behavioral treatments integrate both aspects. Table 9.1 provides an overview of the randomized controlled trials of these treatments.

Ladouceur et al. [12] randomly assigned 88 individuals with gambling disorder to cognitive therapy or a waitlist control condition. Treatment sessions continued until the patient stopped gambling completely. Thus, treatment was lengthy and lasted up to 20 sessions (average treatment time was 11 h). Treatment dropout was high at around 50%. Therapy completers showed significant posttreatment improvement on most gambling-related variables compared to participants on the waitlist. In a later study that explored the same therapy delivered in a group format [13], 71 participants with gambling disorder were randomized to either group cognitive therapy or a waitlist control. Treatment completion was higher relative to the individual format, with 74% of participants attending the 10 weekly, 2-h group sessions. At posttreatment, 88% of the gamblers who had completed treatment no longer met criteria for gambling disorder compared to 20% of waitlisted participants. Treatment gains were maintained through 6-, 12-, and 24-month follow-ups, although betweengroup comparisons were not possible due to the study design, and analyses in both these studies included only treatment completers.

Moving beyond a waitlist design, Smith et al. [14] compared cognitive therapy to a specific behavioral therapy—exposure therapy, in which patients were exposed to gambling situations without wagering, with cash restriction during exposure tasks gradually lessening over time. Eighty-seven problem gamblers were randomly assigned to one of the two conditions. Using intent-to-treat analyses that included

Table 9.1Randointerventions with	mized trials of or without cog	full-length professionally delivered nitive-behavioral therapy	l treatn	aents, self-directe	d workbook, and Internet-	based interventions, and motivational
				Treatment duration		Summary treatment comparison
Authors, year	Population	Treatment conditions	Ν	(sessions)	Completed treatment	(for gambling outcomes)
Professionally de	livered behavio	r therapy and cognitive therapy				
Ladouceur	Gambling	1. Waitlist	29	I	I	Cognitive tx: more symptom
et al. [12]	disorder	2. Cognitive therapy	59	$\leq 20$ sessions	~50%	improvement
Ladouceur	Gambling	1. Waitlist	25	I	1	Cognitive tx: more symptom
et al. [13]	disorder	2. Group cognitive therapy	46	10 weeks	74%	improvement
Smith et al.	Problem	1. Cognitive therapy	44	~12 weeks	68%	Both txs: symptom improvement;
[14]	gamblers	2. Exposure therapy	43	(~12)	49%	no significant condition differences
Professionally de	livered CBT					
Petry et al. [15]	Gambling	1. GA referral	63	Ι	I	Both CBT txs: greater abstinence
	disorder	2. CBT workbook	84	8 weeks (8)	37%	
		3. Individual CBT	84	8 weeks (8)	61%	
Oei et al. [16]	Problem	1. Waitlist	28	I	Not reported	Both CBT txs: more improvement
	gamblers	2. Group CBT	37	6 weeks (6)		than waitlist; no significant tx
		3. Individual CBT	37	6 weeks (6)		condition differences
Self-directed CB1	<sup>r</sup> interventions					
Hodgins et al.	Problem	1. CBT workbook mailed once	85	1	63% read materials	Both txs: correspond to symptom
[17]	gamblers	2. CBT workbook in repeated	84	11 months (8)	(not reported by group)	reduction; no significant condition
		manugo				(continued)

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Table 9.1 (contin	lued)					
17 - 4	-	Ë	, v	Treatment duration		Summary treatment comparison
Authors, year	Population	I reatment conditions	N	(sessions)	Completed treatment	(for gambling outcomes)
Campos et al. [18]	Problem gamblers	1. CBT workbook plus therapist guidance	47	20 weeks	~50% (not reported by group)	Workbook plus guidance condition: higher abstinence rates
		2. CBT workbook	40			
Luquiens et al.	Problem	1. Waitlist	264	6 weeks	1	Some symptom improvement for
[19]	gamblers	2. Normative feedback via email	293		22%	all conditions; no significant
		3. Email with CBT workbook	264		17%	condition differences
		4. Email with CBT workbook	301		5%	
		plus therapist guidance				
Motivational inte	rventions and p	rrofessionally delivered CBT				
Grant et al. [20]	Gambling	1. GA referral	35	1(1)	86%	MI + CBT: higher abstinence rates
	disorder	2. MI + CBT	33	8 (6)	76%	
Petry et al. [21]	Problem	1. Assessment only	48	I	I	Brief advice only tx to significantly
	gamblers	2. Brief advice/feedback	37	1 (1)	100%	decrease gambling behavior;
		3. MI	55	1(1)	94%	MI + CBT decrease on one
		4. MI + CBT	40	4 weeks (4)	33%	gambling outcome
Petry et al. [22]	Problem	1. Brief psychoeducation	69	1(1)	100%	At txs improved symptom
	gamblers	2. Brief advice	66	1 (1)	100%	outcomes; MI + CBT greater
		3. MI + CBT	82	4 weeks (4)	28%	reduction \$ spent and gambling
Carlbring et al.	Problem	1. Waitlist	46	1	I	Both MET and CBT: more
[23]	gamblers	2. Individual MET	54	9 weeks (4)	43%	improvement than waitlist, no
		3. Group CBT	50	9 weeks (8)	29%	significant tx condition differences
Larimer et al.	Problem	1. Assessment only	51	I	I	Both txs: significant symptom
[24]	gamblers	2. MI	52	1 (1)	85%	improvements; no significant tx
		3. Group CBT	44	6 weeks (4–6)	<41%	condition differences

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Motivational inte	rventions and s	self-directed treatments				
Hodgins et al.	Problem	1. Waitlist	35	1	I	Both workbook conditions: more
[25]	gamblers	2. CBT workbook	35	1	56% read workbook	improvement than waitlist,
		3. CBT workbook + MI phone call	32		(not reported by group)	workbook + MI greater short-term improvements, no significant long-term tx condition differences
Hodgins et al.	Problem	1. Waitlist	65	6 weeks	Not reported	Both MI conditions: greater
[26]	gamblers	2. CBT workbook	82	6 weeks		short-term improvements, no
		3. CBT workbook + MI phone call	83	6 weeks (1)		significant long-term tx condition differences
		4. CBT workbook + MI booster calls	84	36 weeks (7)		
LaBrie et al.	Problem	1. Waitlist	102	1	Not reported	Both workbook conditions: greater
[27]	gamblers	2. CBT workbook + MI in workbook	108	I		improvements, no significant tx condition differences
		3. CBT workbook + MI in	105	3 months (1)		
	:			;	2	
Diskin and Hodgins [28]	Problem gamblers	<ol> <li>CBT workbook + control interview</li> </ol>	39	1(1)	50%	MI condition: greater improvements on some gambling-
		2. CBT workbook + MI in person session	42	1 (1)	64%	related outcomes
Cunningham	Problem	1. Waitlist	69	1		MI partial feedback condition:
et al. [29]	gamblers	2. MI partial feedback	70	1(1)	100%	greater improvements on some
		3. MI full feedback	70	1 (1)	100%	gambling outcomes; no other significant condition differences
Neighbors et al.	Problem	1. Personalized normative	124	1 (1)	100%	Feedback condition: reduced \$ lost
[30]	gamblers	feedback via computer				and reduced symptoms short-term
		2. Attention control	128	1(1)	100%	follow-up; no condition differences
						on symptoms long-term
Notes: CBT cognit Summary treatment	tive-behavioral nt comparison i	therapy, GA Gamblers Anonymous, l includes only select major treatment	AET m outcon	otivational enhanc nes with emphasis	ement therapy, MI motivat on between treatment con	ional interviewing; tx(s), treatment(s). dition comparisons

all randomized participants, both treatments significantly reduced gambling at the 3-month follow-up with no significant differences between conditions. At the 6-month follow-up, 79.3% of cognitive therapy treatment participants and 82.6% of the exposure therapy treatment participants no longer met criteria for gambling disorder, rates which again did not differ. Exposure therapy had a higher dropout rate of 51% compared to 32% in the cognitive condition. However, treatment effects were achieved in a shorter time frame (average of one to three sessions) in the exposure treatment may have been due to intervention-related factors (e.g., dislike of the treatment) or participants feeling better sooner and deciding they no longer needed treatment.

Overall, cognitive therapy, whether delivered in a group or individual format, appears to provide greater reductions in gambling symptoms than a waitlist control. Still, there is limited evidence that cognitive therapy is superior to other active therapies, such as behavioral therapy, or even to natural reductions in gambling that occur over time. Furthermore, attrition from cognitive therapy is fairly high, and research on this intervention remains limited. Many aspects of cognitive approaches have been incorporated into integrated treatment models such as cognitive-behavioral therapy (CBT), which has been more extensively studied.

# 9.2 Professionally Delivered Cognitive-Behavioral Therapy

Cognitive-behavioral therapy (CBT) merges cognitive and behavioral approaches. The first controlled trial [15] of CBT for gambling problems used the eight-session protocol developed by Petry [31]. Petry et al. [15] randomized 231 individuals with gambling disorder to one of three conditions: Gamblers Anonymous (GA) referral plus CBT workbook (one chapter to be completed each week over 8 weeks), GA referral plus therapist-directed CBT using the same workbook content in 8 weekly individual sessions delivered by a therapist, or referral to GA only. While gambling decreased overall for participants across all study conditions, participants in both CBT conditions had significantly larger reductions in gambling problems, with 69% of participants in therapist-delivered CBT condition and 51% of those in CBT workbook condition no longer meeting gambling disorder criteria at posttreatment, compared to 47% of those with the GA referral-only condition. Treatment completion data indicated that therapist-delivered content resulted in higher levels of engagement with the CBT (61% completed versus 37% in the workbook condition), and completion of the CBT, whether in a workbook or individual session format, was significantly related to outcomes. Results suggest therapist interaction can increase engagement in CBT, and CBT spurred greater behavior change than a GA referral alone.

With the initial success of CBT, Oei et al. [16] sought to determine whether group or individually delivered CBT was optimal. They randomized participants with problem gambling to individual CBT, group CBT, or a waitlist control. Participants in both CBT conditions reduced their gambling in comparison to the waitlist condition by the end of treatment. Treatment gains were maintained in the two active conditions, and no differences were reported at the 6-month follow-up. This study did not report upon treatment completion rates, limiting the ability to draw conclusions about differential engagement for group or individual CBT, but these data suggest both group and individual formats of CBT appear to reduce gambling.

#### 9.3 Self-Directed CBT Interventions

Although the Petry et al. [15] study found that fewer patients with gambling disorder completed a CBT workbook than individual CBT sessions, gamblers with less severe problems may be more willing to utilize self-directed interventions than visit a therapist weekly. CBT workbook-based interventions may reduce some treatment barriers including treatment cost and transportation issues, and these options may also be associated with less stigma than seeking help from a mental health professional. Some studies have evaluated workbook and computer-facilitated versions of CBT in problem gamblers.

Hodgins et al. [17] randomized problem gamblers (N = 169) to receive a relapse prevention workbook based on CBT principles in its entirety immediately following study enrollment or to receive the workbook in sections eight times over an 11-month time frame. Just over 60% of participants reported completing the workbook, and spaced delivery did not improve completion rates or treatment outcomes. Regardless of delivery format, 23% reported recent abstinence from gambling at a 1-year followup, and 30–46% were no longer gambling problematically depending on assessment measure. These recovery rates, however, are similar to those noted for spontaneous improvement in epidemiological studies (33–36%; [7]) and are highlighted by the authors' study as mirroring recovery rates found in a previous study on the natural process of relapse [32]. Whether the workbook improved upon natural recovery could not be determined with this study design due to the lack of a control group.

In a similar study, Campos et al. [18] examined whether providing therapist guidance improved workbook utilization. Problem gamblers were randomly assigned to a CBT workbook plus therapist guidance or to a workbook-only condition where a research assistant checked in five times over 20 weeks to see if chapters had been completed. Therapist guidance improved abstinence rates at the end of treatment and 1 year later compared to those in the workbook-only condition. However, failure to complete the workbook was again high (>50%), and this study did not report completion rates by condition making it unclear if therapist guidance influenced workbook adherence and whether that related to improvements.

Subsequently, Linquiens et al. [19] explored therapist guidance for an Internetbased intervention, and they recruited non-treatment-seeking gamblers by offering an Internet-based gambling disorder screening to poker players on an online website. Players identified as problem gamblers (N = 1122) were randomized into four treatment conditions: waitlist control, normative feedback related to the results of their screening via single email, a CBT workbook emailed in a single downloadable file, or the same CBT program emailed weekly by a psychologist providing personalized email guidance associated with chapter content. Treatment dropout rate was high across all treatment conditions (83%), and the therapist-guided CBT condition had the highest dropout rate (95%). On average, participants showed some reductions in gambling at the 6-week follow-up with no significant differences observed between conditions. The particularly low treatment completion rates in this study are probably related to the fact that these gamblers were not seeking treatment. These data suggest when active gamblers are not seeking treatment, therapist facilitation may lead to increased treatment dropout relative to more "hands-off" approaches.

Across these studies, self-delivered CBT generally decreased gambling and gambling symptoms over time, but most studies did not include an attention control condition obviating the ability to determine the efficacy of CBT workbooks. Further, generally only about half the patients, even those who sought treatment, completed the workbook, and very few among the non-treatment seekers. Therapist facilitation, no matter how minimal, may improve outcomes, but only among those who are actively seeking treatment.

#### 9.4 Motivational Interventions

As highlighted above, many individuals, even those who actively seek and start gambling treatment, do not receive the full recommended course of therapy. Going beyond general therapist guidance, motivational interviewing (MI) and motivational enhancement therapy (MET) were developed to facilitate increased treatment engagement for individuals with substance use disorders. The goal of both is to overcome barriers of treatment initiation and increase overall investment in therapy by supporting an individual's commitment to changing problem behavior. MI typically refers to a single-session intervention focused on the collaborative development of a change plan [33], while MET uses several sessions to comprehensively target internal motivation and includes personalized feedback related to a specific behavior targeted for change [34].

Motivational interventions have been widely adapted for use with problem gambling populations. Depending on the trial, MI has been delivered as a standalone intervention, integrated into a CBT intervention, or administered prior to a CBT intervention. Very brief motivational interventions, including single-session MI and personalized feedback only, have also been used to directly circumvent low treatment retention by ensuring the complete intervention occurs at a single point of contact.

# 9.5 Motivational Interventions and Professionally Delivered CBT

MI has been applied in an attempt to enhance completion of professionally delivered CBT. Grant et al. [20] compared 68 individuals with gambling disorder who were randomly assigned to MI plus CBT or to a GA referral condition. The MI plus

CBT (based on [31]) lasted 8 weeks. Participants in the MI plus CBT condition reported greater reduction in gambling at the posttreatment follow-up compared to participants in the GA referral condition, and 76% of participants completed the treatment. Interpretations about long-term effects were not possible as participants in the GA referral condition subsequently received the active treatment, and the specific impact of MI could not be isolated in this design.

Petry et al. [21] also explored the use of single-session interventions compared to an abbreviated multi-session MI/CBT intervention for non-gambling treatment seeking individuals who screened positive for gambling problems when assessed in waiting rooms of medical clinics and substance use clinics. Participants (N = 180) were randomly assigned into an assessment-only condition, 10 min of brief advice about gambling, a single MI session, or the same MI session plus three sessions of CBT. All randomized patients completed both single-session interventions, but only 33% of participants in the four-session condition completed treatment. When compared to the assessment-only condition, brief advice was the only condition that significantly decreased gambling behavior between baseline and the 6-week and 9-month follow-ups, but there were also no significant differences between the three active interventions. This study suggests that a very brief intervention may be useful in this population.

In a later study, Petry et al. [22] randomly assigned 217 substance abuse treatment patients who screened positive for gambling problems to 10–15 min of brief psychoeducation about gambling; 10-15 min of brief advice on gambling-related norms, risk factors, and methods to prevent more gambling-related problems; or four sessions of MI plus CBT for gambling (as based on [31]). All participants also received standard substance abuse treatment. The single-session gambling interventions were provided immediately following the baseline evaluation ensuring all participants assigned to them received them, but only 28% of participants assigned to the MI plus CBT condition completed all four sessions. At a 5-month follow-up assessment, gamblingrelated symptoms reduced for participants across all conditions. Brief advice decreased gambling days between baseline and the 5-month follow-up to a greater degree than the brief psychoeducation condition. The MI plus CBT condition did not reduce days gambled compared to brief advice, but it did result in greater reductions in money spent gambling and gambling-related problems at the 5-month follow-up. At a 24-month follow-up, participants in all groups reported continued reductions in money spent and problems relative to baseline, with participants assigned to the MI plus CBT condition significantly more likely than those assigned to the brief interventions to be in long-term recovery from problem gambling. Overall, for individuals receiving concurrent substance use treatment, gambling-related symptoms significantly decreased over time, with the MI plus CBT condition resulting in the greatest clinical improvement, even though few participants completed all four sessions.

MET, with its more intensive content than MI, has also been evaluated as a standalone intervention for the treatment of gambling problems. Carlbring et al. [23] randomized 150 participants with problem gambling to four sessions of individual MET, eight sessions of group CBT (as based on [35]), or a waitlist control. Individuals in both active treatment conditions had significant declines in gambling-related symptomology compared to participants in the waitlist control group. No differences were found between active treatment conditions. Rates of engagement in both treatments were low and not significantly different, with 43% completing MET and 29% completing CBT. Given the different study designs, it remains unknown whether the addition of MET or MI to CBT is superior for reducing gambling-related symptoms compared to MET or CBT alone, but several studies have found benefits of one or both of these interventions combined.

Like MET, MI as an independent intervention has also been directly compared to CBT. In addition to the study by Petry et al. [21], Larimer et al. [24] explored the use of a single-session MI intervention for 147 university students with problem gambling. Participants were randomly assigned to either a single-session of MI or four to six sessions of group CBT (based on [31]) or an assessment-only control condition. Participants in both the CBT and the MI intervention conditions significantly reduced gambling frequency. The CBT intervention group had high attrition, with less than half of participants attending at least 50% of the sessions. Results suggest a single session of MI had a similar impact on gambling-related symptoms as a more extensive CBT intervention.

In sum, adding MI to CBT may improve retention rates in CBT, but no studies have been designed to isolate the impact of integrating MI with CBT in the context of professionally delivered therapy. Nevertheless, the two approaches combined appear to yield some benefits. Due to its brevity, MI on its own is more likely to be completed than more extensive CBT interventions, and MI on its own is useful for reducing gambling in some populations, although it has not been evaluated as a standalone treatment relative to an attention control condition.

## 9.6 Motivational Interventions and Self-Directed Treatments

Self-directed treatments require individuals to be internally motivated to complete them. MI has been evaluated as a method to increase completion of these types of interventions as well. Hodgins et al. [25] randomly assigned 102 problem gamblers to a waitlist control, a CBT workbook, or a CBT workbook enhanced by an MI phone session. Hodgins et al. [26] later varied whether MI was delivered in a single phone call or via six booster calls over a 9-month period. In both these studies, participants receiving any form of MI phone contact gambled less at posttreatment and 1-, 3-, 6-, and 9-month follow-ups than those who received the workbook-only conditions, with participants in the 2001 sample also gambling less at a 24-month follow-up. However, there was little evidence of benefit from repeated therapist contact [26]. As neither study reported workbook completion rates by condition, it is not possible to determine if MI phone calls increased treatment engagement directly, and more therapist contact was not associated with better outcomes than a single therapist contact.

LaBrie et al. [27] conducted a study similar to the treatment design of Hodgins et al. [25, 26], with the exception that MI was directly integrated into the CBT workbook and the phone call condition was simply a 5-min scripted phone call introducing the program and acting as a guide to the workbook. While not reaching statistical significance,

participants in both active treatment conditions were 20% more likely to have achieved periods of abstinence when assessed at a 3-month follow-up than participants in the waitlist condition, but again no benefits were found for the addition of therapist contact. The researchers again did not note workbook completion rates. Rates of recent abstinence in the waitlist control group were also substantial, and the authors attributed the lack of statistically significant differences between treatment and control conditions to reductions in gambling for participants across all conditions.

Diskin and Hodgins [28] sought to examine if, instead of a phone call, a single face-to-face MI intervention could increase completion and impact of a CBT workbook. Eighty-one problem gamblers were randomized to either a MI plus CBT workbook condition or a structured psychiatric interview (to serve as a matched attention control) plus the CBT workbook. Workbooks were handed out at the conclusion of the in-person session or interview. Fifty percent of participants in the workbook-only condition and 64% in the MI plus workbook condition reported completing the workbook. At the 12-month follow-up, MI plus CBT workbook participants were spending less money gambling and wagering on fewer days than participants in the workbook-only condition. However, gambling severity did not differ by condition, suggesting benefits were not consistent across all gambling domains.

The impact of very brief motivational materials has also been explored by Cunningham et al. [29]. They randomized problem gamblers (N = 209) to one of the three conditions: waitlist control, MI with personalized feedback that included normative information about gambling, and MI with personalized feedback but no comparison of participant's gambling to population norms. Feedback for both conditions was imbedded within the MI materials. As the intervention occurred at the initial point of contact, all participants completed the treatment. Participants who received the partial feedback with no gambling norms, but not those who received the full personalized feedback, reported a reduction in days gambling compared to the waitlist condition. Given that feedback was incorporated within MI materials, it is not possible to determine the extent to which participants interacted with the personalized feedback, but these results suggest normative feedback information may not be particularly useful.

In contrast, another study found benefits of normative personalized feedback. Neighbors et al. [30] assigned 252 problem gambling college students to a singlesession computer-delivered personalized feedback condition providing college student gambling norms or to an attention control condition. At 3-month post-intervention, the normative feedback condition participants had reduced gambling symptoms and money lost relative to the controls. At the 6-month follow-up, participants in the active intervention condition continued to report significantly less gambling loss than the attention control participants, with no between-condition differences for gambling symptoms. These findings suggest preliminary support for very brief interventions with college student problem gamblers as well as support for a computer-delivered intervention, but as in most studies, treatment effects were not consistent across all domains.

Together, these studies suggest that integrating minimal MI with CBT-based workbooks may be helpful, but benefits are not pronounced or consistent. Applying personalized feedback related to gambling norms has had mixed effects on improving outcomes.

#### 9.7 Conclusion

Many interventions designed to treat gambling problems suffer from low rates of engagement and completion. Despite high dropout rates, some treatments have yielded benefits in reducing gambling problems, namely, CBT. CBT reduced gambling and related problems compared to waitlist and other control conditions in several studies, whether the CBT was delivered in an individual or group format. Adding MI to CBT certainly does not hurt, and may help enhance engagement and outcomes, but studies have yet to isolate benefits of including motivational interventions alongside professionally delivered CBT.

Self-directed treatments may also reduce gambling-related symptoms in some contexts. Workbooks and computer-facilitated programs have extended traditional CBT interventions beyond the mental health clinic. While minimal therapist contact appears to enhance initial engagement in these forms of self-directed treatment, at least for some populations of gamblers, therapist contact does not universally translate to measureable impacts on long-term gambling outcomes, and more therapist contact does not lead to additive benefits.

Motivational interventions have also been studied on their own. They outperform waitlist controls in some cases, and very brief motivational or personalized feedback interventions may be sufficient for creating behavior change, particularly in some groups of problem gamblers not actively seeking treatment. These singlesession interventions may be as good at spurring change as some longer interventions, especially for less severe problem gamblers, and by their nature, they are not associated with the high rates of attrition found in longer-term interventions.

Overall, no treatment modality or format has resulted in markedly superior rates of treatment retention or outcomes compared to other active treatments, but the greatest support to date is for CBT, with or without MI/MET. Gambling problems tend to dissipate over time in most persons, so it is imperative that study designs include attention control conditions to assess efficacy. Regardless of the type of therapy provided, few persons with gambling problems remain engaged in lengthy treatments. Further development and evaluation of brief interventions may be most relevant in the context of treating gambling problems.

Acknowledgments Preparation of this manuscript was supported in part by NIH grants R21-DA031897, P50-DA09241, P60-AA03510, R01-HD075630, R01-AA021446, and R01-AA023502. Additional support was provided by the Connecticut Institute for Clinical and Translational Science (CICATS) at the University of Connecticut. The content is solely the responsibility of the authors and does not necessarily represent the official views of CICATS.

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