

An Introduction to Process Addictions

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This document provides basic information on process addictions for front-line clinicians. While problem gambling is the best-researched of the process addictions, and thus serves as the usual paradigm of such conditions, the discussion here is also relevant to other similar behavioural problems that involve a lessening of control, persistent seeking, and significant harm even though no addictive *substance* is involved. As will be seen, these behaviours often result from the same underlying psychological factors, and can enhance or even replace one another in a client's behavioural repertoire. It is therefore vital in clinical work to be on the lookout for a number of these behaviours even if only one constitutes the presenting problem.

What is a process addiction?

The concept of addiction, or dependence, originated in the field of substance abuse, particularly the abuse of alcohol, opiates and cocaine (Courtwright, 1982; Dickson, Derevenksy & Gupta, 2002; Musto, 1973). Researchers have been working in this area for well over a century (e.g., Crothers, 1893) and have produced a substantial body of theoretical models and empirical data (Rosenthal, 1992; Taber et al., 1987). Substance addictions are usually thought of as a *perceived loss of control* (Room, 2003, pp. 225 & 228), caused either by qualities of the addictive substance itself, or by some psychological desire or craving the substance inspires or takes advantage of.

In recent decades, researchers have noticed that the concepts they evolved to explain how substance abuse works can apply by analogy to other forms of repeated dysfunctional behaviours even when these do not involve ingesting any “addictive” substances. Thus, people may be said to be “addicted” to gambling, sex, exercise, video games, work, shopping and a variety of other behaviours (possibly including such phenomena as certain types of repetitive crime). The behaviours can become as habit-forming as an addictive drug.

An addiction to, or dependence on, such behaviours is termed a “process” addiction because it is a type of behaviour (a process) that the person is involved with, not a substance. While equivalents for substance-related phenomena like withdrawal (Rosenthal & Lesieur, 1992) and tolerance can be deduced for behavioural addictions, this usually isn’t helpful to clinicians (Achal, n.d.)—there are, after all, no *physical* limits to these phenomena, as there would be if a substance were involved.¹ Nor is it likely that a behavioural pattern can tap into neurological reward and motivation systems as directly as certain substances can. See Childress et al. (2008) and Szalavitz (2002) for discussions of how substances can hijack such systems.

Nonetheless, the fundamental idea that clients are experiencing a loss of control over a significant aspect of their behaviour does provide useful insights into how the problem works and how to assess and treat it. Brown (1997) has pointed out how problem gambling, for example, shares a number of features with substance addictions:

- cognitive distortions and deficits in decision-making (see also Goudriaan et al., 2005)
- rituals to trigger arousal
- low treatment success rates (but frequent spontaneous cures)
- decline in enjoyment over time
- perceived loss of control.

Some theorists (Peele, 1989; Reinarman, 2005) even argue that the degree to which behavioural addictions successfully mimic substance-based ones implies that

¹ Food addictions are normally also classified as process addictions, even though substances are involved. Presumably this is because food is not seen as directly mood-altering or psychotropic.

addiction models should be broad-based, avoiding an emphasis on supposedly causative qualities of addictive substances.

A process-addiction approach to behavioural problems implies a focus on the individual characteristics of the client, particularly any pathological predispositions toward loss of control (impulsivity, compulsive tendencies, and so on). This contrasts the process-addiction model with others which may privilege other factors (the client's social, political, cultural or familial environment; unconscious psychiatric motives; physiological or genetic predispositions, etc.).

Scientific researchers were not the only people to make the analogy between substance abuse and process addiction. Those who suffer from process addictions (people who are addicted to gambling, overeating, sex and love, shopping and so forth) have themselves adopted mutual-aid mechanisms pioneered by those battling substance abuse (Peele, 1989). It is not clear whether the primary appeal is the resonance of the underlying concept of addiction, or the perceived success of the mutual-aid techniques.

We should note that addictions, whether substance- or behaviour-based, differ from pure obsessions and compulsions in that they are directed toward a goal, and are expected to yield pleasure. By contrast, obsessive and compulsive behaviours are noticeably rigid and stereotyped, and are not performed to produce any particular result (Brown, 1997, p. 49).

A number of different models have arisen to illustrate the dynamics of addiction acquisition and maintenance (leading examples being the disease model, the positive and negative reinforcement models, and the biopsychosocial model). ([An Introduction to Conceptual Models of Problem Gambling](#) in *Helping the Person Affected by Problem Gambling* will provide the reader with a more detailed discussion.) These various accounts of what makes addictions "work" are not mutually exclusive, and each one may be the most helpful at different times. Suffice it to say that most theories presume some sort of pre-existing proclivity toward addiction in certain people, and that behavioural addictions, because they cannot plausibly be linked to specialized neurological centres in the nervous system, tend not to fit comfortably into disease models of addiction.

What factors make process addictions more likely?

Negative-reinforcement theories posit a vulnerability to addiction produced by various causes that create stress or similar unpleasant feelings in the individual, which a substance or process can relieve (Achal, n.d.; Duncan, 1974a, 1974b; Khantzian, 1985). Biopsychosocial theories point out a number of personal and social factors that are thought to increase the probability of syndromes like problem gambling and other process addictions (Blaszczynski & Nower, 2002; Griffiths & Delfabbro, 2001).

A huge body of research has produced empirical evidence to connect addictions in general, and specific process addictions in particular, to a host of pre-existing risk factors and co-existing problematic conditions. Most of the data from these studies

are correlational, and correlations alone cannot identify the direction of causality, or even prove that any cause-effect link exists. All they show is that, when one condition exists, another is likely to be present. While it is tempting to suppose that one condition caused the other, particularly when the “cause” predates the “effect,” in the absence of other evidence it is preferable merely to note the correlation.

This does not mean that correlational data are useless, however. Correlations may suggest other problems to look out for when dealing with clients with process addictions. These other issues may have to be addressed at the same time if treatment is to succeed.

Here, then, are some risk factors correlated with process addictions:

Substance addictions. One of the strongest correlates of problem gambling, and of other process addictions like sex addiction, is substance abuse (Bourget et al., 2003; Cunningham-Williams et al., 2000; Feigelman et al., 1995; el-Guebaly et al., 2006; Hall et al., 2000; van Hamel et al., 2007; Hardoon et al., 2004; Kaminer & Petry, 1999; Kausch, 2003; Langenbucher et al., 2001; Lesieur et al., 1986; Lesieur & Heineman, 1988; Lynch et al., 2004; Martins et al., 2002; Pantaloni et al., 2008; Petry, 2006; Potenza, 2006; Smart & Ferris, 1996; Spunt, 2002; Steinberg et al., 1992; Vitaro et al., 2001; Winters & Anderson, 2000). People who abuse substances (especially those who use heroin, methadone or cocaine) are four to 10 times more likely than the general population to have a gambling problem (Ledgerwood & Downey, 2002; Spunt et al., 1998). Most commonly the substance abuse predates the process addiction, but sometimes the process addiction begins first, or both concerns arise simultaneously (Kausch, 2003).

Other process addictions. Some theorists believe that tolerance for one kind of behavioural addiction breeds increased tolerance for other kinds (cross-tolerance) (Carnes et al., 2005). Problem gambling, for example, frequently occurs in concert with other process addictions, particularly an involvement with risky sexual practices. Process addictions go together, substitute for one another and reinforce one another (Barnes et al., 2002; Vitaro et al., 2001). There is considerable debate, however, about whether one process addiction can cause another (Carnes et al., 2005; Schneider et al., 2005), or whether they are all determined by a more fundamental factor or characteristic (Barnes et al., 1999, 2002; Vitaro et al., 2001).

Poor impulse control (“impulsivity” or “impulsiveness”) and risk-taking.

Poor impulse control has been linked to most types of substance and process addictions. By giving comparatively free rein to their urges, people who are impulsive may expose themselves to numerous sources of risk, including substance abuse, unsafe sexual practices and problem gambling—the last a source of risk by definition (Alberta Alcohol and Drug Abuse Commission, 2002; Derevensky et al., 2001; Glass, 2002; Stinchfield, 2000; van Hamel et al., 2007; Wiebe & Falkowski-Ham, 2003). People who feel they need a high degree of arousal may use risk to elevate their level of excitement (Larkin & Griffiths, 2004). The particular risky behaviours can become so interchangeable that some theorists prefer to think in terms of a “problem behaviour syndrome” rather than focusing on each behaviour

in isolation (Barnes et al., 2002; Costa, 2008; Jessor & Jessor, 1977; Vitaro et al., 2001). Such a concept seems especially apt with regard to youth.

Childhood neglect, trauma, physical or sexual abuse. Grossly pathological incidents or ongoing conditions in childhood are linked to commensurately negative outcomes later in life, including problem gambling (Moore & Jadlos, 2002).

Psychiatric issues. Both substance abuse and process addictions such as problem gambling correlate with psychiatric problems (Petry, 2006).

Social deprivation (poverty, marginalization). Social and economic marginalization has been found to correlate with a host of negative conditions, including problem gambling and many types of crime (Barnes et al., 1999; Collins, 1996; Courtwright, 1982; Haroon & Derevensky, 2001; Lash et al., 2001; Levine, 1978; Musto, 1973; Orford et al., 2009; Peele, 1989; Reinerman, 2005; Room, 2003; Rosecrance, 1985; Schmidt & Room, 1999; Shaffer et al., 2002; Shaffer & Korn, 2002; Shaffer et al., 2004; Welte et al., 2004). For many, poverty greatly increases the pressure to augment their income, and gambling seems to promise an easy way to do that.

Age and gender. Male youth are overrepresented in a number of problem behaviours, particularly problem gambling and delinquency, but not in substance abuse (Vitaro et al., 2001). Youth who experience problem gambling typically begin gambling quite early in life (Pagani et al., 2009; Proimos et al., 1998).

In the older adult population, problem gambling manifests itself very differently than it does in the middle-aged or youth. In general, older adults who experience problem gambling are more likely to be female (McCormack et al., 2003), to lack a life partner, to have too much idle time, and to have disabilities (McNeilly & Burke, 2000; Southwell et al., 2008). However, they are less likely to encounter practical difficulties as a result of their gambling (arrests, indebtedness, family problems, etc.) (Petry, 2002).

How common are process addictions?

“Prevalence” is the epidemiological term for the percentage of a population that has a particular problem or addiction.

In the sphere of process addictions, only problem gambling has so far generated extensive (though still contested) prevalence estimates (Griffiths, 2009). Prevalence estimates for any process addiction must always be interpreted cautiously, because of a number of difficulties in deriving them:

- Cultural and societal notions of what constitutes a problem, and at what level, bias definitions and measurements of that problem (Room, 2006). Even within Canada, various cultural communities hold quite different values and beliefs about if and when gambling becomes problematic, for example, and what the causes might be. Abstract concepts may not translate directly

- Process addictions are inherently difficult to define and to measure (Gambino, 2006). For example, when is gambling a harmless pastime, and when is it addictive?
- Prevalence estimates typically conflate types of problem gambling, as well as the degree of problem severity, rendering the data of questionable use in forecasting demand for treatment (Blaszczynski & Nower, 2002; Petry & Armentano, 1999). Such confounding typically affects estimates of other process addictions as well.
- Researchers may have an unconscious or deliberate intent in mind, resulting in overestimates for their area of interest (Ladouceur et al., 2005).
- Input from clinicians tends to be impressionistic rather than empirical or quantitative.

For all these reasons, prevalence estimates are tenuous and require interpretation, although, as noted, the data from problem gambling are thought to be of greater validity than data for other process addictions. ([Definitions and Prevalence of Gambling and Problem Gambling](#) will provide the reader with a more detailed discussion).

Prevalence rates vary, depending on which geographical/cultural area is surveyed, what age groups are surveyed, when the survey is taken, whether the rate is for “lifetime” or “point” (current) involvement, and how terms like *moderate risk*, *problem case*, and *pathological case* are defined.

For Ontario, a fairly typical Canadian jurisdiction, 2.6 per cent of the adult population are at moderate risk for developing a problem with gambling and a further 0.8 per cent are affected by problem gambling for a total of 3.4 per cent (Wiebe et al., 2006). This is close to the mid-range for figures from various parts of the world. Among Ontario teens ages 15-17, 3.9 per cent are affected by problem gambling (White et al., 2007) and of Ontario students, grade 7 – 12, 2.8 per cent (about 29,000 students) have a gambling problem (CAMH, 2010). Among Ontario older adults, 2.1 per cent have a moderate or severe gambling problem (Wiebe et al., 2004).

Here are some prevalence estimates for other process addictions:

- **Sex**— approximately three to six percent of adults in the US are affected by compulsive sexual behavior (Kaplan & Krueger, 2010)
- **Work**—31 per cent of working Canadians aged 19 to 64 identify themselves as workaholics (Keowan, 2007)
- **Video games**—10.3 per cent of Ontario students (about 97,000 students), grade 7-12, have a video gaming problem (CAMH, 2010)

One researcher (Griffiths, 2009) has offered an educated guess as to the top five prevalence rankings among process addictions: problem gambling (the most prevalent), work, sex, video games and exercise.

How should I assess clients with process addictions?

When a client presents with a process addiction, assessment must accomplish three main tasks:

- survey the full extent of the problem;
- investigate whether process addictions other than the presenting problem are present, since they correlate closely and may impair the subsequent treatment process if not dealt with; and
- judge how ready the client is for treatment.

How should I assess the main process addiction?

A complete assessment for a client who has indicated a process addiction should address the following aspects of involvement (Littman-Sharp, 2004):

- precipitating factors
- current level of functioning
- relationships and work situation
- legal situation
- physical and mental health, both history and current problems
- past treatment
- crisis issues (particularly potential for harm to self or others)
- treatment goals
- motivation level.

Clinicians should be cautious in using diagnostic tools developed for substance abuse in assessing process addictions (Svetieva & Walker, 2008). However, the development of assessment instruments specific to particular process addictions is still in its very early stages, so the clinician will need to use interviewing skills and even intuition to round out the information that available instruments can provide. For the following process addictions, good-quality screens are available:

- **problem gambling**—South Oaks Gambling Screen (Lesieur & Blume, 1987) and the Canadian Problem Gambling Index (Ferris & Wynne, 2001), both of which have versions specially tailored to adolescent clients
- **exercise addiction**—Exercise Addiction Inventory (Terry et al., 2004; Griffiths et al., 2005); Exercise Dependence Scale (Hausenblas & Symons Downs, 2002)
- **shopping/buying addiction**—Faber & O'Guinn scale (Faber & O'Guinn, 1992); Shopping Addiction Subscale (Freimuth, 2005)
- **computer/Internet addiction**—Freimuth screening tool (Freimuth, 2005, pp. 85–87)
- **video game addiction**—See Griffiths and Meredith (2009)
- **sexual addiction**—Sexual Addiction Screening Test (Carnes, 1989)
- **workaholism**—Robinson Work Addiction Risk Test (Robinson, 1998, pp. 52–54)

Assessment advice is available for assessing eating disorders (Garner & Gerborg, 2004), culture-specific issues (Blume et al., 2005) and obsessive-compulsive

disorders (Stein & Lochner, 2008). Risky behaviour can be documented with the Risk Behavior Diagnosis (RBD) scale (Witte et al., 1996).

How should I assess process addictions other than the main presenting problem?

The best predictor for a client having a given process addiction is evidence for their already having another process addiction. Such addictions overlap, conceal and substitute for one another, and may sabotage treatment for one addiction if any others are not identified and addressed. Clients may not necessarily view all of their process addictions as problems, or may fail to mention them for other reasons (Freimuth, 2005). Sometimes it isn't clear what the addiction even is (e.g., Griffiths, 2008, asks, is an Internet gambler addicted to the Internet, gambling or both?). Different pathologies may produce identical symptoms (Blaszczynski & Nower, 2002), and the same pathology may show up in different symptoms from client to client (American Psychiatric Association [APA], 1994). How, then, should clinicians handle this concern?

The Addictive Behaviors Questionnaire (Malat et al., 2010) can quickly flag a broad range of problematic behaviours. Rather than a proper diagnostic tool, it is essentially an early-warning system that a client may be experiencing difficulties in certain areas. The clinician may then probe for further information about the client's involvement in those areas, either with specific screens or interview questions.

How should I assess the client's readiness for treatment?

There are as yet no process addiction analogues to the Treatment Improvement Protocols (TIPs) for substance abuse (Center for Substance Abuse Treatment [CSAT], 2009), although clinicians may find TIPs helpful in suggesting aspects of treatment readiness to explore with the client.

Treatment readiness is complicated to assess. Even though a particular process addiction may be causing a client considerable harm, the client may not specify it as an acute problem for a number of reasons. The client may not recognize the behaviour as an addiction, or may consider the behaviour too disreputable to admit to. Other issues, particularly other process addictions, may squeeze that particular behaviour out of the spotlight. Or the client may concede that the behaviour is a problem, but may not yet have reached the stage of being willing to work on it—even if there is a willingness to tackle other problems (DiClemente, 2003). (For example, the client may demonstrate willingness to work on, say, a gambling problem but remain unmotivated to address a sexual addiction or substance abuse, even if the latter are causing more serious life issues.) The best predictor of treatment success is not clients' professed willingness to change per se, but their ability to specify behaviours they are willing to perform or avoid in order to effect change (Bertholet et al., 2009).

Some theoretical approaches to process addictions (especially negative-reinforcement models) and the mutual-aid (12-step) movement view it as necessary for a client to have “hit bottom” before treatment can be effective. Until then, it is thought, motivation for change cannot overpower the entrenched and reinforced habits that sustain the process addiction. It takes a fair amount of suffering, degradation and hopelessness to render the client desperate enough to see the futility of the addiction (Jacobs, 1986; Lesieur & Custer, 1984).

Unfortunately, waiting for clients to hit bottom may erode many of the strengths they could bring to treatment that increase their odds of success—social stability and high cognitive and psychosocial functioning, for example (Marlatt et al., 1988). In any case, “bottom” appears to vary from client to client, so that it can only be identified in retrospect, and then rather tautologically (“The client changed, so the client must have hit bottom”). This is especially true of adolescents, where there are no common criteria for defining what hitting bottom means (Derevensky & Gupta, 2000).

It is probably best to proceed to treatment with whatever level of motivation or stage of readiness the client can manage, settling for harm reduction if the client is not prepared to attempt a full eradication of the problem(s). The more thorough the screening for treatment readiness, the more realistic the expectations of both clinician and client as treatment begins.

How should I treat clients with a process addiction?

Assuming that assessment has yielded enough information, both objective (nature and degree of pathologies and harm) and subjective (the client’s recognition of the problems, and readiness to address them), treatment can commence. The first task is to come to an agreement with the client about which goals will be pursued.

How are treatment goals established?

Recovery from process addictions is a phenomenon that goes on to a great extent independently of the clinician. Indeed, it can be said that recovery is the process that prompts clients to seek treatment in the first place—if they seek it at all—not something the clinician conjures up. Clients move through a continuum of change, from coming to understand their problem, to changing their behaviour so as to reduce or eliminate it. Because the understanding must usually precede the behaviour change, clinicians can’t force the process, they can only seek to help it along (DiClemente, 2003; DiClemente et al., 2000; Vaillant, 1983). Clients must themselves decide if they wish to be rid of a process addiction. Sometimes they may want merely to alter the negative consequences of their behaviour, not the behaviour itself—a client-initiated form of “harm reduction” (Marlatt et al., 1988, p. 238; Hook et al., 2008).

Since a process addiction so often appears in tandem with other substance or process addictions, this entire constellation of problems must to some extent be treated as a package when determining what is to be attempted in treatment (Carnes et al., 2005, p. 111; Freimuth, 2005; Nightingale & Fischhoff, 2001). Failure to do so may result in another addiction problem flaring up to take the place

of the one treatment is focused on. So it is crucial, particularly with younger clients, to keep other actual or potential problems in mind, and to aim for a broad improvement through healthy changes in lifestyle, not a narrow concentration on one issue such as gambling (Bierman & Montminy, 1993; Derevensky & Gupta, 2000; DiClemente et al., 2000; Gupta & Derevensky, 2000; Lerner & Castellino, 2002). That being said, the problems that are causing the most harm should normally receive the most urgent attention (Carnes et al., 2005; Weis, 2004).

Abstinence may or may not be a realistic and suitable treatment goal (Behrendt et al., 2008; Dickson et al., 2004; Griffiths, 2004; Leslie, 2008, p. 147; Peele, 1989, 2003). (Indeed, with some process addictions, particularly eating disorders, abstinence could be highly undesirable!) Sometimes it is sufficient to settle for a significant reduction in the amount of harm the client's gambling is causing, or to substitute less harmful behaviours for the problematic ones. Factors like the clinician's theoretical orientation, the client's willingness to change, and the perceived underlying causes of the problem all come into play here.

Since culture affects clients' willingness to seek help in the first place, and their perception of their problems, it will have an impact on goal setting, as will gender (Weis, 2004). This is probably less of a concern with gambling than with behaviours like eating disorders (Garner & Gerborg, 2004), workaholism (Berglas, 2004) and compulsive shopping (Dittmar, 2004), but it should be kept in mind.

Finally, restrictions on the length and nature of treatment (clinic philosophy, number of sessions covered by insurance, etc.) may impose constraints on what can be attempted in treatment.

What should happen in treatment?

Here is an outline two researchers (Gupta & Derevensky, 2000, pp. 333–337) developed of what should happen in problem gambling treatment that should also prove appropriate, *mutatis mutandis*, for the treatment of other problem behaviours:

- 1) understand the motivation for gambling;
- 2) establish a baseline of gambling behaviour, encouraging a decrease;
- 3) address the client's cognitive distortions;
- 4) establish underlying causes of stress and distress;
- 5) address underlying depression;
- 6) evaluate and improve coping skills;
- 7) restructure free time; and
- 8) determine the outcome, and prevent relapse.

Assuming some such conception of the process is reasonable, which therapeutic approach will yield the most effective results? Psychoanalysis and similar "depth" approaches have not proven very useful with addictions, likely because addictions cloud the client's ability to perform the necessary introspective therapeutic work (Giugliano, 2009).

For clients with poly-addictions, addiction interaction workshops may prove helpful (Carnes et al., 2005).

The mutual-aid (12-step) programs created for particular behavioural problems (e.g., Gamblers Anonymous, Sex and Love Addicts Anonymous, etc.) may serve as an alternative or an adjunct to professional therapy (Lesieur & Custer, 1984). (Parallel groups such as Gam-Anon exist for those affected by the client's problem.) They cost nothing to attend, they offer social support (friends and social networks, productive ways to spend time, morale boosting, etc.) and they may provide insights and information "from the bottom up" that clinicians might not be aware of. Moreover, they will continue to bolster the client's recovery after therapy is terminated (Walker, 1992, 1993). However, 12-step programs are not for everyone, so it is best to let the client decide whether to get involved (Littman-Sharp, 2004).

While psychodynamic, pharmacological and family- and marital-focused treatments are sometimes appropriate for behaviour problems (Petry & Armentano, 1999), the most popular and effective approach is some variant of cognitive-behavioural therapy. This approach grew out of learning theory, especially work on social learning. It may include a variety of techniques, such as (Littman-Sharp, 2004, p. 692–701):

- motivational interviewing
- the matching of therapy to the client's current state of change
- brief counselling focused on clearly defined solutions
- the development of coping skills for high-risk situations
- cognitive restructuring.

Given the frequency of addiction substitution, cognitive-behavioural clinicians need to ensure that clients understand the ways in which a range of addictions may interact (Carnes et al, 2005). And, in general, they should check that all labels and terms they use in therapy are clearly understood by the client (Griffiths, 2005).

How can I prevent my client from relapsing?

There is still debate among researchers about how "chronic" process addictions really are. Some would say that the client may "recover" but never be truly "cured." Someone who has been addicted is at far greater risk than the average person of (re)turning to the problem behaviour, and relapse at some time or another probably happens to the majority of clients.

Even if treatment succeeds in reducing or eliminating a process addiction, there is a risk of "replacement" process addictions arising after therapy if the broad range of potential and actual problem behaviours has not been addressed (Carnes et al., 2005; Freimuth, 2005; (Malat et al., 2010). Follow-up and aftercare can spot early indications of such substitutions and intervene to prevent a new process addiction from taking over.

Rituals that provide counter-behaviours to harmful behaviours may be important (Schneider et al., 2005). For young clients, who have difficulty envisioning long-term outcomes, therapeutic work on anticipating what change will be like is often beneficial (DiClemente et al., 2000, pp. 304–305).

Mutual aid (12-step) programs may be particularly helpful to clients following treatment, provided they don't focus too exclusively on particular issues, like gambling. The social support they provide can fill the vacuum created when treatment ends (Hook et al., 2008).

Expect to see some of the client's psychological concomitants to his or her main process addiction disappear after treatment, while others remain (Freimuth, 2005). Be particularly alert for negative affects that may prompt the client to "self-medicate," since this may duplicate the psychological circumstances that fostered problem behaviours in the first place. The lack of physical limits in process addictions makes relapse even more threatening than it is when dealing with substance addictions—someone with a gambling addiction who relapses, for example, can instantly cause far more harm than a substance abuse relapse is likely to produce in the same period of time (Ferentzy et al., 2006).

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