Interactions Between Substance Use and Sexual Behaviours for Women Receiving Alcohol and Other Drugs Services

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Literature indicates that addressing interactions between substance use and compulsive behaviours can improve outcomes for chemical addiction counselling, mental health and physical health. This paper presents the results of a survey that explored (a) how frequently interactions between problematic sexual behaviour and substance use are presented by women receiving Alcohol and Other Drug (AOD) Services, (b) how sexual behaviour is assessed in AOD Services, and (c) what treatment options are available. All respondents indicated having observed at least one interaction between substance use and problematic sexual behaviours, though responses were variable. However, there was not a consistent approach to assessment or treatment for interactions of substance use and sexual behaviour. To enhance the therapeutic value of AOD Services, counsellors may benefit from continuing education about the interactions of addictions, and development of a standardised method to address problematic sexual behaviour.

While working in a New Zealand AOD Service in 2006, the author worked with female clients who discussed individual interactions between sexual behaviour and their substance use. For example, one client relied on a combination of alcohol, sex and a hot tub to manage her arthritic symptoms. Another female client reported that she had sex with men who would provide her with alcohol, a behaviour that potentially put her physical health at risk. Having encountered these scenarios, and feeling relatively unprepared and underqualified to address the issues linked to sexual behaviour, the author began to seek therapeutic resources, with little success.

A review of the current literature addressing sexual addiction revealed an emerging area of research, particularly in regards to interactions with substance dependence. This information will be presented, followed by a summary of a survey that was sent to AOD counsellors in New Zealand exploring their professional interactions with female clients who presented with problematic sexual behaviours interacting with problematic substance use. Future implications will be discussed.

Behaviours, such as gambling, overeating, sex, exercise, videogame playing, internet use, work (Griffiths, 2005), acts of kleptomania, compulsive buying and acts of pyromania (Schmidt, 2005) can be addictive and can interact with chemical addictions (Carnes, Murray & Charpentier, 2005; Eisenman, 2004; Schneider, Sealy, Montgomery & Irons, 2005). In order to provide the most effective treatment for substance use disorders, health care providers need to identify and address all chemical and behavioural addictions that a person has, rather than one addiction in isolation (Carnes, et al., 2005; Schneider, et al., 2005).

The literature reveals important parallels and interactions between substance dependency and problematic sexual behaviours (Appel, Piculell, Jansky & Griffy, 2006; Lin, Li, Yang, Fang, Stanton, Chen, Abbey & Liu, 2005; Plant & Plant, 2003). For example, both give pleasure, both serve social, cultural and emotional purposes and both may become problematic and/or compulsive. Griffith (2005) argues that behavioural addictions and chemical addictions share characteristics of salience, mood modification, tolerance, withdrawal, conflict and relapse. *Salience* means that the activity becomes the most important activity in a person's life and dominates thinking and behaviour. *Mood modification* is defined as a subjective experience ("buzz" "high" "escape" "numbing") and/or a consistent shift in mood. The development of a *tolerance* means that an increased amount of the same activity is required to achieve desired effects. *Withdrawal* describes the unpleasant feelings or physical effects when an activity is discontinued or suddenly reduced. For example, it is reported that 65 percent of pathological gamblers experience withdrawal symptoms, such as insomnia, headaches, breathing difficulty, chills, heart racing, loss of appetite, physical weakness, upset stomach and muscle aches. Addictions also result in interpersonal and intrapersonal *conflict* as a result of the behaviour. Finally, there may be *relapse*, a repeated reversion to earlier patterns, after the behaviour is reduced for a period of time.

Neurobiological research further substantiates the link between chemical and behavioural addictions (Plant

& Plant, 2003; Schmitz, 2005). The amygdala is recognized as having a role in mediating positive and negative reinforcement and is involved in emotional response. Neurotransmitters involved in reward pathways include dopamine, opioid peptides, glutamate and GABA. The mesocorticolimbic tract is involved in cravings and reinforcing properties.

"Sexual addiction", "sexual compulsivity", "hypersexuality" and "sexual dependency" are terms used in literature to describe excessive sexual behaviour that can be problematic for the individual. The term "sexual addiction" is a relatively new concept and is not included in the American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders, 4th edition, (DSM-IV) (1994). Therefore, researchers have generally explored the phenomenon of sexual addiction and/or sexual behaviours using diagnostic criteria that correspond to features of chemical addiction (Carnes, Schneider & Ravetti, 2000; Schneider & Ravetti, 2000; Wines, 1997). In order for sexual behaviour to be classified as an addiction, there must be features of 1) loss of control (compulsivity), 2) continuation despite adverse consequences, and 3) obsession or preoccupation.

Several authors emphasise the importance for health care providers to screen for, or assess, sexual behaviour in individuals who present with substance use problems (Carnes, et al., 2005; Nusbaum & Hamilton, 2002; Pinhas, 1987). There is recognition that it is important to address both sexual addiction and substance use behaviour to ensure effective treatment (Carnes, et al., 2005; Plant & Plant, 2003). Carnes, et al., (2000) found that "sex addiction is a key factor in recidivism in other addictive illnesses." Unidentified, compulsive sexual behaviour may act as a trigger for substance use.

Carnes, et al., (2005) proposed a theoretical framework from which to conceptualise addiction interaction and facilitate clinical intervention. They describe ten distinct ways in which multiple addictions can interact, with a specific focus on sex addiction. These include cross-tolerance, withdrawal mediation, replacement, alternating addiction cycles, masking, ritualizing, intensification, numbing, disinhibiting and combining. The model was developed to provide a clear, discernable understanding of addiction interactions to health care providers and clients (Carnes, et al., 2000). Therefore, it seemed to be an ideal tool to structure preliminary exploration of the current practice issues regarding the interaction of problematic sexual behaviours and problematic substance use for female clients, encountered in New Zealand AOD Services.

Objectives

The overall objectives of this study were to (a) explore AOD counsellors experience of female client interactions of substance use and sexual behaviour, (b) explore assessment procedures currently used to address sexual behaviour, and (c) explore which treatment strategies are currently used to therapeutically address sexual behaviour in the AOD setting.

Method

A survey format was used to meet a constrained time frame available for this study. The survey was reviewed by three health care providers and a university instructor. It was designed to be brief, to respect time restraints of counsellors, and to elicit reflection on past observations and experiences to which the counsellor may not have overtly attended at the time. Each question provided a section for comment or additional information.[1]

Two introductory letters and two surveys were mailed to each of the twenty-one District Health Board (DHB) AOD Services in New Zealand, using addresses listed on the Ministry of Health government website (Ministry of Health, 1994). Each AOD Service was contacted by telephone with a reminder of the return date for the survey.

Respondents were asked to consider their responses according to problematic "sexual behaviours" and problematic "substance use". Considering that "sexual addiction" is not recognised in the DSM-IV, and many clients in AOD services do not receive diagnoses from psychologists or psychiatrists, adherence to diagnostic criteria was not required for the purposes of this survey.

To elicit examples of interactions between sexual behaviour and substance use, the ten interactions described by Carnes, et al., (2005) were summarised. These descriptions are listed in Table One. Each respondent was asked to rate the frequency with which each interaction of sexual behaviours and substance use behaviours was observed in their professional practice. The frequencies were defined as (a) frequently (i.e., "You have observed this interaction in approximately 60 to 100 percent of women that you counsel for substance use issues"), (b) occasionally (i.e., "You have observed this interaction in approximately 30 to 59 percent of women that you counsel for substance use issues"), (c) infrequently (i.e., "You have observed this interaction in approximately 1 to 29 percent of women that you counsel for substance use issues"), (d) never, and (e) don't know.

Respondents were also asked to indicate the way(s) in which sexual behaviour was assessed within the service setting. Respondents were instructed to select all that applied; therefore, the totals in the results will reflect this fact. The options for assessment of sexual behaviours were (a) included in formal assessment; (b) not a component of formal assessment, but is assessed informally; (c) discussed only if client brings it up; (d) not assessed under any circumstance; (e) assessment of sexual development; and (f) assessment of arousal template (i.e., the total thoughts, images, behaviours, sounds, smells, sights, fantasies and objects that arouse a person sexually).

Finally, respondents were asked to indicate how sexual behaviour was addressed therapeutically within the service setting. Respondents were instructed to select all that applied. The options provided were (a) it is not addressed in the AOD setting, (b) individual addictions/behaviours are treated separately, (c) addictions/addictive behaviours are treated as an integrated whole, (d) referred to other services, (e) prescription medication, (f) relapse prevention strategies for sexual behaviour established, (g) set clear boundaries around sexual behaviour, (h) education provided regarding the interaction of compulsive behaviours, (i) timeline constructed marking patterns of each addiction/addictive behaviour,

Table 1
Carnes, et al. Framework of Addiction Interaction Disorders[1]

Cross-tolerance	(a) "A simultaneous increase of addictive behaviour in two or more addictions", or (b) when one addictive behaviour is substituted for another and there is a higher-than-expected tolerance for the new behaviour.
Withdrawal mediation	"One addictive behaviour serves to moderate, relieve or avoid withdrawal from another addiction".
Replacement	"One addiction replaces another with the majority of emotional and compulsive features present". A period of six months to two years elapses between addictions.
Alternating addiction cycles	Two or more addiction cycles occur "in a patterned, systematic way".
Masking	"Problematic behaviour patterns are dismissed as a result of being under the influence". One addiction may be used "to cover up for another".
Ritualizing	"The rituals for one addiction are the same or significantly overlap the rituals of another".
Intensification	"Neither addiction separately is sufficient" and simultaneous use is required for satisfaction.
Numbing	"Addictive behaviours that are highly stimulating [are] followed by a collection of behaviours that are calming or soothing". One addictive behaviour may be "used to soothe or numb out" from another arousing behaviour.
Disinhibiting	One addictive behaviour may be used to "lower inhibitions for another" behaviour.
Combining	The mixing of addictive behaviours to prolong or adjust highs.

and (j) education about pleasure neuropathways shared by addictive behaviours.

Results

Sixteen of the forty-two surveys (38%) were completed and returned. In order to maintain confidentiality, respondents were not asked to identify the DHB for which they worked. It is therefore not possible to comment on DHB representation.

The number of surveys received does not allow for making statistical comparisons between demographic features of the respondents. However, there was a great deal of diversity in the respondents. Respondents had between one and 28 years of experience in general AOD Services, and one to fourteen years within the DHB system. The median total years of experience was eight years, with a mode of five years. Level of education ranged between postgraduate certificate, postgraduate diploma and masters degrees. Percentage of caseload that were women ranged from 30 percent to 100 percent. The median percentage of female clients was 62.5 percent, with modes of 40 and 70 percent.

In the frequency section, each respondent indicated observing at least one type of interaction between substance use and sexual behaviours. Table Two shows the number of responses reported within each frequency per interaction. Occasionally, a comment was provided to suggest that either the behaviour was observed, or that the respondent did not know, however, the frequency section was left blank. In this situation, no assumptions were made as to the intentions of the respondent and the frequency was omitted from the results. Similarly, there were examples that seemed to describe another interaction. Again, the frequency rating was left unchanged.

Eleven of the sixteen respondents provided descriptions of the interaction. Several comments were related specifically to interactions of multiple substances, without referring to sexual behaviours, so they will not be presented in this paper. Furthermore, some descriptions seemed to better match with a different interaction. For the purpose of this paper, if a key element was not provided, such as time frame, the description was placed under the interaction heading that it seemed to most accurately demonstrate, as determined by the author. All descriptions provided by respondents regarding how the interaction was observed clinically are included below.

Interactions

Cross-tolerance. This interaction was reported by fourteen respondents. However, none of the written descriptions provided directly referred to a simultaneous increase of both substance use and sexual behaviour or a description of increase in tolerance.

Withdrawal mediation. This interaction was reported by fourteen respondents. Comments included "often when controlling or ceasing alcohol use ... there is an increase in impulsive/ sexual acting out or gambling", and "psychological withdrawal felt when substance use ceases are 'medicated' with new attachments including new relationships, new sexual encounters. Clients often talk of an emptiness when substance use stops and sexual contact/relationships fill this feeling/ this void."

Table 2
Frequency of Interaction Reported

Interaction Type	Number of Respondents									
	Frequently		Occasionally		Infrequently		Never		Don't Know	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Cross-tolerance	4	27%	5	33%	4	27%	1	7%	1	7%
Withdrawal mediation	6	40%	6	40%	2	13%	1	7%	0	0%
Replacement	6	38%	3	19%	3	19%	2	12%	2	12%
Alternating addiction cycles	5	31%	4	25%	5	31%	1	6%	1	6%
Masking	6	38%	6	38%	4	27%	0	0%	0	0%
Ritualizing	7	44%	2	12%	3	19%	2	12%	2	12%
Intensification	2	13%	4	27%	6	40%	1	7%	2	13%
Numbing	3	19%	5	31%	4	25%	1	6%	3	19%
Disinhibiting	4	27%	6	40%	3	20%	1	7%	1	7%
Combining	5	36%	0	0%	4	29%	4	29%	1	7%

Note. Frequency range defined as: frequently = 60:100%, occasionally = 30:59%, infrequently= 1:29%.
Note. Percentages are rounded to nearest whole number, so sums may not total exactly 100%.
Note. Total number of responses may not equal 16, since respondents did not complete all sections.

Replacement. This interaction was reported by fourteen respondents. Many respondents provided examples for this section. However, the descriptions did not clearly indicate a time lapse between addictions. One respondent noted that "many female clients in abstinence-based models of recovery seek out sexual encounters after a period of time after stopping their alcohol or substance use. AA meetings are often a place where this new addictive behaviour begins."

Alternating addiction cycles. This interaction was also reported by fourteen respondents. Several comments seemed to describe this interaction:

> *"One client who had major dissociative disorder was very systematic in her patterns of use – Zoplicone → alcohol → gambling → sexual acting out."*
>
> *"The highs and lows of AOD and sexual addictions mirror each other, as do most addictions."*
>
> *"Prime focus shift from substance use to seeking out sexual contact. Planning, involvement in sexual encounters and then recovery time that may include guilt feelings, anger and then determination to seek out a new experience quickly to cover these feelings."*
>
> *"Shame often has the woman returning to alcohol and drugs. Then to change back to sexually risky and inappropriate way to help form 'meaningful' relationships."*
>
> *"Mostly seen with sex industry workers. Other clients it seems the prime focus of one addiction takes precedence. However, alcohol is the substance that often is used in this alternating addiction cycle. Alcohol intoxication is often seen as the reason for sexual behaviour (the excuse) but both are sought out equally."*

Masking. This interaction was the only one to be reported by all sixteen respondents. One respondent stated that "work in the sex industry is often 'normalized' as being part of what you have to do to be able to afford the habit. Wouldn't do it if you didn't have a drug habit. However, a number of clients have continued in the sex industry after stopping their drug use as they state they enjoy the work. 'Which came first – the sex addiction or drug addiction.' Also, alcohol use to intoxication used an excuse for sexual encounters."

Ritualizing. Twelve respondents reported this interaction. The following quote describes the ritual aspect of sexual behaviour, but may be more accurately defined as a replacement interaction, depending on the time lapse. "Where sexual behaviours has replaced substance use the prime focus behaviour i.e. planning day around impending sexual act, getting ready, going out, definitely occur."

Intensification. Twelve respondents reported this interaction. However, no description was provided that included sexual behaviour.

Numbing. This interaction was also reported by twelve respondents. One respondent noted this interaction is "mostly used with partners or people they know. Intoxication [that] results in sex with strangers [is] not used for calming or soothing." Others associated "sexual impulsivity then alcohol abuse" and "Opiates, GHB [associated with] sexual arousal."

Disinhibiting. Thirteen respondents indicated they had encountered this interaction. Examples included:

> *"Alcohol disinhibiting gambling or sexual impulsivity."*
>
> *"This definitely happens, they voice regret when they dismiss [the behaviour] ... often if*

drinking stops, behaviour stops but sometimes if they want behaviour to continue then [they] drink again."

"Often to create [an] ambivalence of which it makes everything ok."

"Alcohol or benzodiazepines used as 'reasons' that sexual encounters have occurred rather then just being able to say a choice was made re: sexual behaviour. Opiate use often used to provide reason why sexual behaviour has reduced."

"Substance use to enable clients to work in sex industry."

Combining. Only nine respondents reported this interaction, while four reported that they never observed this interaction. One respondent provided and example that "'P' [methamphetamine] users will often stay or want/need to stay highly stimulated, either chemically or sexually."

Assessment

Of the sixteen respondents, four indicated that sexual behaviour was included in the formal assessment, nine reported it was assessed informally, eight replied that it was assessed only if brought up by the client, and only one person replied that it was not assessed under any circumstance. Note that four respondents indicated that sexual behaviour was assessed informally *and* only if brought up by the client. Deeper exploration of sexual behaviour was reported by two respondents, who indicated assessment of sexual development. No one, however, reported assessing the arousal template.

There were some comments pertaining to the timing of assessment of sexual behaviour, such as "when appropriate" and "after a rapport has been established".

Treatment

Three respondents replied that sexual behaviour is not addressed therapeutically in the AOD setting. Of the remaining thirteen respondents, ten reported providing treatment for substance use and sexual behaviours using an integrated approach, and eleven provided education about the interaction of behaviours and substance use. Only one person indicated that prescription medication was used. The use of all other therapeutic approaches was reported by between two and six respondents. Three respondents indicated referral to other services was available. Referrals to address sexual behaviour included to ACC, psychologists, family and relationship counselling and sex therapists.

Comments

Additional comments and descriptions were provided, and these seemed to fall into three themes. One concerned relevance to the AOD setting. The second concerned using sex as a form of payment for alcohol. The third suggested links to underlying mental health issues.

Relevance to the AOD Setting

The issue of relevance to the AOD setting varied from one end of the spectrum to the other. One respondent stated that "WE ARE AN [Alcohol and Other Drug] SETTING", indicating that sexual behaviour is not assessed under any circumstance and not addressed therapeutically in the AOD setting. On the other hand, another respondent stated "I think this is an area that there is lots of room for time to be given to it in our setting". Some respondents acknowledged that they may not have noticed the interactions because of a lack of "awareness or training of sexual behaviours alongside addiction." It was stated that interactions may "not [be] brought as much into the light as necessary – possibly due to how much I am consciously aware of this happening." These comments seem to indicate that there are different opinions about the relevance of addressing issues pertaining to sexual behaviour in the AOD setting. There is also an acknowledgement that education and training may be beneficial.

Sex as a Form of Payment

The second theme that emerged was the observation that some women receiving AOD Services reported risky sexual behaviour as "a form of payment for drugs and alcohol they can't afford" or as a means to "get money for their drug addiction". It was also acknowledged that "intoxication may lead the woman to act out sexually, however, this is not often an intentional addictive satisfaction need". While these may not be indicative of a sexual behaviour interaction, it may support a role for AOD counsellors in health promotion, particularly for an at-risk population who may have neglected their physical health needs for a significant period of time.

Concurrent Mental Health Disorders

The third theme was an exploration of factors that may be associated with an interaction of substance use and sexual behaviours. A mental health diagnosis was the factor most frequently referred to, including social phobia, anxiety, depression, bipolar disorder and borderline personality disorder.

Limitations

The survey was designed to determine the frequencies of interactions between problematic sexual behaviours and problematic substance use for female clients, as well as to provide opportunity for comparison of counsellor demographics. Unfortunately, there are some limitations to the reliability and validity of the information obtained. In addition, the small sample size prevents comparisons of factors between respondent demographics.

Surveys were completed on a voluntary basis, and this introduces a risk for sample bias. It is possible that the surveys were completed by counsellors who were more aware of and concerned with sexual behaviour issues for female clients. This can result in an over-estimation, as compared to the general population under consideration. A second limitation is that the reported frequencies of the interactions lack strong reliability. Descriptions were not provided for all responses. When provided, they often did not include a component of sexual behaviour.

Future Implications

The Comments sections provide interesting information regarding the current issues faced by AOD counsellors regarding problematic sexual behaviours. Firstly, the responses indicate that counsellors are, at least to some degree,

able to identify the occurrence of interactions between problematic sexual behaviours and substance use.

Secondly, certain interactions may be more prevalent than others. For example, all respondents reported encountering "masking" in the AOD Service, but only nine reported observing "combining". In addition, respondents provided several examples of "alternating addiction cycles" and "disinhibiting". The restricted variety and accessibility of drugs in New Zealand may influence the prevalence of interactions. On the other hand, some interactions may not be adequately identified by informal assessment, requiring skilled probing and elicitation instead.

Thirdly, the survey revealed great variability between respondents in the assessment procedures for sexual behaviours, the therapeutic interventions available, and the perceived relevance of addressing sexual behaviours in the AOD setting. It is likely that health care providers who view sexual behaviour as an important factor are more likely to include it in the formal assessment process. Furthermore, formal assessment of sexual behaviours would likely result in increased awareness of interactions.

Fourthly, respondents included observations that some clients engaged in sexual behaviours that were risky, but not necessarily addictive in nature. Considering that fewer than nineteen percent of respondents reported referring clients with problematic sexual behaviours to other agencies, this indicates that the primary setting to address the issues associated with risky sexual behaviour is the AOD setting.

Finally, some respondents observed that there are certain special considerations in regards to women who present with problematic sexual behaviours and problematic substance use, including potential mental health disorders or involvement in the sex trade. These factors reinforce the need for a holistic approach to health care practice issues.

AOD counsellors in New Zealand clearly encounter female clients who present with problematic sexual behaviours. While this survey focused on women, it is important to consider that research indicates there are three times as many men with sex addiction as women (Carnes, et al., 2000). Since concurrent intervention for problematic sexual behaviours can improve the effectiveness of substance use counselling and reduce the risk of relapse (Carnes, et al., 2005; Plant & Plant, 2003), it is important that counsellors, managers and funding bodies recognise the need to expand addictions services beyond the parameters of traditional AOD services.

AOD Services may consider including sexual and other compulsive behaviours as part of the formal assessment process, to ensure that all factors associated with recovery and relapse prevention are adequately addressed. The feasibility of assessing sexual health risk in AOD settings is supported in the literature (Siegal, Leviton, Cole, Wang, Bachmann & Hook, 1998).

Cort, Attenborough & Watson (2001) acknowledge that "practitioners remain ambivalent about actively broaching sexual issues and there is a potential for clients' needs to go unmet." The factors that influence health care professionals' willingness to obtain a history of sexual health and sexual behaviours include clinical knowledge, personal attitudes towards sexuality, communication skills, perspectives on the professional role and tasks, lack of knowledge of ethical and legal issues, time constraints, personal comfort and continuing education opportunities (Couldron, 1999; Gamel, Davis, Hengeveld, 1993; Skelton & Matthews, 2001).

It is essential for health care providers to provide a comprehensive and safe therapeutic process for clients who receive AOD services. In order to enhance competent AOD practice, knowledge and skills must continually be developed. This includes knowledge pertaining to the assessment and treatment of substance use issues, as well as knowledge of problematic addictive or compulsive behaviours. Furthermore, an understanding of how addictions interact, and the clinical utility of identifying the interaction of behaviours and substance use is essential. Specific to sexual behaviours, clinical knowledge is required regarding assessment requirements, therapeutic approaches, sexual development, characteristics that distinguish between healthy versus problematic sexual behaviours, knowledge about sexual health and disease prevention, counselling strategies and awareness of alternative service providers (Cort, et al., 2001). Finally, ongoing enhancement of communication skills and development of knowledge regarding ethical and legal issues will strengthen the counsellor's ability to addressing sexual behaviour in an AOD setting.

From a harm minimisation perspective, regardless of whether sexual behaviour is classified as a problematic behaviour or an addiction, it can potentially impact the physical and mental health of clients receiving AOD Services. Carnes, et al., (2000) report findings that a 45 percent of female sex addicts acquired a sexually transmitted infection as a result of their sexual behaviour. Unwanted pregnancy may also be a consequence of risky sexual behaviour (Roller, 2007). Furthermore, considering the broad spectrum of factors that are typically addressed in an AOD Service, including legal consequences, parenting, relationships, violent behaviour and self-esteem, it seems that sexual behaviour can realistically be incorporated as a component of the AOD Service.

Further research is warranted to provide valid and reliable information pertaining to the interaction of problematic sexual behaviours and problematic substance use of AOD clients in New Zealand, including male clients. It would be important to include AOD Services within DHBs, Iwi (Māori tribe) organisations and residential rehabilitation facilities in future studies. Furthermore, there is potential to contribute to the understanding of clinical issues associated with sex addiction.

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Notes

1 A complete copy of the survey is available from the author.