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Effective Intimacy?

Evaluating Intimacy Focused Therapy for 'Out-of-Control' Sexual Behaviour

A thesis presented in partial fulfilment of the requirements for the degree of
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This thesis is dedicated to Robyn Salisbury who allowed her therapy approach to be evaluated and enabled this research to be developed.

ABSTRACT

Difficulties with intimacy are considered to be important to the development and maintenance of 'out of control' sexual behaviours (OCSB) yet the small body of research into OCSB therapies has not included an intimacy-based therapy approach (Reid & Woolley, 2006). Specialist service Sex Therapy New Zealand (STNZ) uses such an approach which was formalised by the researcher and termed 'Intimacy Focused Therapy' (IFT) for the purposes of being evaluated in the current study. A single-case design with non-concurrent multiple baseline across participants was used with 12 volunteer men with OCSB who completed up to 12 sessions of IFT with STNZ therapists. Participants rated their sexual behaviour, negative consequences of sex, adult attachment, and fear of intimacy at baseline, post-therapy, and over a three-month follow-up phase. Weekly self-report data was collected on the duration and frequency of sexual activity as well as associated distress. Compared to baseline, there were improvements in participants' control over their sexual behaviour, reductions in negative consequences experienced, as well as reduced distress regarding sexual behaviour post-treatment. Changes in fear of intimacy and attachment were less obvious, although dismissing and preoccupied attachment each slightly reduced or increased for several participants. Secure and fearful attachment showed limited change in either direction. Weekly sexual behaviour did not follow a clear pattern of change, although some behaviour's reduced for some participants over therapy while others stayed the same or increased. Follow-up data showed that changes at the end of therapy were largely maintained or continued over three months post-therapy. These individual outcomes support the potential effectiveness of IFT as a treatment for OCSB, but do not support the notion that improvements to fear of intimacy or attachment are affected by this approach. Future research that examines IFT over a longer duration of time, utilising measures that capture the mechanisms that effect change in this therapy approach, are recommended to establish the role of intimacy and attachment in therapy for OCSB.

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PREFACE

It is good to have an end to journey toward; but it is the journey that matters, in the end. (Le Guin, 1994, pp. 220)

The Research Journey

I was a young 18 year old enrolled in a year of early childhood training when I was first exposed to theories of human development and psychology. It was this initial training, and my interest in working with people experiencing substance use disorders, that led me to a careers advisor to find out my training options in this field. I selected clinical psychology over an alcohol and drug qualification because it provided evidence-based mental health training that I saw as vital in such a job, and, in 2002, embarked on a BA majoring in psychology with the equivalent of a minor in rehabilitation.

With my career goal underway, I also took the initiative to contact local Clinical Psychologist and Sex Therapist Robyn Salisbury to ask her for a job. Uncannily she had been just about to place an advert looking for an Administrator to a company she was about to launch. The new company was Sex Therapy New Zealand (STNZ¹) and Robyn had entrepreneurially developed the service from having seen the lack of such services for people experiencing sexual concerns, and the lack of training for clinicians to be able to provide these specialist services. After a meeting with Robyn I was hired as STNZ's part-time administrator and thrived in the role for five years, while STNZ became established as a therapy service and training institute that continues to this day in an evolved form.

¹ STNZ is a team of sex therapists that provide a nation-wide service for individuals or couples experiencing any sexual concern, including OCSB. It is also a training institute for therapists wishing to develop competency in working with sexuality issues. In 2002 STNZ was founded by Robyn Salisbury, clinical psychologist (New Zealand Psychological Society, New Zealand Association of Psychotherapists), certified sex therapist (American Association of Sexuality Educators, Counsellors, and Therapists), author of a published case study on OCSB (Salisbury, 2008) and the book 'Staying in Love' (2009). Currently, STNZ is operated by four regional directors. STNZ's training is now available via the University of Auckland.

Once my undergraduate qualification was complete, I also started volunteer work at a local 12-step residential centre for people recovering from substance use disorders and began an Honours degree in Psychology. Here I found a way to combine my interests in both 'addiction' and sexuality by researching what I first understood as 'sexual addiction' as my Honours research project (Faisandier, 2010). In this, I used the term out of control sexual behaviours (OCSB) which encompasses sexual behaviours that have been called sexual addiction, sexual compulsivity, hypersexuality and various other terms by researchers. Robyn and I developed the idea for this project, as she had published a case study about her developing practise model for treating OCSB (Salisbury, 2008).

Through my research, I discovered that Robyn's work in this area was an important development in the OCSB treatment field; however she had not yet had an opportunity to empirically evaluate the effectiveness of her approach. As I was required to conduct further research for the last qualification in my psychology training, a Doctorate in Clinical Psychology, the current study emerged as a step towards evaluating the effectiveness of existing therapies for OCSB.

Chapter One provides a brief introduction to treatment outcome research and a rationale for the current study methodology and the aim of the study.

Chapter Two tackles the ongoing issue of nosology and definition for OCSB. A review of the nosological debate, epidemiological information, and current theories on etiology are presented.

Chapter Three focuses on the existing treatment approaches for OCSB reported in the literature, accompanied by a critical discussion of the effectiveness of these approaches based on the nine studies conducted to date. The gaps in the treatment outcome literature will be highlighted and provide the basis for the current study's rationale.

Chapter Four covers the method that this study utilised. Here the participants of the study are described, the outcome and treatment integrity measures are introduced, and the overall stages of the study are explained. In addition, the data analysis process is discussed including a description of the relevant ethical issues that were considered.

The purpose of Chapter Five is to present the results of the therapy evaluation. This includes the individual results for each participant in terms of changes in sexual behaviours and related variables over time, as well as therapist adherence.

The concluding chapter, Chapter Six, discusses the research outcomes in terms of the study's overall aims. The limitations of the study as well as implications of the findings for both research and practice are identified and discussed.

CHAPTER ONE: INTRODUCTION

Developing enough theories, methodologies, and resources to accurately assess, appropriately treat, and meaningfully prevent compulsive sexual behaviour is a Herculean undertaking that requires a deeply nuanced understanding of many dynamic social, psychological, and biological forces...we've only just begun the work that must be done. (Herring, 2004, pp. 41 - 42)

Overview of Treatment Outcome Research

Treatment outcome research has become critical to the discipline of Clinical Psychology over the past half century, with the emergence of the scientist-practitioner model of applying clinical interventions that are informed by empirical research and support (Kazdin, 2008; Raimy, 1950). Establishing empirically supported treatments and practice has become of central importance ever since Eysenck (1952) famously queried whether psychotherapy had any advantages over no treatment at all, with the implication that therapy might be a redundant service.

In response to this question, researchers set out to evaluate the merits of various therapy approaches and the respected standard for obtaining this information became the rigorously standardised randomised controlled trial (RCT), which could determine a therapy's success under highly controlled conditions (Wells, 1999). In an RCT, participants are randomly allocated to one or more conditions that include an experimental group/s and control group. Group data are averaged to determine statistically significant differences between experimental and control conditions, and effect sizes are used to measure the magnitude of these changes (Kazdin, 2003; Lundevold & Belwood, 2000). Such results determine the efficacy of a therapy, or how well it works in comparison to a control or other condition, in controlled circumstances according to the

statistical analysis and size of the effect (Kazdin, 2003; Wells, 1999). They permit group to population extrapolation of results but not group to individual inferences (Blampied, 2001).

Over the past few decades, it has been argued that RCT findings and the consequent efficacy of a treatment lacks relevance and generalisability to everyday clinical practice, and thus should not be the “sole design” for evaluating psychotherapy or informing best practice (Blampied, Barabasz, & Barabasz, 1996; Blampied, 2001, 2013; Jacobson & Christensen, 1996, p. 1038; Krause, 2011, Wells, 1999). RCT findings, which are based on mean differences rather than the full distribution of outcomes, also overlook individual client results, which are what clinical practice is all about (Krause, 2011).

Other reasons that RCT results are argued to have limited generalisability are that samples are heavily screened for disorder comorbidity and degree of severity, and therefore do not accurately reflect real world clients who often have multiple problems and greater severity of difficulties (Kazdin, 2008). RCTs are also expensive and time consuming, thus making it a difficult research method for those lacking these resources (Lundervold & Belwood, 2000). Additional critiques of the RCT methodology include that it is biased towards structured therapy approaches such as cognitive behavioural therapy (CBT). Less structured therapies, such as psychodynamic or humanistic therapies, are not easily manualised or standardised, and thus became disproportionately researched in that there was less research conducted on them than on CBT (Manning, 2006a). As a result, CBT developed a strong scientific basis while experiential or process therapy approaches appeared in the literature to be less robustly supported (Manning, 2006a).

However a review of eight meta-analyses found consistent and substantial outcomes for clients in psychodynamic psychotherapy, suggesting that psychodynamic practices are as efficacious as CBT (Shedler, 2010). A response to this suggested that Shedler’s study had

“glossed over” limitations of the studies, such as using methodologies that were unable to determine effectiveness or efficacy (e.g., pre-post designs rather than controlled trials), the lack of standardisation, and overpowered effect sizes (Anestis, Anestis, & Lilienfeld, 2011, p.150). Shedler (2011) responded by stating that these were “tendentious arguments aimed at promoting an ideological agenda” (p. 154), which was attempting to continue to portray psychodynamic approaches as not efficacious and lacking a sound scientific base.

These findings coupled with the limitations of RCT’s invited other research approaches to be explored for evaluating treatments. There has been a call for the need to also use alternative methodologies that are robust enough to evaluate whether less structured treatments work, and to capture the nature of real world referrals and treatment settings (Barlow, Nock, & Hersen, 2009; Blampied, 2001). Effectiveness studies have gained renewed favour in light of their ability to establish whether a therapy approach works in everyday settings, including with clients with comorbid and severe difficulties and using non-CBT therapies (Borckardt, Nash, Murphy, Moore, & O’Neil, 2008; Kazdin, 1999). Effectiveness studies can also be low-cost, time-efficient, and flexible to the nature of real world clients and therapy; thus they are practical and easy for clinicians to implement (Lundervold & Belwood, 2000). They also allow novel ideas to be tested and adaptations to be made as developments in the research progress (Blampied, 2013).

The single case research design (SCRD) is one highly appropriate methodology designed to evaluate the effectiveness of a treatment, and has been described as “well suited to opening a productive discourse between practice and laboratory” (Borckardt et al., 2008, p.77). Single case design involves tracking the target behaviours of a client over baseline and therapy phases, and can also include follow-up to determine the longevity of treatment effects. By using multiple baselines that stagger the onset of the treatment phase, and repeating the treatment across more than one client (replication), SCRD is recommended in exploratory treatment outcome research,

as it allows causal inferences about the effects of an intervention on the targeted behaviour (Blampied, 2001, 2013; Borckardt et al., 2008; Christ, 2007; Watson & Workman, 1981).

In terms of 'out-of-control' sexual behaviour (OCSB), there has been very little treatment effectiveness research to date. Thus the aim of this thesis was to evaluate the effectiveness of one approach to treating men with OCSB using SCRD for the reasons outlined above. The following chapter will firstly outline the literature relevant to understanding OCSB. This will include the current ideas about OCSB nosology, definitions, and diagnosis, as well as the available epidemiological information and treatment literature. Etiological factors will be presented and a summary of attachment theory and the importance of intimacy will be discussed. Lastly, the relationship between attachment style, the capacity for intimacy, and life-enhancing sexual behaviour will be presented, which will lead into the rationale for the present thesis.

CHAPTER TWO: UNDERSTANDING OUT OF CONTROL SEXUAL BEHAVIOUR

The concept of OCSB is too complex a form of human behaviour to exist within the province of any one paradigm. (Herring, 2004, pp. 38)

How much sex is too much? How much is enough? And who decides?"
(Groneman, 2000, pp.151)

What is 'normal' or 'healthy' sexual behaviour?

Within clinical psychology, the primary method to determine if a behaviour is 'abnormal' or 'disordered' is to turn to the literature and explore whether the behaviour is statistically infrequent or violates societal or cultural norms, and to assess whether it causes personal distress, leads to impaired function, or is unexpected in the context of the situation (American Psychological Association [APA], 1994). The premise exists that if there is 'abnormal' behaviour there must first be a definition of 'normal' or 'typical' behaviour. In terms of sexual behaviour, this task is problematic as little research has been able to confirm what comprises 'normal' sexual behaviour, beginning with Master's and Johnson's pioneering research published in *Human Sexual Response* (1966) and *Human Sexual Inadequacy* (1970) which focused on the physiological function and dysfunction of sex.

Researchers have also attempted to understand the characteristics of 'optimal' sex. One definition of 'optimal' sex was formed based on responses to semistructured interviews with individuals over age 65 who were in long-term relationships and perceived themselves as experiencing "great sex" (Kleinplatz & Ménard, 2007, p.72). Six themes emerged, suggesting that "optimal sexual experience may involve moments of deep connection in which partners are psychologically and sexually authentic, accessible, embodied, intimately engaged, and responsive to whatever lies deep within themselves and each other" (Kleinplatz & Ménard, 2007,

p.77). However, this research did not consider sexual behaviour outside of long-term relationships, in those under the age of 65, or the frequency, duration, or content of sexual activity engaged in, or solitary sexual behaviours such as masturbation or viewing pornography.

Additionally, the problem with the term 'optimal', as with the term 'normal', is that these are subjective and value-laden terms. Factors such as individual developmental experiences, parental modelling, and sex education messages received impact on the perception of types of sexual behaviour as 'normal', 'optimal', or not, (Zoldbrod, 1998). For example, there is variation between different cultures and the specific sociological time as to whether particular sexual behaviours are considered deviant or problematic within a culture or society (Coleman, 2007; Levine & Troiden, 1988; Reid, 2013).

One example of culture contributing to the construction of sexual norms is seen in Samoa where men who are attracted to men identify as 'Fa'afafine', which translates to "in the manner of a woman" (Vasey & Bartlett, 2007, p. 484). In contrast to Western cultures where such behaviour might be considered to be a 'gender identity disorder' and not widely accepted by society, Fa'afafine experience very little social censure of their gender identity or sexual behaviour as the wider culture is very accepting of feminine males and do not consider them as gay or homosexual (Vasey & Bartlett, 2007). Fa'afafine do not engage in sexual behaviour with each other as they are attracted to and seek sex with heterosexual men, who are masculine in their gender role presentation, and most heterosexual men within Samoan society have experienced sex with someone who is Fa'afafine, which is socially appropriate (Vasey & Bartlett, 2007). This example highlights how culture can contribute towards social perceptions of own and other sexual behaviours.

The particular sociological time also affects perceptions of sexuality as 'normal', and can be tracked, for example, throughout the various revisions of the most commonly used mental health

classification system for clinical psychologists, the Diagnostic and Statistical Manual of Mental Disorders (DSM). In the first DSM (DSM-I; APA, 1952), masturbation, fellatio, cunnilingus, and sexual promiscuity were considered to be diagnosable mental disorders. The 1960s and early 1970s saw a sexual revolution and the societal perception of non-marital and non-procreative sex was destigmatised somewhat (Levine & Troiden, 1988). Thus by DSM-III (1980), the sexual acts of DSM-I were removed and instead the focus moved to low levels of desire, arousal, or orgasm, physical discomfort or pain, and paraphilias or social deviances in sexual behaviour (including homosexuality until DSM-IV; APA, 1994; Sadock & Sadock, 2007). Paraphilias at the time of DSM-III were defined as preferences for nonhuman objects for sexual arousal, repetitive sexual activity with humans involving real or simulated suffering or humiliation, or repetitive activity with non-consenting partners (APA, 1980). DSM-5 updated the paraphilia diagnosis to consider whether or not a paraphilia is a disorder as opposed to non-normative sexual behaviour that is not pathological (e.g., not causing distress or impairment, including harm or risk of harm to self or others; APA, 2013).

DSM-III also considered experiences that interfered with sexual functioning as 'disordered' (e.g., low arousal; APA, 1994). The proliferation of sexually transmittable infections such as herpes, HIV, and hepatitis B in the late 1970s led to increased attention to the possibility that having sex with multiple partners might also be problematic in some instances, in terms of adverse and life-threatening health consequences (Levine & Troiden, 1988). Recent literature in the sexuality field pertaining to the development of DSM-5 focused on whether or not a classification for 'too much' sex (hypersexuality) warranted an entry, with this having been recently rejected in favour of more research in this area (APA, 2013; Guigliano, 2013; Reid, 2013; Samenow, 2013).

'Too Much' Sex?

This idea of 'too much' sex was introduced as 'sexual addiction' to the clinical literature and described the experience of individuals seeking treatment for consensual sexual behaviour that was considered by the individual or others to be excessive or problematic (Carnes, 1983, 1989, 1991). Such behaviour has been colloquially referred to since at least the 1940s with terms such as 'nymphomania' and 'Don Juanism' to describe individuals who engage in frequent sex, often with multiple partners, which goes against perceived societal and culturally-bound norms of monogamy (Levine, 1982). Carnes' term 'sexual addiction', in contrast to previous terms, caused great controversy as it suggested that such behaviour warranted a diagnosis (Zhang, 2012). His book titled "The Sexual Addiction" (Carnes, 1983) provoked strong disagreement and did not sell until its title was adjusted to "Out of the Shadows" as a marketing ploy (Schneider, 2004).

Carnes' contention that sexual behaviour could be classified as an addiction under some circumstances stimulated enthusiastic public and literary debate regarding whether a behaviour that did not involve ingesting a psychoactive substance could cause 'addiction', whether excessive sexual behaviour should be considered pathological, and if so how best to describe and define it (Gold & Heffner, 1998; Zhang, 2012). Researchers focused on determining accurate nosology and a definition for such problems. The associated behaviour included sexual thoughts, feelings, or acts that increased in frequency and intensity sufficiently to hinder personal, interpersonal, or vocational function (Parsons et al., 2008). The expression of these behaviours could involve compulsive masturbation, pornography viewing, or partner sex (paid/unpaid, anonymous, multiple, or monogamous); compulsive use of the internet for sexual purposes and sending sexualised messages and pictures via phones ("sexting"; Weiss & Samenow, 2010, p.

244); exhibitionism, voyeurism, or other fetishes²; dangerous or illegal sexual practices, and time spent fantasising about sex, although typically a range of these and other possible behaviours occur (Carnes & Adams, 2002; Carnes & Schneider, 2000; Hall, 2006; Parsons et al., 2008; Weiss & Samenow, 2010).

One consequence of researchers' enthusiasm to accurately capture the phenomenon that these behaviours comprise was in excess of 30 terms and 100 definitions (O'Donohue, 2001), and more than a decade on, these volumes are likely to have grown further. However, the process of deciding on a diagnostic term and definition is not one to rush, as it results in far-reaching, real-world implications, including how an individual perceives their level of responsibility for their sexual behaviour, societal attitudes towards those with sexual problems, legal and policy decisions, diagnostic classifications, and the selection and funding of treatment approaches (Goodman, 2001; O'Donohue, 2001; Reid & Carpenter, 2009).

For these reasons as well as ongoing disagreement amongst researchers, no diagnostic term has been established for inclusion in any previous DSM or the current DSM-5 (APA, 2013). Carnes' (1983) label 'sexual addiction' has been sensationalised by the media, absorbed colloquially by the general public, and remains the most common term used in the clinical literature. The Chief Editor of the prominent journal in the field, *Sexual Addiction and Compulsivity*, stated that they will continue to use the term as a "valid clinical descriptor" (Samenow, 2010, p.5). The other most frequently used terms include 'sexual compulsivity' (Quadland, 1985), 'sexual impulsivity' (Barth & Kinder, 1987), and 'hypersexuality' (Kafka, 1997). The term hypersexuality was the first such term to be proposed for inclusion in DSM-5 and has growing research support; however a consensus was not reached on whether this type of sexual

² Paedophilia has been omitted from the current study's definition of OCSB, as, although there are similarities with OCSB, this problematic behaviour is associated with unique etiological, assessment, and treatment considerations including legal and safety considerations that fall outside the scope of the current study (Marshall, 1989; Marshall & Marshall, 2001, 2010).

behaviour should have a diagnostic classification, and, if it should, whether the hypersexuality criteria was the most robust to be used (APA, 2013; Reid, 2013). These various terms tend to propose different mechanisms that might underlie 'too much' sex, which will be discussed next.

Obsession, Compulsion and Impulse-Control

The terms obsession, compulsion, and impulsivity have each been used to describe the mechanisms that underlie 'too much' sex (Bancroft & Vukadinovic, 2004; Coleman, 1992; Leedes, 2001). Obsession relates to obsessive compulsive disorder which comprises either or both of obsessions and compulsions according to DSM-5 (APA, 2013). Obsessions in the context of sexual behaviour are described as both 'fantasy' about and a 'yearning' for sex, with the focus being on an internal process rather than an external behaviour or acts (Leedes, 2001). In this view, obsessions may be present without the compulsions, which in the context of sexual behaviour would involve the physical acts of sex as well as intrusive thoughts and images of these acts (Leedes, 2001).

In the literature, sexual compulsivity and sexual impulsivity are often used interchangeably but the underlying mechanisms of the two are suggested to be fundamentally different. While both involve repetitive behaviour in disinhibited states, the driver of sexual impulsivity is sexual risk-taking, pleasure, and gratification while sexual compulsion is driven by obsessive thoughts (e.g., sexual fantasy or cognitions that occur during arousal) which may cause anxiety, and sexual opportunities are sought out to relieve this experience (Kingston & Firestone, 2008; Koob, 2006). A major critique of the application of the term compulsivity to individuals with OCSB has been that not all such individuals experience obsessive thoughts about sex, and many perceive sex as exciting and beneficial (Bancroft & Vukadinovic, 2004). Sexual compulsion serves to relieve anxiety, but many with OCSB pursue sexual experiences for other reasons such as to experience reward (Bancroft & Vukadinovic, 2004).

These criticisms led to the suggestion of the impulse-control framework for OCSB, which is the failure to resist an impulse or drive, or temptation to commit an act that causes distress or impairment to self or other (APA, 2000; Barth & Kinder; 1987). Feelings of tension build up in response to sexual opportunity and gratification or reward occurs in response to the behaviour, often leading to shame and guilt (Goodman, 2001; Guigliano, 2009; Kingston & Firestone, 2008; Koob, 2006). While this characterises some people's experience, others premeditate or plan sexual encounters, such as developing an extramarital affair over time, so OCSB is not always a matter of problems with impulse-control in response to tension (Levine, 2010; Samenow, 2010).

Hypersexuality

In contrast to both compulsivity and impulsivity, hypersexuality is used to describe OCSB where excessive amounts of sexual activity are sought to modulate negative affect states and stress (Gold & Heffner, 1998; Kafka, 2010). Kafka's proposed DSM-5 criteria for hypersexuality are:

- A) Over at least six months the presence of recurrent and intense sexual fantasies, urges, or behaviours that involve three or more of five criteria:
 - 1) Time consumed by sexual fantasies, urges, or behaviours repetitively interferes with other important (non-sexual) goals, activities, and obligations.
 - 2) Repetitively engaging in sexual fantasies, urges, or behaviours in response to dysphoric mood states (e.g., anxiety, depression, boredom, irritability).
 - 3) Repetitively engaging in sexual fantasies, urges, or behaviours in response to stressful life events.
 - 4) Repetitive but unsuccessful efforts to control or significantly reduce these sexual fantasies, urges, or behaviours.

- 5) Repetitively engaging in sexual behaviours while disregarding the risk for physical or emotional harm to self or others.
- B) Personal distress or impairment (resulting from sexual behaviour) in at least one important area of functioning (e.g., social or occupational).
- C) The behaviour (fantasies, urges) is not caused by the effects of an exogenous substance (in particular, dopaminergic or stimulant drugs that may cause hypersexual behaviour).

The term hypersexuality and Kafka's (2010) criteria have been critiqued for focusing on the duration and frequency of sexual behaviour to determine whether sex is problematic (Winters, 2010). The minimum requirement for determining whether behaviour is considered repetitive is not specified. More importantly though, OCSB does not always involve frequent behaviour (Samenow, 2010). For example, one study examining problematic internet pornography use found the baseline mean daily hours for viewing ranged from 0.18 to 3.09 hours across six participants (Twohig & Crosby, 2010).

This is problematic because some people with OCSB report relatively infrequent problem behaviours and a focus on time spent engaging in sexual behaviours overlooks other aspects such as the type and content of sexual behaviour. These behaviours may be incongruent with an individual's values or beliefs and may cause them concern despite the small amount of time spent in the behaviour (e.g., the participant with 0.18 hours per day (10.8 minutes) pornography viewing; Twohig & Crosby, 2010). Furthermore, the type of sexual behaviour is considered important, as research has found that high levels of sex within a close relationship are associated with better psychological functioning than high levels of solitary sexual behaviour (e.g., masturbating to pornography; Långström & Hanson, 2006).

Although a recent study found promising psychometric properties for measures of hypersexuality, the lack of consensus and empirical support for the operational definition of hypersexuality, meant that it was not included in DSM-5 and requires further study (Kor, Fogel, Reid, & Potenza, 2013).

Sexual Addiction

Sexual addiction remains the dominant term used in the literature and was originally defined by Carnes (1983, p. 4) as a “pathological relationship with a mood altering experience”, including sexual thoughts, urges, or behaviours (Reid, Carpenter, & Lloyd, 2009). However, the general term ‘addiction’ is vague and is itself not a diagnostic one (Samenow, 2010). The DSM-IV-TR (APA, 2000) used the terms ‘abuse’ and ‘dependence’ rather than ‘addiction’ with respect to substance-related disorders. ‘Abuse’ and ‘dependence’ terms have since been replaced in DSM-5 with ‘substance use disorder’ on a continuum of severity from low to high (APA, 2013). Using the previous DSM-IV-TR criteria for substance dependence, which is often applied to ‘sex addiction’ in the literature, would require at least three of the following criteria over at least 12 months:

- tolerance (needing more or more varied sex for desired effects)
- withdrawal (craving sex)
- saliency (a narrowed focus for sex)
- inability to stop despite repeated attempts
- increased time spent preparing or recovering from sex
- important activities are neglected due to sex
- continued sexual behaviour despite harm caused by it.

However, there is disagreement about whether behavioural experiences such as sex (or gambling, eating, and spending) can cause addiction as they do not involve ingesting chemically-altering substances that lead to physiological tolerance and withdrawal symptoms (Goodman, 2001). Furthermore, the term 'addiction' is considered vague, value-laden, and stigmatising and has been critiqued for overlooking other important information about the context and consequences of behaviours, such as level of harm, subjective distress, and functional impairment (Samenow, 2010).

In terms of OCSB, DSM-IV-TR criteria for dependence (when replacing 'substance use' with 'sexual thoughts, feelings and behaviours') are often not met in research samples who instead display a range of different motivations, experiences, and behaviours. For example, men presenting with OCSB report a variety of experiences including distress, depression, anxiety, difficulty managing thoughts, social alienation, and deficits in affect regulation, suggesting that individuals with OCSB are a diverse group (Reid & Carpenter, 2009; Reid, Carpenter, Spackman, & Willes, 2008). The appropriateness of using any kind of homogeneous conceptualisation has been queried, as a variety of treatment needs were found to exist such as treating depressive and anxious rumination, loneliness, and social alienation (Reid & Carpenter, 2009). Further, only 25% of another small sample of 30 men presenting with OCSB were suggested to have met criteria for sexual 'addiction', based on DSM-IV-TR, due to the presence of a "deteriorating dependence on commercial or illegal sex" (Levine, 2010, p. 266). An additional 25% were considered to have a paraphilia but 50% displayed a wider spectrum of sexual behaviour (e.g., masturbating to pornography, visiting strip clubs), which caused distress for their partner, but did not include 'addictive' features (Levine, 2010).

Critiques of these various terms and definitions demonstrate that compulsivity, impulsivity, hypersexuality, and addiction are useful but not sufficient to capture all experiences of difficulties with regulating sexual thoughts, feelings, and behaviours. Although the nosological debate

continues, progress has been made in understanding this phenomenon. Several important differences between the various terms and definitions have been noted, such as the range of hypothesised underlying mechanisms between compulsivity, impulsivity, hypersexuality, and addiction. There are also significant overlapping features such as repetitive behaviours, disinhibition, and difficulties controlling the behaviour, with associated distress or functional impairment. Thus, these constructs may not necessarily be mutually exclusive although the underlying causal or maintaining factors may vary. Additionally, given the diverse experiences of those with these sexual behaviours and the criticisms of using a homogenous conceptualisation, the notion of utilising an all-encompassing term such as 'out-of-control sexual behaviour' (OCSB) has gained favour amongst researchers for its ability to be inclusive of problematic sexual behaviours (e.g., obsessive, compulsive, hypersexual or addictive), until such time that robust terminology and definitions are agreed upon (Bancroft & Vukadinovic, 2004). An umbrella term such as OCSB is useful until such time as nosological conclusions about this complex construct are reached, and thus was considered to be the most appropriate for the current study.

Out of Control Sexual Behaviour: An Interim Definition

OCSB is defined as:

Difficulty in regulating (e.g., diminishing or inhibiting) sexual thoughts, feelings or behaviour to the extent that negative consequences are experienced by the self or others. The behaviour causes significant levels of personal or interpersonal distress and may include activities that are incongruent with personal values, beliefs or desired goals. The behaviour may function as a maladaptive coping mechanism (e.g., used to avoid emotional pain or used as a tension-reduction activity) and may coincide with other psychopathology or neurological impairments.

(Reid & Woolley, 2006, p. 220)

The key features of OCSB are that individuals experience difficulties controlling or regulating their sexual behaviour, which causes distress and/or negative consequences. The use of these features to define OCSB is supported by research that consistently finds distress or negative consequences relating to difficulties with sexual behaviour (Black, Kehrborg, Flumerfelt, & Schlosser, 1997; Långström & Hanson, 2006; Manning, 2006b; Muench et al., 2007; Reid et al., 2008; Reid & Carpenter, 2009; Reid et al., 2009). Most often, OCSB involves masturbation, porn viewing (internet or DVD) or frequent partner sex (monogamous or with multiple partners), but the type or amount of behaviour is insufficient to determine the presence of OCSB, as has already been noted. Consequently, the impairment and associated distress for self or others as a result of the behaviour is a vital component, rather than a focus on the type or frequency of sexual activity that the individual is engaging in, unless the behaviour is dangerous or illegal, in which case the criteria for distress and impairment to self or others is likely to be met anyway (Goodman, 2001). For example, an individual who enjoys watching pornography and is experiencing no impairment or distress as a result but whose partner is distressed may simply indicate different values around pornography (Levine, 2010). Additionally, an individual may have ego-syntonic sexual desire (e.g., a non-heterosexual orientation) because of religious beliefs or family opinions; however OCSB is not necessarily an appropriate classification in such a case, as cultural and religious factors must be considered. As these examples show, the presence of distress or impairment also does not automatically indicate OCSB, as the context is vital to consider. It is also important to consider the limitations of the term OCSB, as the descriptor 'out-of-control' could be seen as unhelpful to developing self-efficacy around taking control of the behaviour, giving permission rather than encouraging self-responsibility and accountability, as well as the critiques applying to the 'sexual impulsivity' framework, such as OCSB at times involving planned acts (Levine, 2010; Samenow, 2010).

The following hypothetical case examples illustrate the heterogeneity of OCSB because all demonstrate sexual behaviour that is 'out-of-control', causing distress for self or other, or causing and impairment to at least one domain of functioning:

- John is a 39 year old self-employed graphic design artist who spends 5-6 hours a day viewing pornography online while at work and when home in the evenings. As a result of his time spent online at work, his finances have been affected and he no longer is able to be aroused during sex with his partner. In addition, the pornography content has become increasingly more extreme and his partner has given him an ultimatum to seek help after finding videos of bestiality (sex with animals) in their computer's recycle bin. John feels distressed and depressed that he continues to engage in the online viewing but has been unable to stop viewing despite trying to do so many times. He has difficulties self-regulating or being able to share his distress with his partner. Online pornography viewing is an attempt to regulate his negative feelings in the absence of sufficient individual or relationship resources to do so. Over time the use has increased and despite wanting to stop he has been unable to. He feels terribly distressed by his inability to stop and it has caused relationship strain, further distress and increased use in an attempt to self-regulate.
- Tom is a 50-year-old married politician who visits massage parlours and prostitutes whenever he is out of town due to feelings of loneliness. The guilt from his behaviour led to increases in his alcohol consumption and caused great anxiety for him that he may be caught. This fear was publically realised when he was caught after using his government credit card to purchase sex. This led to great shame for Tom, and his wife and

children. His friends and colleagues shunned him, and his future career is now uncertain. In Tom's case, he may have originally experienced anxiety from being alone while away on a trip and as he was unable to access sex due to being away from his wife, he contacted a sex worker as self-soothing. He likely experienced considerable guilt and shame which has led to him consuming alcohol and ruptured his relationship when he was discovered.

- Daniel is a 28-year-old single man who spends his evenings cruising local parks, public restrooms, and erotica stores for sexual contacts, either male or female. This activity consumes several hours a night and has prevented Daniel from completing his University qualification. He has unprotected sex with multiple anonymous partners each week and has been unable to change this unsafe practice despite having contracted several sexually transmitted infections and difficulties being able to stay in a relationship for more than a few weeks. Daniel is taking some serious risks and has an inability to alter his behaviour despite sexual health problems and distress for both himself and others. His relationships may be so brief as he is unable to become close to others in a non-sexual manner, lacking the intimacy skills to connect with someone else.

As these cases demonstrate, there are various ways that OCSB can present that have similar as well as different contributing factors and consequences. Each case has in common difficulties with intimacy in relationships. In John and Tom's case, they have current relationships in which they are experiencing intimacy problems while Daniel has trouble forming a long-term relationship at all. John and Tom, and likely Dan, have emotion regulation difficulties, and all are experiencing reduced control, impairment and distress. Each sought help for sexual behaviour

that they considered to be problematic, with different types and frequency of this behaviour, as well as unique motivations for engaging in the behaviour, and they displayed a full spectrum of adverse consequences on their everyday life.

OCSB-Related Impairment and Distress

The hypothetical case examples highlight that the impairments or consequences that might occur for an individual experiencing OCSB are wide-ranging depending on the behaviour/s the individual is engaging in (Muench et al., 2007). With the advent of the internet, smart phones, Apps, and social networking, and the anonymity, affordability, and accessibility of online sexual activity, there are more opportunities to find sex on demand within the person's own home (Cooper, 1998; Hardy, Ruchty, Hull, & Hyde, 2010; Schneider, 2004; Weiss & Samenow, 2010). Consequences of OCSB identified by Muench et al. (2007) include impaired job performance or lost productivity resulting from looking at pornography or fantasising about sex while at work. There may be economic losses if the OCSB involves spending money on sex workers and pornography. Where there are infidelities or the behaviour is distressing to the partner, there can be relationship break-down and the loss of close and satisfying sex with the partner (Schneider, Weiss, & Samenow, 2012). In some cases there can be legal consequences, such as if caught having sex in public or looking at pornography involving minors. Physical consequences can occur such as genital lesions from excessive masturbation as well as risk of sexually transmitted infections from unprotected sex with multiple partners, the spread of Human Immunodeficiency Virus, and unintended pregnancies (Muench et al., 2007).

Further consequences are specific to the partner(s) and family of the individual with OCSB. In a review of the literature on the impact of internet pornography on marriage and the family, partners of those with OCSB reported feeling hurt, angry, rejected, and inadequate, which reduced relational trust and intimacy (Manning, 2006b). The impact of finding out that a partner has OCSB and perceiving such behaviour as infidelity has, for some, lead to symptoms of trauma

including sleep disturbance, loss of appetite, nightmares, fluctuating mood states, rage, horror, betrayal, anger, loss of concentration, devastation, numbness, shock, and suicidality (Hentsch-Cowles & Brock, 2013).

As well as effects on partners, the impact of OCSB on children included their inadvertent traumatic exposure to pornography, overhearing internet sex, or being exposed to a parent masturbating (Manning, 2006b). Children may experience effects on their sexual and social development if they receive distressing messages about sex and relationships, and this can lead to unhelpful expectations about future sexual relationships. Children may lose opportunities for time with the parent with OCSB, as well as the other parent, as each become distant and preoccupied with the problem in different ways. Children are also exposed to an increased risk of parental conflict, separation, or divorce (Manning, 2006b).

These individual, relational, and family consequences have flow-on effects for the wider community, including funding sexual health and termination services, increased rates of separation or divorce, single-parent and unemployment welfare, psychological services such as family court counselling, and the effects of children's exposure to their parent's sexual and relationship problems (Manning, 2006b). In many respects, OCSB becomes a community-wide problem requiring accurate assessment, intervention, and prevention efforts (Reid, 2013).

Epidemiology

In order to assess, treat, or prevent OCSB, there must first be an understanding of who is affected but the different terms and methods used across the literature has limited the conclusions that can be drawn from the available information. Additionally, the focus has been on defining OCSB rather than establishing how and why sex becomes problematic (Bancroft, 2008). The literature and media both refer to OCSB as a growing problem with the advent of the internet and online pornography; however there is no research evidence to support this claim from an

epidemiological perspective (Hentsch-Cowles & Brock, 2013). From the research to date, it appears that the course of OCSB peaks between ages 20 and 30, with a typical age of onset during adolescence or earlier (Goodman, 1997; Reid, 2013). Several researchers propose that the prevalence of OCSB using a 'sexual addiction' definition is that 3-6% of the population is affected (Black, 2000; Carnes, 1991; Coleman, 1992; Kuzma & Black, 2008). However no published epidemiological studies have been cited that supports this figure (Reid, 2013). OCSB has been suggested to particularly affect homosexual or bisexual individuals; however there is no data to support this suggestion although heterosexual or bisexual men are commonly studied in the literature on OCSB (Reid, 2013).

A more recent study examined 'sex addiction' in a community sample of men ($n = 117$, mean age 33.9; $SD = 9.87$) using the Sexual Addiction Screening Test (SAST, Carnes, 1989) and found higher rates of 17.9%, concluding that the sample's lower socioeconomic status than that used in previous research may have accounted for the greater rate found (Marshall, Marshall, Moulden, & Serran, 2008). Another recent study exploring 'problematic sexual internet use' in a Swedish sample ($N = 1913$) found rates of 5% in women ($n = 1250$) and 13% in men ($n = 652$), although this was obtained using a self-selected online sample (Ross, Månsson, & Daneback, 2012). Online respondents are usually younger, of a higher socio-economic and education status, and are usually more often male, although significantly more females responded in this example (Binek, Mah, & Kiesler, 1999). No research to date has used appropriate methods for obtaining accurate prevalence of OCSB, possibly because of the ongoing issues in operationally defining OCSB.

Most OCSB research has involved men, with the proportion of women in samples prior to 2010 ranging from 8 – 40% (Kaplan & Krueger, 2010). OCSB has been suggested to affect more men than women and the majority of research findings relate to Caucasian men with OCSB (Kaplan & Kruegar, 2010; Reid, 2013; Ross et al., 2012). There is no New Zealand data on

OCSB prevalence, but there is one study on perceived 'out-of-control' sexual experiences (OCSE) over the past 12 months, defined as 'sexual fantasies, urges or behavior that you felt were out of control' in the Dunedin Multidisciplinary Health and Development study (Skegg, Nada-Raja, Dickson, & Paul, 2010, p.970). Of the 474 men and 466 women in the study, 13% of men and 7% of women endorsed perceived OCSE in the past year according to a one-item questionnaire (Skegg et al., 2010). Of these, only 3.8% of men and 1.7% of women reported their OCSE interfered with their lives, one of the criteria for OCSB (Reid & Woolley, 2006). The authors concluded that OCSB might be less common than first thought (Skegg et al., 2010). However, this study does not provide information on OCSB according to the definition used in the literature (Reid & Woolley, 2006).

Internationally, little research has explored gender or cultural differences (Manley & Koehler, 2001; Turner, 2008). However some possible gender differences are that men with OCSB engage in more solitary sexual behaviour than women with OCSB, such as masturbating to pornography (Bancroft, 2008; Manley & Koehler, 2001). Women with self-identified OCSB in one qualitative study reported a high frequency of fantasy and seductive role play, pain exchange, and trading sex which was considered to serve the purpose of meeting needs for power, control, and attention (Ross, 1996). Another study found women using the internet for sexual purposes sought interactive activity or cybersex compared to men who used it more for solitary behaviours such as looking at sexually explicit material (Bancroft, 2008).

Women with OCSB may also have fewer lifetime sexual partners than men. In one study involving 36 participants, men reported an average of 59 lifetime sexual partners while women reported an average of eight (Black et al., 1997). Women may also have some OCSB-related consequences that men do not experience, including the need to terminate unwanted pregnancies or embark on single-parenting. One study found that 25-50% of women with 'sexual addiction' reported having had at least one termination (Ferree, 2001). Although such

experiences may impact on men also, such as being required to pay child-support or be involved in co-parenting.

Co-Morbidity

OCSB is a heterogeneous experience that is related to other psychological problems such as depression, anxiety, and substance use (Black et al., 1997; Briken, Habermann, Berner, & Hill, 2007; Guigliano, 2006; Perera, Reece, Monohan, Billingham, & Finn, 2009a; Weiss, 2004). Investigations of psychological disorders in volunteer men reporting compulsive sexual behaviour found lifetime rates of 28 - 36% for depression, in comparison to the population prevalence of 12% depression in American men and 11.4% for major depression in New Zealand men using DSM-IV (Black et al., 1997; Oakley Browne, Wells, & Scott, 2006; Weiss, 2004). Additionally, 42% were found to have a comorbid phobia while 33% had current co-existing problem/s and 61% a lifetime co-existing problem (Black et al., 1997). In Brazilian men seeking treatment for compulsive sexual behaviour, over half had a current anxiety disorder and one third a current mood disorder, with 22% reporting current suicidal ideation (Scanavion et al., 2013). Specific diagnoses included generalised anxiety or obsessive compulsive disorder, bipolar disorder, panic disorder, depression, substance use disorders, and adult attention-deficit/hyperactivity disorder (Reid, 2013; Scanavion et al., 2013).

German sex therapists who were sent a 12-item survey asking about comorbidity of clients they had seen with OCSB most commonly reported anxiety, eating disorders (in women), and substance use, although only 28.9% of therapists responded (Briken et al., 2007). Those with OCSB have also been found to have more psychological difficulties including self-doubts, self-criticalness, rumination, impulsivity, cognitive rigidity, poor judgement, preoccupation, loneliness, guilt, self-depreciation, and worthlessness than a control group (Reid & Carpenter, 2009; Reid, Karim, McCrory, & Carpenter, 2010). They also experienced more deficits in regulating their emotions and identifying their feelings (Reid et al., 2008).

Substance use is also often found to be common in individuals with OCSB who experience anxiety, depression, and psychological distress as an attempt to self-soothe or regulate distress, and ongoing use of substances may also maintain or escalate distress during states of withdrawal (Koob, 2006). Research into substance use amongst those with OCSB found 65% concomitantly used sex and substances (Guigliano, 2006) and 64% met DSM-IV criteria for a substance use disorder (APA, 2000; Black et al., 1997). One study specifically examined stimulants, alcohol, and sexual behaviour in a sample of 539 young men and women (Perera et al., 2009a). Stimulant use was associated with sexually compulsive behaviour while alcohol use was associated with sexual sensation-seeking, although the direction of these relationships was not able to be determined (Perera et al., 2009a). An accurate level of co-morbidity is difficult to determine, although common difficulties are anxiety, depression, and substance use, as well as unhelpful thinking styles (rumination) and difficulties in identifying and regulating feelings, loneliness, or distress.

Etiological Factors

From a scientist-practitioner model, which prizes clinical interventions that are informed by empirical research and support, central to informing an appropriate treatment for a problem is an understanding of its etiology (Kazdin, 2008; Raimy, 1950). Yet in the case of OCSB, there is no empirically supported etiological model, partly due to the difficulties with defining and measuring OCSB as a heterogeneous phenomenon. However over the past 30 years, researchers and clinicians have proposed multiple interacting factors as causes of OCSB, along the lines of the etiology of substance use disorders and other excessive behaviour disorders (e.g., substances, eating, gambling, sex, shopping). One suggestion is that these behaviours may all involve the same underlying etiological factors, with different behavioural expressions (Shaffer et al., 2004). However, just how this diathesis or vulnerability and the development of particular sequelae (e.g.,

OCSB versus alcohol disorder) occur is not yet known. Etiological ideas to date are largely based on correlational rather than causal methods.

Suggested contributing causes towards OCSB include neurobiological factors such as sex hormones, family experiences (such as abuse, neglect, and trauma), prior history of sexual abuse, the availability of sexual opportunities, difficulties with impulsive or compulsive behaviour, affect-regulation difficulties, executive function problems, insecure attachment, and problems with intimacy (Bancroft & Vukadinovic, 2004; Kaplan & Kruegar, 2010; Salisbury, 2008; Schwartz, 2008; Seegers, 2003; Shaffer et al., 2004).

From a neurobiological viewpoint, low levels of serotonin, dopamine, and norepinephrine have been found in people with OCSB, all of which are involved in the brain's reward centre (Mick & Hollander, 2006; Shaffer et al., 2004). The 'dopamine deficiency' hypothesis is that the brain is unable to produce sufficient levels of these 'feel good' chemicals and therefore seeks out reward experiences in an attempt to self-medicate, and whether these are to do with food, shopping, gambling, or some other stimulus depends on opportunistic experiences (Shaffer et al., 2004). For example, those with problem gambling often receive a financial win early on which, combined with operant conditioning processes, reinforces the perception of chance outcomes (Shaffer et al., 2004). Tolerance to reward is thought to develop, which is when an increasingly novel or exciting behaviour is required in order to achieve the same level of pleasure or desired effect (Shaffer et al., 2004). This has been applied to problem gambling where the individual requires greater risks such as greater quantity of bets and amounts spent (Shaffer et al., 2004). In sexual behaviour, increased sexual sensation-seeking or increased frequency of behaviour may be required in order to feel satiated, such as seeking out more extreme pornography or increasing time spent engaging in pornography viewing.

Support for the notion that serotonin deficiencies may contribute to OCSB includes the few studies that have found selective serotonin reuptake inhibitors (SSRIs) can reduce the incidence or frequency of OCSB (Kafka, 1994; Stein et al., 1992). However the mechanism of action is unclear. One possibility is to do with OCSB being related to underlying mood or anxiety disorders and that, as these are improved with the SSRI, less OCSB results (Kafka, 1994). Alternatively though, a side-effect of taking SSRIs can involve inhibition of the sexual response which might lead to reduced OCSB rather than the effects of the SSRI on alleviating low mood (Kennedy, Eisfeld, Dickens, Bacchiochi, & Bagby, 2000). One study found the reported impairment in sexual drive/desire or ability to orgasm using four different SSRIs ranged from 38% to 50% for men, and from 26% to 32% for women (Kafka, 1994). This suggests that, as well as impaired sexual response being a third variable to the effects of serotonin on OCSB, there may be differences in how much this is a mitigating factor between men and women, with men being more commonly affected (Bancroft, 2008).

Hormones also play a role in sexual behaviour and are implicated in sexual drive or desire, although most of the research to date has been conducted with rodents rather than humans (Fletcher, Simpson, Campbell, & Overall, 2013). The first of these hormones is oxytocin, a naturally-produced bonding chemical that aids feelings of closeness to another during sexual activity as well as during other types of connection such as maternal bonding (Baskerville & Douglas, 2010; Carter, 2003; Cassidy, 2001; Fletcher et al., 2013). Oxytocin has been called the 'cuddle hormone' which promotes bonding between mother and infant, infant and mother, and within adult sexual relationships (Cassidy, 2001). Oxytocin is most discussed in relation to women, as it is released during labour and breastfeeding as well as during sex and after orgasm (Costello, 2013; Fletcher et al., 2013). Oxytocin is also present in men during sex and orgasm, and is suggested to be involved in OCSB in that it reinforces sexual behaviour for those who have

difficulties experiencing intimacy in non-sexual ways, and also has anxiolytic effects (Baskerville & Douglas, 2010).

A similar hormone, vasopressin, is called the 'commitment hormone' and, due to its association with testosterone, is often referred to in relation to men (Fletcher et al., 2013). Whether or not vasopressin is released depends on the presence of testosterone (Fletcher et al., 2013). Testosterone is linked to sex drive in both men and women, with higher testosterone found in single men than men in relationships or men who are fathers (Fletcher et al., 2013). Women are found to have high levels of testosterone pre-ovulation, and, from an evolutionary perspective, it is thought this is designed to increase the likelihood of sexual intercourse and procreation (Fletcher et al., 2013).

Thus both chemical and hormonal interactions play a complex role in both bonding and sexual behaviour; however a comprehensive understanding of these relationships in relation to OCSB in humans is yet to be robustly researched. In particular, there is no data on how these hormones might impact on an individual's vulnerability to OCSB where there have been experiences of impaired early bonding.

Abuse, Neglect, & Trauma

Abuse, neglect, and trauma in childhood are often experienced by individuals with OCSB. Abuse and poor childhood family environments have been reported in many of those with sexual compulsivity (Creeden, 2004; Hall, 2011; Långström & Hanson, 2006; Parsons et al., 2008; Perera, Reece, Monahan, Billingham, Finn, 2009b). Similarly, individuals engaging in high rates of impersonal sex with multiple partners reported adverse experiences of separation from a parent during childhood (Långström & Hanson, 2006). A qualitative study exploring clients' understandings of why they developed OCSB found a desire for human connection and re-enactment of childhood trauma commonly reported (Guigliano, 2006). In such cases, trauma

resolution may be a primary treatment (Guigliano, 2006). Experiences of sexual degradation during childhood, whether or not in the context of abuse, has also been suggested as a possible cause for developing later sexual problems (Bergner, 2002).

One specific type of trauma that is associated with OCSB is sexual abuse in childhood (Carnes, 1991; Guigliano, 2006; Schwartz, 2008). However research that examines this is limited and problematic. Carnes study found 82% of his sample ($N = 900$) who were in treatment for 'sex addiction' reported childhood sexual abuse, however the methodology relied on self-report and the definition of sexual abuse was not provided, making it difficult to establish the validity of this finding (Carnes, 1991; Gold & Heffner, 1998). A history of childhood sexual abuse has been found to correlate with risky sexual behaviour such as earlier age of sexual intercourse, unprotected sex, a higher number of lifetime sexual partners, being more likely to engage in sex work, and to have caught sexually transmitted infections (Senn, Carey, Venable, Coury-Doniger, & Urban, 2006). However 'risky sex' is not necessarily the same as OCSB, although it may cause distress and impairment resulting from sex.

Sexual Opportunity

Social triggers also contribute to the onset and maintenance of OCSB, including the availability of sex as well as sexually provocative triggers. Potential triggers of sexual compulsivity have been examined qualitatively with 180 gay and bisexual men who reported a mixture of triggers that were differentiated as either predictable (e.g., contextual; people, places, substance use, porn) or unpredictable (e.g., events; relationship issues and catastrophes; Parsons et al., 2008). This study found that environmental cues and triggers may lead to unplanned sexual behaviour for some individuals, but does not explain how such triggers lead to OCSB for some individuals but not others who are also exposed to them. So far, the study of these factors is limited to gay and bisexual men. The research on affect regulation offers some insight into the

interaction between external triggering events (e.g., relationship ruptures) and affective distress, difficulties self-soothing, and OCSB.

Affect-Regulation Difficulties

Affect-regulation difficulties are one consistently supported correlational factor in OCSB (Bancroft & Vukadinovic, 2004; Grov, Golub, Mustanski, & Parsons, 2010; Reid et al., 2009; Reid et al., 2008; Reid et al., 2010). There are three suggested mechanisms under which affect regulation may interact with sexual behaviour which include self-soothing, distraction, and 'excitation transfer' (Bancroft, 2008). Sex as self-soothing involves pursuing sexual contact to meet emotional needs, such as having contact with another person, or enhancing self-esteem through feeling sexually desired (Bancroft, 2008). Distraction is another mechanism sexual stimulation may be used for, so as to prevent thinking about distress or upsetting events (Bancroft, 2008). Thirdly, 'excitation transfer' is the process of transferring anxiety or affect into sexual arousal allowing a perceived release to be achieved via orgasm (Bancroft, 2008).

Bancroft and Vukadinovic (2004) investigated the link between negative affect states, affect regulation difficulties, and sexual arousal in 31 men and women self-defined as 'sex addicts'. They found that there was a tendency for increased arousal to occur in states of depression or anxiety, when compared to a large age-matched control group ($n = 339$). It was suggested that OCSB might be a method of self-soothing for negative affect states in the absence of healthy affect regulation skills (Bancroft & Vukadinovic, 2004). Likewise, affect played a key role in sexual behaviour and sexual risk-taking in a sample of men who described themselves as heterosexual but sought covert sex with men, with anxious arousal being associated with increased sexual activity (Grov et al., 2010). Further to difficulties regulating feelings, outpatients with hypersexual behaviour reported more alexithymia, the inability to recognise and identify the presence of feelings, than a control group (Reid et al., 2008). Reid et al. also found that lower ability to identify feelings was associated with greater severity of hypersexuality. These findings support Bancroft's

(2008) suggested mechanisms of self-soothing, distraction, and 'excitation transfer' being implicated as factors in developing and maintaining OCSB.

In summary, ideas about the etiology of OCSB are in the early stages of development. Several studies have begun to explore the role of several factors that may contribute to OCSB, although all such studies are correlational and largely involve men, thus causal conclusions cannot be drawn nor is it clear whether they are also reflective of women with OCSB. Researchers are now starting to consider underlying factors that might more fully explain the development of this kind of sexual difficulty, such as intimacy and relating to others.

Developing the Capacity for Intimacy

Increasingly, OCSB is considered to be influenced by difficulties with intimacy and attachment, which are intertwined and similar constructs that develop alongside each other (Adams & Robinson, 2001; Griffin-Shelley, 2009; Zahedian, Mohammadi, & Samani, 2011). The Latin word 'intimus' is translated as 'innermost' and is defined as:

"Intimacy, therefore, is making one's innermost known, sharing one's core, one's truth, one's heart, with another, and accepting, tolerating the core, the truth, of another. It is being able to tell both the good and the bad parts of oneself, to tell of anger, ambivalence, and love; and to accept both the good and the bad parts of another, to accept anger, ambivalence, and love. It is to share the self: one's excitements, longings, fears and neediness, and to hear of these in another."

(Cassidy, 2001, p.122)

Intimacy is intertwined with attachment because early caregiving experiences lead to expectations about relating to others, and are the basis for the development of empathic relating, self-worth, and efficacy (Collins & Sroufe, 1999). The capacity for intimacy comprises the ability to seek comfort at times of distress, the ability to provide comfort to others in their times of distress,

the ability to feel comfortable with an autonomous self and the autonomy of close others, and the ability to negotiate needs for closeness with close others (Cassidy, 2001). The capacity for intimacy in relationships is learned via an individual's attachment experiences and subsequent attachment style, which play a vital role in the developmental pathway towards sexual relating (Collins & Sroufe, 1999; Marshall & Marshall, 2010; Schwartz & Southern, 2000). This relates to the concept of 'love maps' which are the range of partner characteristics that arouse an individual and can be considered to be a template that they seek out in sexual relating (Money, 1986). It has been argued that love maps can be vandalised, in other words disrupted so that arousal patterns become problematic, via insufficient attachment experiences, leading to experiences such as re-enacting trauma (Money, 1986; Schwartz & Southern, 2000). For example paraphilias such as paedophilia are suggested to result from a vandalised love map (Schwartz & Southern, 2000).

Evidence that the theory of intimacy and attachment is foundational for the development of sexual and relational behaviour is emerging from multidisciplinary sources, including developmental researchers, neuroscientists, researchers in the areas of psychopathology and sex offending, and several researchers in the OCSB field (Collins & Sroufe, 1999; Cozolino, 2006; Creeden, 2004; Hazan & Shaver, 1987, 1994; Hudson-Allez, 2009; Katehakis, 2009; Marshall & Marshall, 2010; Sroufe, 2005). This section first outlines attachment theory before exploring its relationship with intimacy and sex. While most research to date is correlational, there are several longitudinal studies that will also be discussed.

Bowlby's (1907 – 1990) attachment theory posits that the quality of the caregiving relationship experienced during an individual's first few years of life will establish the basis for affect-regulation, self-regulation, and intrapersonal as well as interpersonal functioning (Bowlby, 1969/1982, 1973, 1979, 1980, 1988). Attachment experiences involve the attachment figures' (primary caregivers') emotional interactions and responses to their infants when distressed, or

during and following episodes of separation (Bowlby, 1973). The quality and consistency of these responses provide a template for the infant's future relationships and this theory has become dominant in the study of adult romantic relationships in recent years (Fraley & Shaver, 2000; Hazan & Shaver, 1987, 1994). Attachment experiences contribute to helpful affect-regulation strategies that promote intimacy in close adult relationships, with attuned and consistent caregiving responses being the ideal in promoting such strategies (Land, Rochlan, & Vaughn, 2011).

Ainsworth (1913 - 1999) observed caregivers interacting with their infants in seminal field research (Ainsworth, Blehar, Waters, & Wall, 1978; Ainsworth & Wittig, 1969). American infants aged 9 to 18 months were observed on separation from their mother, when left with a stranger, and when reunited with their mother. Three interaction styles were observed including: 1) secure attachment, associated with mothers who were emotionally available and perceptive, and infants who cried on separation but were easily soothed on reunion with their mother; 2) ambivalent attachment, associated with mothers who were inconsistently available, and infants who cried heavily on separation but were not easily soothed by reunion with their mother; and 3) avoidant attachment, which was associated with mothers who were unavailable, distant, or rejecting, and infants who neither cried at separation nor welcomed contact on reunion with their mother. Which of these attachment style that develops is a result of these interaction patterns over childhood, combined with genetic or biological predisposition, such as individual temperament which can itself affect the type of caregiving response a parent offers (e.g., colic in infants can lead to non-secure attachment behaviour from the parent; Akman et al., 2006; Schore, 2003).

Secure Attachment, Relating, and Sex

If secure interactions are consistently experienced, the growing child will be more likely to learn confidence in obtaining care from others, develop their capacity to effectively regulate emotions, and receive sufficient emotional skills to relate to other people, cope with life's

challenges, and develop self-confidence (Costello, 2013; Davila & Levy, 2006). These features map onto Cassidy's (2001) description of intimacy, which highlights the relevance of attachment to intimacy development. A secure attachment involves feeling loved, being effective at sourcing comfort, and being autonomous and competent. Those with a secure attachment generally perceive others as available, cooperative, and dependable and perceive the world as safe (Bowlby, 1988). Securely attached individuals utilise emotion self-regulation skills such as self-soothing (e.g., doing things that reduce distress for them) or seeking comfort from close relationships and accepting comfort when it is offered. Such a foundation allows a child to transition into adolescence and adulthood with sufficient skills to relate with others and develop intimacy, vital for healthy relationships as well as emotional wellbeing and non-problematic sexual behaviour (Collins & Sroufe, 1999; Creeden, 2004).

Secure attachment leads to sexual behaviour that is less likely to result in distress or impairment for themselves or others, and which fosters mutuality, caring, and commitment (Mikulincer & Goodman, 2006). It has been associated with fewer sexual partners, a positive attitude towards committed monogamous relationships, and generally more positive affect towards sexual experiences (Gentzler & Kerns, 2004). Those with a secure attachment also endorsed getting pleasure from expressing affection (Mikulincer & Goodman, 2006). In summary, secure attachment is associated with sexual behaviours that are less likely to result in distress or impairment for the self or others.

Insecure Attachment, Relating, and Sex

When secure interactions are not experienced for various reasons, such as a caregiver's limited ability to be emotionally attentive and supportive, adaptive infant behaviour will result (Schwartz & Southern, 2000). This can include intensifying attachment-seeking behaviours such as exaggerating distress to obtain attention from an inconsistent caregiver (hyperactivation), or minimising attachment-seeking behaviours when a caregiver is physically or emotionally

unavailable, unsympathetic, or unresponsive by becoming withdrawn and self-reliant (deactivation) (Obegi & Berant, 2009). When either behaviour is used regularly, it is likely that an insecure attachment will form, with hyperactivation being associated with ambivalent attachment (preoccupied attachment) and deactivation being associated with avoidant attachment (dismissing attachment; Obegi & Berant, 2009).

A preoccupied attachment style over the lifespan involves high-need behaviour, such as reassurance seeking, hypersensitivity, anxiety, attention seeking behaviour, and heightened arousal (Hudson-Allez, 2009). A preoccupied view of the self involves feeling worthless, ineffective at sourcing comfort, and dependent, while others are perceived as neglecting, insensitive, unpredictable, and unreliable; this affects intimacy as the individual struggles to feel safe to share their true self (Cassidy, 2001; Hudson-Allez, 2009). Preoccupied attachment is associated with overwhelming emotional experiences and difficulties self-regulating when distressed, thus requiring external support from others to aid regulation (Obegi & Berant, 2009).

Preoccupied attachment is associated with some sexual outcomes that have the potential to cause distress or impairment to self or others, such as more frequent infidelity, earlier age of first intercourse, more lifetime partners, and difficulties maintaining a relationship (Bogaert & Sadava, 2002; Gentzler & Kerns, 2004). Those with a preoccupied attachment were more likely to have difficulties resisting pressure to have sex, have less condom use, and endorse the caregiving aspects of sex, such as touching, cuddling, and kissing (Mikulincer & Goodman, 2006). Those with a preoccupied attachment also endorsed using sex to avoid abandonment, achieve emotional intimacy or reassurance, elicit a caregiving response, or defuse a partner's anger (Mikulincer & Goodman, 2006; Szielasko, Symons, & Price, 2003).

In contrast, a dismissing attachment style involves cognitive strategies to minimise intimacy needs in spite of a high level of internal physiological stress (Hudson-Allez, 2009). A dismissing

view of the self involves feeling unloved but self-reliant and perceiving others as rejecting, intrusive, and unable to meet their needs (Hudson-Allez, 2009). This fits with Cassidy's (2001) description of intimacy requiring the ability to hear the fears and neediness of another. Dismissing attachment is associated with the emotion regulation strategies of disconnection or avoidance, and phenomena such as alexithymia (difficulties naming or identifying feelings) may result (Land et al., 2011). Sex is used to simultaneously "get close and stay far away" (Schwartz & Masters, 1994, p. 271).

Research examining sexual beliefs and behaviours has found that dismissing attachment is associated with less restrictive sexual beliefs and more casual sex (Bogaert & Sadava, 2002; Gentzler & Kerns, 2004; Mikulincer & Goodman, 2006; Szielasko et al., 2003). Those with dismissing attachments were also less likely to have sex within a committed relationship, and more likely to engage in sexual behaviours that detract from intimacy with another person, such as solitary behaviours (i.e., masturbation; Mikulincer & Goodman, 2006; Szielasko et al., 2003). In addition, dismissing attachment was associated with goals of manipulating or controlling a partner, avoiding a partner's negative affect, reducing stress, or increasing prestige among peers, rather than to promote closeness or give pleasure to a partner (Mikulincer & Goodman, 2006). Such behaviours are more prone to cause distress to others and cause impairments, such as the transmission of sexually transmitted infections resulting from sex with multiple partners.

A fourth insecure attachment style – disorganised attachment (also termed fearful attachment) - was introduced by Main and Soloman (1990), as they observed that some experiences of insecure attachment were not consistent with preoccupied or dismissing attachment. Fearful attachment was suggested to be the most severe of the insecure patterns as it was often associated with unpredictable experiences of abuse, neglect, or trauma, whereby the caregiver was also a source of physical or emotional threat. This incongruence results in confused behaviour as the biological drive to seek comfort from the caregiver is countered by the

biological drive to escape danger caused by the caregiver (Costello, 2013; Obegi & Berant, 2009).

In fearful attachment, a frequent experience of heightened emotional arousal occurs, and fluctuations between preoccupied and dismissing emotional regulation strategies result, with neither successfully alleviating distress (Obegi & Berant, 2009). The individual develops an internal working model of being unloved, and others are viewed as rejecting, threatening, and unpredictable. Those with fearful attachments have learnt that they can only rely on themselves and so limited attachment is formed towards others (Obegi & Berant, 2009). While this can be a necessary survival strategy for a child with a neglecting or abusive caregiver, it becomes maladaptive as the attachment style becomes entrenched and affects the ability to share, trust, and experience intimacy in adulthood. In terms of sexual behaviour, fearful attachment was found to be associated with 'short-term mating' (multiple sexual partners, brief sexual relationships, or casual sex) in a large international study (Schmidt, 2005). Fearful attachment has also been associated with low sexual desire (Schwartz & Southern, 1999; Szielasko et al., 2003).

When it comes to attachment, it is vital to remember that whatever style develops for an individual is adaptive to their survival within the caregiving experience that they receive (Costello, 2013). For example, an infant with a dismissing style who has shut down their emotional response is able to remain near their caregiver (proximity for physical safety) while an infant with a preoccupied style is able to increase responsivity by staying hypervigilant to caregiver availability (Costello, 2013). Those with a fearful attachment who both seek and fear proximity to their caregiver will use proximity monitoring and avoidance as required to maintain their survival (Costello, 2013). However, individual's using these adaptive strategies when they are no longer required can experience difficulties over their life span, such as in forming close and intimate adult relationships.

Intimacy and Sex

The attainment of a secure attachment and intimacy in relationships is a protective factor for healthy psychological wellbeing, while insecure attachment increases the likelihood of reduced connectedness with others and a range of negative consequences can result (Bowlby, 1988; Collins & Sroufe, 1999; Cozolino, 2006; Hudson-Allez, 2009; Karen, 1990; Kelley, Cash, Grant, Miles, & Santos., 2004; Obegi & Berant, 2009; Schore, 2001; Siegel, 2001, 2006; Sroufe, 2005). Examples of these possible consequences include psychological and personality disorders as well as physical ill-health (Bakermans-Kranenburg & van Ijzendoorn, 2009; Ward, Hudson, & Marshall, 1996; Mickelson, Kessler, & Shaver, 1997; Obegi & Berant, 2009).

For example, 90 clients (84 women and 6 men) in treatment for borderline personality disorder were assessed using the Adult Attachment Interview, a structured measure of attachment style in adults, and 5% were securely attached at intake with the remaining 95% insecurely attached (Levy et al., 2006). This is a very low rate of secure attachment when compared with a large non-clinical sample ($N = 8098$) with reported rates of 59% secure, 25% dismissing, and 11% preoccupied attachment (Mickelson et al., 1997). More insecure attachment and fear of intimacy has also been found in those in treatment for substance use disorders than the general population (Thorberg & Lyvers, 2006). Additionally, adult children of alcoholics (ACOA) reported more dismissing (but not more fearful or preoccupied) attachment than non-ACOA, suggesting ACOA often have difficulties with obtaining intimacy as they limit closeness by using avoidance strategies (Kelley et al. 2004).

Several studies have examined attachment in OCSB and have also found secure attachment to be uncommon (Bogaert & Sadava, 2002; Faisandier, 2010; Faisandier, Taylor, & Salisbury, 2012; Gentzler & Kerns, 2004; Leedes, 1999, Zapf et al., 2008). For example, 92-95% of 22 women and 52 men, respectively, in treatment for sexual addiction (defined as a score of 13 or more on the Sexual Addiction Screening Test, SAST; Carnes, 1991) were found to have an

insecure style of attachment (Leedes, 1999; Zapf et al., 2008). Faisandier et al. (2012; see Appendix A) replicated Zapf et al.'s (2008) study and also found greater reported attachment-related anxiety or avoidance in 621 individuals with self-reported OCSB according to the Sexual Addiction Screening Test-Revised (Carnes, Green, & Carnes, 2010). As previously discussed, both Bogaert and Sadava (2002) and Gentzler and Kerns (2004) found that people with different attachment styles reported different types of sexual beliefs as well as behaviours. This demonstrates that as well as differences between securely and insecurely attached individuals, there are differences within the insecure styles of attachment, such as high levels of solitary masturbation or casual sex in dismissing attachment and multiple sexual partners and reduced condom use in anxious attachment.

These studies support the notion that OCSB is associated with intimacy-related anxiety or avoidance, but the correlational designs used have not clarified whether attachment problems are causal, consequential, or an intricate mixture of both in the development and maintenance of OCSB (Faisandier et al., 2012). However, over the past 30 years, one longitudinal study has been exploring the hypothesis that insecure attachment and deficiencies in intimacy skills lead to problems with psychological development, including sexual relationships (Collins & Sroufe, 1999).

This longitudinal study was initiated by Alan Sroufe in his Minnesota Parent-Child Project, which began in 1979, and is an ongoing longitudinal study of 190 individuals from infancy through the life-span (Collins & Sroufe, 1999). From this study, a theory of the capacity for intimacy was suggested that intimacy evolves through a series of phases over childhood and adolescence, each phase building on the preceding ones. Participants of this study are currently aged 35 and findings over their early childhood, middle childhood, adolescence, and early adulthood found that their childhood attachment style remained relatively robust into adulthood (Collins & Sroufe, 1999). Those with secure attachments fared better individually and socially, while those with insecure patterns experienced greater interaction difficulties, such as being aggressive, less

reciprocal, and responding with negative affect, especially those with anxious-avoidant (fearful) attachments (Collins & Sroufe, 1999). While preoccupied and dismissing attachment only moderately increased the risk for psychological difficulties, fearful attachment was a strong predictor of disturbances such as self-injurious behaviour (Sroufe, 2005).

Middle childhood was found to provide an opportunity to practice intimacy competencies (in non-sexual ways) such as gender boundaries, role-taking, communication, and providing nurturance and reassurance (Sroufe, 2005). In adolescence, additional skills in dating, romantic relationships, and the emergence of sexual relationships were practiced. Positive correlations were found between having good gender boundaries in childhood and those with secure adolescent dating relationships. Secure adolescents perceived their dating partner to be available, considerate, and respectful, and their relationship having intimacy (emotional closeness), and valuing sex in the context of intimacy (Collins, Hennighausen, Schmit, & Sroufe, 1997; Collins & Read, 1990; Collins & Sroufe, 1999). In contrast, girls lacking gender boundaries in childhood reported less contraception use while boys lacking gender boundaries reported a greater number of sexual partners by age 15 (Collins et al., 1997).

Another theory that focuses on the role of intimacy in causing adverse sexual behaviour is in the area of sex offending, which, while not the focus of the current study, is often considered within the umbrella of OCSB. Marshall and his colleagues theorised that “childhood attachments and the adult capacity for intimacy are essential links in the chain of development underlying the emergence of inappropriate sexual disposition” (Marshall & Marshall, 2010, p. 109). In this theory, the key etiological component in sexual offending is a poor attachment history, which leads to difficulties in engaging intimate adult relationships and consequently results in loneliness (Marshall, 1989; Seidman, Marshall, Hudson, & Robertson, 1994).

Sexual offending is hypothesised to function as a method to obtain closeness with others in the absence of sufficient abilities to meet this need in an appropriate manner within adult relationships. In particular, intimacy deficits are argued to be highest in those using sexual violence (e.g., rape and child molestation; Seidman et al., 1994). The argument is that the “failure of sexual offenders to develop secure attachment bonds in childhood results in a failure to learn the interpersonal skills and self-confidence necessary to achieve intimacy with other adults” (Ward et al., 1996, p. 18). Such individuals may form “superficial” relationships with others and feel emotionally unfulfilled, turning to forceful sex in an attempt to seek intimacy (Ward et al., 1996, p. 19).

Several studies have been conducted to examine this hypothesis including a study involving 65 sex offenders (including ‘rapists’, ‘incest offenders’, and ‘child molesters’) which measured differences in this group compared to ‘wife batterers’ ($n = 15$) and a community control group ($n = 15$) (Seidman et al., 1994). Sex offenders were found to score lower on measures of intimacy and higher on loneliness than both the control group and wife batterers (Seidman et al., 1994).

Another study conducted within New Zealand’s Kia Marama sex offender treatment programme found that offenders ($n = 85$) scored highly on three insecure attachment styles (dismissing, preoccupied, and fearful) according to the Relationship Scale Questionnaire (Griffith & Bartholomew, 1994). There were differences between subgroups of sex offenders with 70% of rapists and 82% of child molesters being classified as insecurely attached, with no significant differences between the subgroups of insecure attachment - preoccupied, dismissing, and fearful attachment (Ward et al., 1996). Of interest, the control group of ‘violent non-sex offenders’ ($n = 32$) and ‘non-violent, non-sex offenders’ ($n = 30$) also scored highly on insecure attachment styles, suggesting that insecure attachment may be a general vulnerability factor towards other types of offending, rather than specific to sex offending (Ward et al., 1996).

Other researchers have not found the same links between intimacy, attachment, and sex offending as Marshall's work (Marshall & Marshall, 2010). One such study found that male sex offenders ($n = 48$) reported more frequent secure than non-secure attachment, however attachment style was measured using a four-item questionnaire about retrospective attachment that has not been psychometrically assessed, which affects comparisons across Marshall's studies which used the lengthier Relationship Scale Questionnaire amongst other validated self-report measures (Smallbone & McCabe, 2003).

The role of secure attachment in the development of intimacy skills is important to a developmental pathway towards intimate relationships and appropriate sexual behaviour in adulthood. Attachment style relates not just to intimacy and sexuality but also to a range of psychopathology, with insecure attachment being associated with poorer outcomes (Sroufe, 2005). However, those with secure attachment are not necessarily immune to difficulties and insecure attachment does not always mean an individual will have problems, although the former tends to promote psychological well-being and healthy sexuality while the latter is a risk factor, especially for fearfully attached individuals (Sroufe, 2005). Research to date demonstrates that people with OCSB experience more insecure attachment and difficulties with affect regulation and successfully providing or obtaining comfort and support from relationships (Bancroft & Vukadinovic, 2004; Faisandier et al., 2012; Reid et al. 2008). It is thought that sexual behaviour thus becomes a way of meeting a range of unmet attachment, emotion regulation, and intimacy needs (Salisbury, 2008).

Summary

This chapter has presented the current state of the OCSB literature including emerging ideas linking OCSB with intimacy and attachment deficits. Progress has been made in the nosological debate although there is still not an agreed upon term or construct in the literature,

nor is there a formal diagnosis for OCSB. It appears that reaching a consensus on how best to describe and define OCSB will be a considerably long-term goal, requiring robust research efforts. The epidemiological information available on OCSB is lacking due to the nosological problems in the literature, and requires further research to enhance the accuracy around what is known about who is affected by OCSB and whether there are gender and cultural differences. Both nosological and epidemiological advances are required in order to establish an empirically supported etiology. However, in the interim there is growing support for the notion of self and affect regulation difficulties as well as problems in attachment and intimacy playing an important role in causing and maintaining OCSB. These contributing factors are a potential way forward in understanding how to treat those experiencing OCSB and to develop viable prevention efforts in the future. The next section turns to a consideration of the OCSB treatment literature to date.

CHAPTER THREE: OCSB TREATMENT AND OUTCOME RESEARCH

This chapter discusses treatment approaches for OCSB that have been described in the literature. As the literature focus to date has been on nosology and definition, there are few studies examining treatment. The ten studies to date are presented and evaluated.

Treatment Approaches

The treatment of OCSB is in its infancy, particularly when it comes to treatments that have been rigorously evaluated (Reid, 2013). Patrick Carnes was the first to suggest a treatment approach for OCSB and he based this on the behaviourally focused 12-step programme 'Alcoholics Anonymous' which is linked to an addiction model (Carnes, 1983, 1989, 1991). Since then, there has been increased discussion of pertinent factors in the treatment of OCSB (Adams & Robinson, 2001; Briken et al., 2007; Goodman, 1993; Griffen-Shelley, 2009; Kaplan & Kruegar, 2010; Katehakis, 2009; Leedes, 1999; Orzack & Ross, 2000; Phillips, 2006; Reid, 2007; Schwartz & Masters, 1994; Wright, 2010). Several articles have described current treatment practices, many of which resemble modalities common to those used in treating substance addiction even when 'sexual addiction' was not the term or definition. These treatments will be described and treatment effectiveness discussed subsequently.

These treatments include 12-step models (Wright, 2010), residential programmes (Klontz, Garos, & Klontz, 2005; Nerenberg, 2000; Wan, Finlayson, & Rowles, 2000), group psychotherapy (Line & Cooper, 2002; Orzack, Voluse, Wolf, & Hennen, 2006; Qualand, 1985), cognitive behavioural treatments (CBT; Briken et al., 2007; Shepherd, 2009), family systems approaches (Phillips, 2000), couples therapy (Turner, 2009), and pharmacological treatment (Samenow & Finlayson, 2010). A few additional studies have examined novel approaches such as acceptance

and commitment therapy (ACT; Twohig & Crosby, 2010), online self-help programmes (Hardy et al., 2010), and an approach which focuses on developing intimacy skills (Salisbury, 2008).

Generally speaking, the use of a particular term for OCSB does not map onto the treatment approach used by the clinician or researcher, as the use of a chosen term simply indicates their preference for it often based on their own research. The exception to this is the term 'sex addiction' in terms of 12-step group approaches which are traditional self-help interventions for 'addictive' behaviours (Wright, 2010). The inability to map treatments onto the various suggested terms for OCSB reflects the relative infancy of the research on explaining and evaluating treatments and highlights the need for research to focus on this important task.

Residential Care

Residential programmes for OCSB are common in America and are usually based on the conceptualisation of OCSB as an addiction. These can involve 24 hour a day care that often shifts into out-patient aftercare following the recovery stage of treatment (Klontz et al., 2005; Wan, et al., 2000). Treatment modalities in residential settings vary depending on the theoretical position of those running the programme but commonly can involve group and individual work that includes psychoeducation, cognitive behavioural therapy (CBT), trauma resolution, social skills training, addressing co-existing mental health problems, partner work, and adjunctive pharmacotherapy for co-existing mood or anxiety disorders. Sometimes these programmes are adjunctive to a broader addiction facility for substance disorder treatment (e.g., Wan et al., 2000).

Twelve-Step Programmes

Twelve-step groups derived from Alcoholics Anonymous (AA) are also commonly used by those experiencing OCSB and are usually based on the idea of sex as an addiction, with a heavy spiritual or religious component. International support groups include Sex and Love Addicts Anonymous, Sex Addicts Anonymous, and Sexaholics Anonymous. Such groups are described to

follow 12 steps of recovery from compulsive behaviour in a supportive group environment that includes peer sponsor support (Wright, 2010). The 12 steps in relation to 'sex addiction' as adapted from AA (Sex and Love Addicts Anonymous, n.d).

1. We admitted we were powerless over sex and love addiction - that our lives had become unmanageable.
2. Came to believe that a Power greater than ourselves could restore us to sanity.
3. Made a decision to turn our will and our lives over to the care of God as we understood God.
4. Made a searching and fearless moral inventory of ourselves.
5. Admitted to God, to ourselves and to another human being the exact nature of our wrongs.
6. Were entirely ready to have God remove all these defects of character.
7. Humbly asked God to remove our shortcomings.
8. Made a list of all persons we had harmed, and became willing to make amends to them all.
9. Made direct amends to such people wherever possible, except when to do so would injure them or others.
10. Continued to take personal inventory and when we were wrong promptly admitted it.

11. Sought through prayer and meditation to improve our conscious contact with a Power greater than ourselves, praying only for knowledge of God's will for us and the power to carry that out.
12. Having had a spiritual awakening as the result of these steps, we tried to carry this message to sex and love addicts and to practice these principles in all areas of our lives.

New Zealand has Sex and Love Addicts Anonymous (SLAA) which is available at several locations throughout the country. Information on how to locate a group can be accessed through head offices in Auckland or Wellington as well as their respective websites. Groups are run by individuals who themselves have experienced OCSB and groups are either closed (not open to those who are not experiencing OCSB) or open (to partners or support people). Depending on the individual and availability of groups attendance may be once per week for 1-2 hours or up to once per day. Groups may also be limited to women or men only (Sex and Love Addicts Anonymous, n.d).

A further component of SLAA is that group members are paired with a sponsor within their group, who is someone that they can contact as required if they experience difficulties with OCSB in-between meetings (Wright, 2010). Sponsors can help the person avoid acting out sexually by allowing the individual a chance to receive support, advice, or distraction until the urge passes. SLAA is a very private group and does not promote themselves to the public or participate in media opportunities that are not anonymous, as they value anonymity for all members (Sex and Love Addicts Anonymous, n.d). As such, there is no published research examining such groups, for example how the groups work or outcomes for members other than the article by Wright.

Group Work

Some residential treatment facilities as well as outpatient services use group work as their primary modality for working with OCSB, and these groups differ from SLAA in that they are run by professionals (Nerenberg, 2000; Orzack et al., 2006). There are a variety of group work structures depending on the modality of the treatment facility or service. The general therapeutic factors within group work that were identified by Irvin Yalom include experiencing hope, universality, didactic instructions, altruism, corrective emotional experiences, social learning, modelling, interpersonal learning, sense of belonging, catharsis, and existential factors (Nerenberg, 2000; Yalom & Yalom, 1990). A 16-week programme of sexual addiction recovery is used in the United Kingdom which is based on cognitive behavioural therapy and additionally addresses the concept of narcissistic damage caused by childhood trauma and the resulting sexualisation of this (Birchard, 2011; Hall, 2006).

This 16-week programme was described to involve psychoeducation, making a 'sex plan' (which was not described), addressing family of origin and trauma, working with cognitive distortions about sex (e.g., sex has to be spontaneous to be enjoyable), and involves homework exercises, although none of these features of the group were elaborated on by the author (Birchard, 2011). Outcome studies for this programme are underway but results are yet to be published (Birchard, 2011). One advantage of treating OCSB within a group, residential, or 12-step programme is that people can offer support as well as challenge each other (Line & Cooper, 2002).

Cognitive-Behavioural Therapy

Cognitive-Behavioural Therapy (CBT) is commonly involved as part of the various residential, group, and individual treatment approaches to OCSB (Briken et al., 2007; Line & Cooper, 2002; Shepherd, 2009). CBT for OCSB can include work to identify and modify beliefs,

alert the client to high-risk situations, identify specific precursors to relapse, and rehearse new behaviours (Birchard, 2011). Shepherd (2009) described CBT treatment for a single case who attended six one hour therapy sessions for OCSB that involved seeking multiple sexual partners online. The first four sessions were weekly and the remaining two were fortnightly (Shepherd, 2009).

Treatment components identified by Shepherd included setting targets for behaviour including how much time was spent online and the number of casual sex partners. Cognitive strategies included distraction and cognitive rehearsal of his reasons for attending therapy (e.g., relationship and occupational impairment), as well as identifying thoughts before, during, and after sex and challenging unhelpful thoughts (e.g., “One day I will find phenomenal sex” and “If I find phenomenal sex I will no longer be a failure”). In the second half of therapy, the focus shifted to challenging beliefs about sex (e.g., “For sex to be good it should be spontaneous”) through the use of thought records and behavioural experiments (e.g., delaying meeting a casual partner for sex).

In addition, these last sessions focused on challenging perfectionism, which was identified earlier on in therapy as contributing to a core belief that the client was a failure. A two-month follow-up session was also held to review the gains he had made and to consolidate learning around perfectionism (e.g., seeing a lapse into old behaviours as failure vs opportunities for learning; Shepherd, 2009). This case study provides a detailed and personalised example of how CBT can be used as a therapy for OCSB; however further research using methodologies that can determine treatment effectiveness is required.

Stages of Change and Motivational Interviewing

Stages of change was originally developed by Prochaska & DiClemente for substance-using populations but has recently been applied to OCSB (Shepherd, 2009; Orzack et al., 2006;

Prochaska et al., 1991). The stages of commitment to change include pre-contemplation, contemplation, determination, action, maintenance, and relapse (Orzack et al., 2006). Precontemplation involves not yet considering change, contemplation involves a consideration that change is desired, determination involves a stage of planning for change, action involves acting on change, maintenance involves actively continuing the changes that have occurred and relapse includes reverting back to previous behaviours (Orzack et al., 2006). The stages of change are often talked about in relation to motivational interviewing, as they are complimentary approaches (Miller & Rollnick, 2002).

Motivational interviewing (MI) is usually supplementary to other treatment approaches rather than being delivered as a sole treatment for OCSB, such as combining CBT and MI (Shepherd, 2009; Orzack et al., 2006). MI was originally developed for use with individuals experiencing substance use disorders and traditionally involves working with their ambivalence about change, which can occur at any stage of change, however is most evident in the pre-contemplative or contemplative stages (Miller & Rollnick, 2002, 2013). One study assessing motivation to change in hypersexual client found rates of 70% ambivalence, providing a rationale for using MI as part of therapy for clients seeking assistance to increase the likelihood of therapy success (Reid, 2007).

The aim of MI is to use particular types of questioning to increase the individual's motivation to act on changing their problematic behaviour, and to anticipate and work with resistance against change (Miller & Rollnick, 2002, 2013). Types of questioning include looking at the 'good things' and 'not so good things' about change, 'rolling with resistance', eliciting 'change talk', and asking why the individual would want to change, how important it is for them to do so, and how confident they are that they can (Miller & Rollnick, 2002). Although they state they used MI, Orzack et al.'s study does not discuss using these methods, they utilise the stages of change with a focus on "building problem solving strategies to help them change their current situation" (p. 350). They

may have used MI, however, this is not described in the syllabus they provided (Orzack et al., 2006).

Acceptance and Commitment Therapy (ACT)

ACT has been used specifically in the treatment of problematic pornography viewing. An ACT approach posits that urges to view pornography may occur but that the client has the choice as to whether they act on the urges, and particular skills are taught to notice and accept urges without acting on them (Twohig & Crosby, 2010). In this study, **participants'** personal values were identified and they were supported to engage in committed action towards reducing their pornography viewing, while becoming more present and accepting of their inner experience (Twohig & Crosby, 2010). Treatment components in this study included seven to eight sessions focusing on various elements of ACT.

Session one and two covered acceptance and setting goals on either reduced porn viewing or abstinence, including particular ACT metaphors and exercises. Session three continued on acceptance and discussed client values, worked towards committed action of gradually reducing viewing, and willingly experiencing any urges to view pornography without acting on them. Sessions four to six focused on cognitive defusion, the skill of becoming mindful to inner experiences and choosing to act in ways that are consistent with valued goals (e.g, being monogamous to a partner; managing anxiety without sexually acting out). The final two sessions reviewed progress made, assessed the consistency of behaving in ways that are valued, and covered relapse management (Twohig & Crosby, 2010). This is the only study to date that has explored ACT as a therapy approach for OCSB and shows promise for helping clients with pornography viewing. Further research is recommended to replicate and extend this finding, particularly for non-pornography forms of OCSB which may or may not have additional treatment needs.

Online Programmes

As technology has advanced to open up the possibility of online treatments for some disorders, an online psychoeducational programme for pornography OCSB was recently launched that is based on OCSB as an addiction (Hardy et al., 2010). This programme involves ten self-paced modules that are delivered via a range of media such as video, audio, and interactive exercises. In addition, group forums, blogs, and personal coaches are available in a similar fashion to 12-step group support (Hardy et al., 2010). The programme is based on CBT and aims to identify problematic pornography use as a method of dealing with life difficulties, restructuring maladaptive cognitions (e.g, negative self-appraisal, low self-efficacy, low impulse control, society anxiety, obsessive thoughts, and postponing behaviour), and presenting strategies for emotion regulation (Hardy et al, 2010).

Psychopharmacology

Usually an adjunct to therapy, pharmacological approaches that treat underlying anxiety or depression as well as medications that reduce hormones have been used in the management of OCSB (Samenow & Finlayson, 2010). OCSB has been treated with antidepressant SSRI medications (Wainberg et al., 2007). In cases where there is co-morbid bipolar disorder and SSRIs are contraindicated, mood stabilisers can also have some success (Samenow & Finlayson, 2010). Naltrexone, a dopamine antagonist that blocks the reward response, has also been studied as a treatment for OCSB symptom management to complement SSRI use, with reductions in OCSB (Bostwick & Bucci, 2008; Raymond, Grant, Kim, & Coleman, 2002). The mechanisms through which SSRIs may be helpful to individuals with OCSB are unclear, and the reduced sexual response effects on both desire and experiencing orgasm have been suggested to be one of the ways in which they can work (Bancroft, 2008).

In addition to these treatments, general psychotherapy for OCSB has been described to involve repairing early disruptions to attachment by encouraging interactions with others which are not dysfunctional and preventing fears about sabotaging such connections, and being supported to do this via the therapist, although like most of the other approaches this type of therapy has not been formalised or evaluated (Schwartz & Masters, 1994; Schwartz & Southern, 1999).

Treatment effectiveness

While there is much discussion of OCSB treatment practices, there is considerably less research on the effectiveness of such treatments with only ten published studies to date and not all of these methodologically sound enough to make conclusions about effectiveness (see Table 1). Nine of these studies occurred in the past 13 years, indicating both the relative infancy of the available evidence on treatment effectiveness and the recently emerging interest in conducting such research. Most studies used a pre-post design with none utilising an RCT methodology, although several used an experimental design that included a control group. One used single-case design and one was a case study, which is not a methodology used to determine treatment effectiveness as it describes the outcome for one individual without replication (Blampied, 2001). Most of the participants in the samples studied were Caucasian men and some included only gay or bisexual participants, so findings do not tell us about women or heterosexual individuals with OCSB or those of non-European ethnicities.

The various studies each used different terms for OCSB identified in the literature, ranging from sex addiction, sexual compulsion, problematic internet sexual behaviour, and hypersexuality. They used different methods of measurement with not all these being validated methods (e.g., compulsive sexual behaviour being measured only by behavioural self-report; Qualand, 1985) and others used psychometric measures that are specific to capturing a particular

definition of OCSB (e.g., sexual addiction measured by the Sexual Addiction Screening Test; Wan et al., 2000), or features commonly occurring with OCSB that were considered important by the authors (e.g., assessing mood using the Beck Depression Inventory, Orzack et al., 2006). Table 1 summarises the methodological approaches used by the ten published studies which will be evaluated in further detail subsequently.

Table 1

OCSB treatment effectiveness studies to date

Author, Design, N	OCSB term/definition	Interventions used	Measurement	Outcome
Qualand (1985), experimental design, group therapy for homosexual and bisexual men, N = 30 (mean age 34.5 years), 50% response rate. Control group involved a range of psychotherapy clients.	Compulsive Sexual Behaviour (CSB) - self-identified.	Behavioural logs, contracts with other group members, behaviour change, support with mentors, gaining insight into underlying behaviours over 20 weeks of group sessions.	Pre- and Post-: behaviour self-reported: number of sex partners, number of one night stands, sex in public settings, use of substances with sex, and being in a current committed relationship.	Significant reductions at six month follow-up. Mean sexual partners in past month reduced from 11.5 to 3.3; one night stands reduced from 82.3% to 19.6%; public sex reduced from 62.3 to 16.1%; substance use reduced from 2.97 to 3.92 (on a likert scale with 1 – 5 being always - never); relationship status changed from 20% in a relationship to 40%.
Wan, Finlayson, & Rowles (2000), retrospective survey of clients who attended a residential setting, N = 59 (M = 41, W = 18; mean age 42 years), 29% response rate.	Sexual Dependency – according to scores 13> on Sexual Addiction Screening Test (Carnes, 1989).	Generic 28-day residential treatment programme for any 'addiction'. Involved psychoeducation, group therapy, 12-step meetings, individual therapy, and a support programme for partners and families.	Post-treatment: A 36-item structured phone interview, asking about the sexual behaviours identified in treatment, recovery outcomes, quality of life, and perception of the programme.	Identified a 71% relapse rate of some or all behaviours identified in treatment. Most reported reductions in frequency, monetary expenditure, and an improved quality of life, sense of control, and confidence in maintaining these goals.
Nerenberg (2000), retrospective survey of a residential group psychotherapy for men with OCSB, N = 40 (ages not provided). Participant selection method not described.	Sexual Addiction – definition not provided.	Residential Program at Keystone Center's Extended Care Unit - the Center for Health from Sexual Compulsivity and Trauma. Treatment length ranged from 1 – 6 months. No description of the programme content was provided other than the 11 principles of group therapy which are described in the measurement column.	Likert scale to show which 11 principles of group therapy were the most helpful including: instillation of hope, universality, imparting information, altruism, corrective recapitulation of the primary family group, socialisation techniques, imitative behaviour, interpersonal learning, group cohesiveness, catharsis, and existential factors.	All 11 items were endorsed as very helpful by all participants with catharsis and cohesion being rated the highest. "Revealing embarrassing things about myself and still being accepted by others" was rated as the most healing aspect of group therapy. In other words a sense of acceptance.

Author, Design, N	OCSB term/definition	Interventions used	Measurement	Outcome
Klontz et al. (2005), pre-post design, eight-day treatment programme, N = 38 (M: 28; W: 10, mean age 44.1), 71% response rate. No comparison group.	Sexual Addiction – self-defined.	32 hours of intensive group experiential therapy utilising psychodrama, 12 hours of psychoeducational seminars, completed homework exercises, and 2 hours of mindfulness per day. Aftercare included 12-step meetings.	Pre- and Post:- Brief Symptom Inventory (BSI; Anxiety, Depression, and Obsessive-Compulsive subscales), Garos Sexual Behaviour Inventory (GSBI; Sexual Obsession, Discordance, Permissiveness, Stimulation subscales; Garos & Stock, 1998).	On the BSI, significant post-treatment reductions were maintained at 6-month follow up for the subscales, with low effect sizes ($\eta^2 = .21 - .41$). On the GSBI, significant reductions on Sexual Obsession occurred post-treatment ($\eta^2 = .44$) but not on the other subscales, although by the 6-month follow up there were significant reductions on the Discordance scale in terms of less conflict, shame, and remorse ($\eta^2 = .21$).
Orzack, Voluse, Wolf, & Hennen (2006), pre-post design, Group CBT and Motivational Interviewing for men, N = 35 (mean age 44.5). No comparison group.	Problematic Internet-Enabled Sexual Behaviour – structured interview to diagnose paraphilia (NOS) or impulse control disorder (NOS).	Five closed groups that covered a 16-session treatment programme of Psychoeducation, CBT, Motivational Interviewing, and a behavioural component whereby group members were to make two phone calls to group members per week.	Pre- and Post:- Beck Depression Inventory-II, The Basis-32 (quality of life measure), and the Orzack Time Intensity Survey (OTIS; Orzack, 1999) to measure online activity (note this includes all types of online activity, not just sexually related).	Significant improvements in BASIS-32 scores and significant reductions in the BDI-II but not the OTIS.
Salisbury (2008), case study design using 30 sessions of intimacy-focused therapy for a man (age 53)	Self-identified OCSB including bestiality (sex with animals).	Individual therapy sessions working on three focuses that include: 1) building non-sexual intimacy with the therapist, 2) developing intimacy with self, and 3) extending these skills to form intimacy with others.	Self-reported sexual behaviour and relationship goals and clinical observations by therapist.	Reduction in incidence of sex from 4-2 times per day, developing intimacy with self (affect regulation without sexualising this), and improved intimate relationship with his wife as well as non-sexual relationships (family)
Shepherd (2009), Motivational Interviewing and CBT case study of a homosexual man (age 41).	Sexual Addiction – unstructured interview. DSM-IV criteria for substance abuse applied to sexual behaviour.	Six sessions of CBT that involved a behaviour change programme, cognitive strategies, challenging beliefs about sex, and challenging perfectionism. Two month follow-up session.	Self-reported frequency of sexual partners and the hours spent online at work each week.	Reductions were seen on both the weekly frequency of sexual partners (from 7 to 2) and the hours spent online at work (from 4 to less than 1).

Author, Design, N	OCSB term/definition	Interventions used	Measurement	Outcome
Twohig & Crosby (2010), single-case, multiple-baseline study of individual Acceptance and Commitment Therapy for men, <i>N</i> = 6 (mean age 26.5), 100% response rate.	Problematic Internet Pornography Viewing – self-defined.	Eight weeks of 1.5 hour ACT sessions	Behaviour self-reporting of hours spent viewing pornography, validated measures for the following: Quality of Life, Obsessive Compulsion, Acceptance and Action, Thought Action Fusion, Thought Control, and Scrupulosity	85% reduction in viewing was found at end of treatment, with this largely maintained at a 3-month follow-up point (83%). Significant improvements in quality of life and scrupulosity were found.
Wright (2010), twelve-step groups with men, time-lagged design, <i>N</i> = 97, (mean age 50.96).	Sexual Compulsion – self-defined.	Participation in 12-step support groups for sexual compulsivity (e.g., Sex and Love Addicts Anonymous)	Online survey for the person with OCSBs partner to complete regarding their sexual compulsivity, meeting attendance, and sponsor work.	Meeting attendance and sponsor work at the initial stage (of identifying that the behaviour was a problem), were negatively related to sexual compulsivity
Hardy et al. (2010), online survey of members of an online treatment programme, <i>N</i> = 138 (M: 134; W: 4; mean age 37.97), 16.5% response rate. (51% were of Mormon religious affiliation).	Hypersexuality – with a focus on problematic pornography viewing and masturbation.	CANDEO is an online treatment programme based on CBT and primarily designed for problematic pornography/masturbation. It involves ten self-paced, psychoeducational modules delivered online, with exercises and homework to complete.	Online survey about the perceptions of relative helpfulness of CANDEO, perceived extent of recovery, pre- and post-psychological and behavioural dimensions of recovery.	Participants reported CANDEO as more helpful than other forms of treatment and perceived the extent of their recovery as greater from using CANDEO. There were significant improvements on post-tests for the psychological and behavioural domains, with large effects ($\eta^2 = .52 - .85$).

Note. M = men, W = women, η^2 = effect size

Evaluation of the Treatment Effectiveness Studies to Date

Definition and Measurement Issues

Defining the construct and selecting robust measures to capture the construct occurs prior to choosing a method to test a particular hypothesis or answer a research question (Kazdin, 2003). The current issue in the OSCB literature of a lack of agreed-upon term, definition, and method of measurement is seen in the variety in which these various authors chose to define and measure OCSB. There were different definitions for OCSB and different measures to capture the behaviours that were deemed important by the various authors including 'sexual dependency' (defined by a SAST score higher than 13; Wan et al., 2000) which has a focus on sexual behaviour. Klontz et al. used the term 'sexual addiction' and used the Garos Sexual Behaviour Inventory (GSBI; Garos & Stock, 1998) which has a focus on four domains – conflict and shame over sex, values about sex (traditional vs liberal), sexual preoccupation, and level of comfort with sexual arousal. Shepherd (2009) also defined the behaviour as 'sexual addiction' but did so using DSM-IV criteria for substance dependence which focuses on a loss of control, development of tolerance, and impairment in function (APA, 1994). Other researchers used 'self-defined' OCSB with Nerenberg (2000) not providing a definition for this while Wright (2010) used a 3-item self-report, and two studies focused on online OCSB (Orzack et al., 2006; Twohig & Crosby, 2010).

These examples of definitions vary considerably and it is not clear whether each definition describes the same construct although there may be some similarities, such as distress about sexual behaviour and a desire to seek treatment. For example, 'self-defined' sexual addiction is a subjective measure compared to a cut-off on a psychometric measure like the SAST which is very specific and behaviourally focused (Carnes, 1989). The SAST is different again to the GSBI in the way it focuses on behaviour rather than different domains to do with feelings towards sexual behaviour and experiences and preoccupation with sex (although a review found that the preoccupation and conflict and shame subscales correlated well with the SAST and indicates that

these measures may be capturing OCSB in similar ways; Hook, Hook, Davis, Worthington, & Penberthy, 2010). As such, comparisons across these studies are useful; however the lack of a defined construct and standardised method of measurement makes it difficult to know exactly how the results compare. For example, the severity of OCSB may be different in these samples and the notion of there being possible subgroups within OCSB (e.g., impulse-control vs compulsion, vs hypersexual) could apply. Some studies may have included individuals with OCSB at the low end of the continuum versus others which had participants with OCSB of a greater severity, and some may have been working with individuals with very specific types of OCSB. For example, the 'problematic internet pornography viewing' described by Twohig and Crosby (2010) and Orzack et al. (2006) may or may not have different treatment needs to other behavioural presentations such as multiple partner sex (e.g., behavioural change including cutting ties with sexual partners).

In terms of measuring online sexual behaviour as a type of OCSB, Twohig and Crosby (2010) used hours spent online watching pornography while Orzack et al. used a psychometric measure designed to capture internet use behaviour that was not specifically sexual (Orzack Time Intensity Survey, OTIS; Orzack, 1998). Again this makes comparisons across these studies difficult as time spent engaging in online sex is very specific while the OTIS looks at various aspects of the negative impact on life from excessive computer use. The first item is 'having spent more than 3 continuous hours on the computer' which is different to hours spent looking online at pornography. In Twohig and Crosby's study, only one participant spent over 3 hours viewing pornography in one day, and it was not recorded if this was continuous or over multiple times in the day. The remainder of the OTIS (e.g., missed sleep or meals, using the computer to lift mood) could be affected by using the computer for other purposes (e.g., Skype, doing accounts) and so does not necessarily reflect OCSB-related impairment. The sample may have

had more overall problematic internet use (e.g., excessive use of games and social media) and so may be a different population to other individuals with OCSB.

Some studies measured OCSB based on behavioural outcomes (including mental fantasy as behaviour). In these instances, changes across studies can be compared in terms of reductions in particular sexual behaviours reported. For example, Qualand's (1985) study found reductions in number of sexual partners, public sex, and one night stands while Twohig and Crosby (2010) found large reductions in internet pornography viewing. Klontz et al. (2005) found significantly reduced sexual obsession while Shepherd's (2009) case study found reduced sexual partners over the past month (from 7 – 2), and less hours spent online per day (from 4 – 1 hour). These studies indicate that, where behaviour reductions are sought and targeted, these treatments were helpful in achieving this.

However, there are some problems to focusing solely on behaviour change such as the frequency and duration of sexual thoughts, feelings, or acts. The OCSB literature highlights the importance of control over sexual behaviour, however, functional impairment and distress are also key indicators of the disorder, due to the subjectivity of using the quantity or type of sexual behaviour to determine 'normal' sexual behaviour (Reid & Woolley, 2006). Most of these studies did not examine distress or impairment in functioning in terms of therapy outcomes. In addition, the quality of intimacy and relationships are important determinants of sexual wellbeing, and affect-regulation difficulties are found to positively correlate with OCSB, however, these have not been considered in outcome studies to date (Bancroft & Vukadinovic, 2004; Collins & Sroufe, 1999; Marshall & Marshall, 2010; Reid et al., 2008, 2009, 2010).

Research Design Issues

In addition to measurement issues, not all these studies utilised a sufficiently rigorous methodology to determine effectiveness according to evidence based standards (Wells, 1999, Kazdin, 2003, 2008). Those that used group-based experimental design were not considered

RCTs because they did not have a control group and the group that used a control group did not use a comparative sample, as they were 'general psychotherapy clients' rather than those with OCSB (Qualand, 1985). RCTs, as already noted, are used to establish the efficacy of a treatment and as such requires a level of sophistication in the existing research on the treatment/s being compared (e.g., having been manualised; Kazdin, 2003; Wells, 1999). As treatment effectiveness in the field of OCSB is an emerging area, this level of sophistication required is not yet possible, and so these group design studies of various treatment approaches should be considered preliminary and their findings exploratory in nature (Wells, 1999). Each study contributes useful information that can guide future research as it works towards establishing effective, and eventually efficacious, treatments with a view towards a 'gold standard' of treatment for this population.

In terms of adhering to the treatment described by the authors of each study, most did not attempt to manualise or define the treatment or measure the level of adherence to that treatment under investigation. As these studies are preliminary, the treatment adherence level, or degree of integrity to the therapy under evaluation is lesser than that required of an RCT, however most studies did not reach this necessary level (Perepletichikova, 2011). The required level for a preliminary study is that the treatment providers are trained in the approach, that the treatment delivery is monitored, and that data on the treatment adherence is reported (Perepletichikova, 2011). The exception to this was Twohig and Crosby's (2010) study, which met this minimum level and also used a treatment manual which increases treatment adherence (Perepletichikova, 2011).

Orzack et al. (2006) state that "group therapy is one of the most effective treatments for problematic sexual addictive behaviour" (p. 350), however, the studies cited to support this claim did not use a design that meant they did determine effectiveness, including one unpublished study, one with a sex offender sample, and one exploring OCSB in gay men with AIDS.

Nerenberg (2000) similarly concluded that “group psychotherapy in a residential setting appears to be a highly effective treatment modality for sex addicts” (p. 208), yet they did not use a methodology that evaluated effectiveness. Nerenberg’s study was not experimental in design and simply involved a post-therapy questionnaire evaluating the perceived beneficial aspects of group therapy. While it offers information about what individuals with OCSB perceived to be useful in their group, this information cannot be extrapolated to other group treatments or others with OCSB. It also says nothing about problematic sexual behaviour outcomes, level of control over sex, or distress and impairment resulting from sex, which are together considered to be hallmarks of OCSB (Reid & Woolley, 2006).

Others evaluating group therapy approaches are unable to extrapolate findings to other groups as they did not include information about group content or adherence to this (Orzack et al., 2006; Wright, 2010). Orzack et al. (2006) provided an “example of a basic weekly agenda hand-out” for their semi-structured group treatment they did not report the level of training of the group facilitator/s, discuss whether or not adherence was monitored directly or indirectly, nor did they report data on this. As such, it makes it difficult to know what the group comprised, the degree to which it was adhered, and this will make accurate replication by future researchers difficult. Wright (2010) also did not report on the content of the 12-step groups attended, which varied across participants who were recruited from various groups across the USA and Canada. The degree to which the various groups’ content differed is unknown and the level of adherence to the 12-steps was not reported. 12-step groups such as Sex and Love Addicts Anonymous have 12-steps which are worked through in order; however, the format for doing so may have varied between groups as adherence to the content was not monitored (Sex and Love Addicts Anonymous, n.d). Thus, it is unknown whether it was the group content or simply attendance with supportive and likeminded others that accounted for reductions in OCSB, which was assessed

using 3-self-report items about perceived sexual compulsivity (Wright, 2010). There are no other studies available to determine outcomes or effectiveness of such groups.

A particular problem is that there was no formal description of the therapy content in the studies that were evaluating the same type of therapy approach, such as those using CBT. There was no manual or method of evaluating treatment integrity utilised to determine what the treatment actually involved and the degree to which it was adhered to, and therefore it is impossible to evaluate whether or not these treatments were similar between studies (Orzack et al., 2006; Shepherd, 2009). Shepherd described treatment the most clearly and elaborately, however this was just for one individual as the design was a case study. Salisbury (2008) also used case study methodology to describe her intimacy-focused treatment for a client with OCSB. This therapy approach is novel within the OCSB field because it involves an integrated approach designed to assist the full range of OCSB experiences using an overarching intimacy-focused therapy approach. However, case study design is not able to demonstrate effectiveness of a therapy and so further examination of both Shepherd and Salisbury's treatment approaches is warranted (Blampied, 2001).

Several of the studies used an experimental group design to capture changes between pre- and post-treatment, and some had follow-up points of up to six months to consider how changes were maintained after therapy finished (Hardy et al., 2010; Klontz et al., 2005; Orzack et al., 2006; Qualand, 1985; Wan et al., 2000). However, only Qualand's (1985) study involved a control group and that group comprised psychotherapy clients rather than those with OCSB, so the comparison is meaningless, as the control group does not function as a true control for the target problem. For an experimental study to robustly demonstrate the efficacy of a treatment it should include a control group with the same target problem and standardised conditions into which participants are randomised, in order to establish overall group differences and determine the success of treatment (Wells, 1999). Thus these studies showed what happened over the course

of treatment for a sample with OCSB but cannot determine how this might have differed from a control group with OCSB or rule out the effects of time on OCSB.

RCT results can be applied to populations but not to individuals (Blampied, 2001). Twohig and Crosby's (2010) methodology was unique in that it looked at individual outcomes, however, this overlooked including effect sizes which are important in determining the magnitude of any changes (Olive & Smith, 2005). Only two of the nine studies calculated effect sizes, with one of them finding effects ranging from low to moderate, indicating the degree of change was not large, although small to medium reductions were seen for reductions in sexual obsession (Klontz et al., 2005). Hardy et al. (2010) found moderate to large effects at post-intervention in terms of psychological and behavioural domains. Lastly, in determining the efficacy of a treatment, replication of findings is required. However, none of these experimental studies have been replicated.

Two studies used retrospective surveys of OCSB outcomes and compared these with the behaviours and goals identified in treatment. Retrospective accounts are useful as they allow participants to describe their experiences in a structured or semi-structured verbal or written format, however are vulnerable to the effects of social desirability as participants were not blind to the aim of the survey and in two cases were reviewing how helpful the treatment was for them (Nerenberg, 2000; Wan et al., 2000). In Nerenberg's study, the methodology was not elaborated on and so information on the recruitment method, group content and structure, measurement, and data analysis are unknown, which makes it impossible to gauge whether or not the method was robust in establishing effectiveness of the treatment group. There were 40 group participants who completed the survey but the sum of non-completers was not provided, nor was the time period for the group, or the time-frame for completing the survey. In addition, in another retrospective study's follow-up, 23 and 25 of the 59 participants were still engaged in a recovery plan or 12-step group, respectively, which shows that the amount of treatment received varied

and the longevity of treatment effects unclear as a form of treatment was still occurring for nearly half of participants (Wan et al., 2000). As such, these studies are valuable in the information they provide but this should be considered to be exploratory in nature and not conclusive about the effectiveness of these group therapy approaches.

Twohig and Crosby's (2010) single-case study used a multiple baseline design that replicated treatment effects over multiple participants with different treatment onset points, and participants' baseline acted as their own control. This design is considered to be an appropriate method for exploring treatment effectiveness at an individual level with replication across participants (Blampied, 2001; 2013; Borckardt et al., 2008; Christ, 2007; Watson & Workman, 1981). This study's findings would have been strengthened had non-concurrent multiple baselines been used, which mimic the nature of real-world referrals and can also rule out extraneous historical effects as treatment occurs over different time points (Watson & Workman, 1981).

A final issue in establishing the effectiveness of the treatments was that the retention rate of samples ranged from low to high (16.5 – 100%) and for several of these studies a large number of participants either dropped out or did not respond to requests for participation in data collection, leaving doubt as to what the outcomes were for them. This was particularly true for Wan et al. (2000) who had the lowest response rate in their retrospective phone survey, and of the 29% who responded there was a 71% relapse rate found in some or all behaviours identified in treatment. The ACT study had the highest completion rate at 100% and 3-month follow-up data indicated pornography viewing reductions or cessation had been maintained for all, although the sample size was only six and treatment sessions ranged from just one to six, which reduced participant attrition (Twohig & Crosby, 2010).

Summary

In terms of the treatment approaches used to date, educational, behavioural, and support interventions, whether used in a residential, group, or individual setting, appear to be helpful at reducing variably defined OCSB to some degree. However, the methodologies used to determine effectiveness were not sufficiently robust to draw conclusions about the effectiveness of existing treatments, and so these findings can only be considered to be preliminary. Twelve-step, group-work, CBT, online support, and pharmacotherapy approaches, whether they are residentially or community based, may not be targeting all the treatment needs for OCSB identified in the literature. OCSB is a heterogeneous problem with diverse behavioural, motivational, and emotional manifestations. Underlying this diversity, OCSB is considered to involve attachment and intimacy deficits, as has already been described, yet none of the approaches reported focusing on these areas within treatment other than Salisbury (2008), but her research was not a method able to determine effectiveness of the treatment approach. Further research must turn itself to utilising robust methods of evaluation in order to shift this field towards an understanding of effectiveness of the treatments used.

The Current Study

Rationale

This chapter has discussed the research on current treatments for OCSB and their effectiveness. There is a growing body of research describing and examining treatments for OCSB, and the few studies that have been conducted have demonstrated some support for existing approaches. Whilst psychoeducation, motivational and cognitive-behavioural interventions (including ACT) and self-help each have their merits as possible therapies for OCSB, few studies used robust methodology so conclusions are difficult to draw. Only one explored an intervention for developing the capacity for intimacy, suggested to be a causal and

maintaining factor for OCSB (Collins & Sroufe, 1999; Marshall & Marshall, 2010). Consequently, there is no information available as to whether such treatments would be effective or efficacious in comparison to other approaches. In 2008, Salisbury described an integrated treatment for OCSB that is structured around the key focus which is developing the capacity for intimacy. The approach has been used since 2002 by Salisbury and the team at STNZ and for the purposes of the current study was titled Intimacy Focused Therapy (IFT) and formalised (primarily by the researcher) into a set of principles (see Appendix B). As this treatment approach has not yet been evaluated, the current study explored its effectiveness for men with OCSB.

Research Objective

STNZ has been using IFT in practice across New Zealand since 2002, however the therapy approach has not been empirically evaluated and so the effectiveness of it is unknown. In alliance with the scientist-practitioner model, it is important to use treatment approaches that are evidence based; therefore, the objective of this research was to evaluate whether IFT is an effective treatment for men with OCSB.

The literature indicates that individuals with OCSB often experience insecure attachment and intimacy deficits, and a diverse range of difficulties with their sexual thoughts, feelings, and behaviours. These experiences cause them or their partner's distress, leading to a variety of impairments and negative consequences in their everyday lives. Thus it was expected that, at pre-therapy, the 12 participants in this study would be engaging in a variety of different sexual behaviours but all would be experiencing OCSB-related distress and impairment. It is important to note that the aim of the study was not necessarily to reduce or eliminate sexual behaviour but to reduce or eliminate problematic sexual behaviour which, in line with the current definition for OCSB, was determined by the level of distress and impairment resulting from perceived reduced control over sex (Reid & Woolley, 2006). While sexual behaviour was not specifically asked about in relation to whether it was considered by the individual to be problematic or not, the data

analysis aimed to explore the various sexual behaviours of each individual in relation to distress and impairment. The use of the word 'problematic' in the study's second hypothesis is in this context.

Research Question

Is Intimacy Focused Therapy an effective treatment for men with OCSB?

Hypotheses

1. OCSB-related distress and negative consequences will reduce and control over sexual behaviour will increase at post-therapy and follow-up.
2. Problematic sexual behaviour frequency and duration will reduce at post-therapy and follow-up.
3. Intimacy will increase at post-therapy and follow-up.
4. Insecure attachment will reduce and secure attachment increase at post-therapy and follow-up.

CHAPTER FOUR: METHOD

Though almost entirely neglected by contemporary investigators, single-subject research of this kind has a luminous and storied lineage in experimental and clinical psychology. By harnessing time-series designs alongside group experimental methodologies, psychologists will accelerate the progress we are making in understanding the structure and mechanism of therapeutic change. (Borckardt et al., 2008, pp. 92)

Chapter Outline

This chapter outlines the design of the current study and rationale for utilising single case design. The participants are described, the measures used in evaluating the treatment discussed, and a description of the treatment itself provided. The study's recruitment, treatment, and data collection procedures are explained and data analysis process described, with consideration given to relevant ethical issues.

Research Design

This was a treatment effectiveness study founded on the scientist-practitioner model which promotes clinical interventions that are informed by empirical research and support (Kazdin, 2008; Raimy, 1950). The treatment approach, Salisbury's (2008) Intimacy-Focused Therapy (IFT), focuses on developing intimacy skills and is a novel approach that is yet to be formally evaluated. As there has been a call for treatment evaluation research to be relevant and generalisable to clinical practice, the method of evaluation was given due consideration (Barlow et al., 2009; Blampied, 2001). Research on treatment outcomes has tended to favour group-based designs which involve comparing mean differences either between groups or looking at changes within groups over different conditions (Franklin, Allison, & Gorman, 1996).

The use of such designs in treatment outcome research, particularly the use of randomised controlled trials (RCTs), has been critiqued for the inability to look at results for individuals, instead focusing on overall outcomes determined by statistical significance rather than clinical significance, or the effect on everyday life for an individual (Blampied, 2001, 2013; Kazdin, 2003; Krause, 2011). RCTs address efficacy, or how well a therapy works in comparison to a control or other condition, yet this is not the only important feature in treatment evaluation and was not the aim of the current study which was focused on evaluating a new therapy approach (Blampied, 2013; Krause, 2011; Wells, 1999).

In contrast, single-case designs address effectiveness, or whether or not a therapy approach works in everyday settings, including with clients with co-morbid difficulties and can be used with structured or non-structured therapies (Borckardt et al., 2008). Single-case designs have grown in use due to offering empirical analysis at an individual level and have been described as an appropriate alternative to statistical, qualitative, or case-study research approaches (Blampied, 2001, 2013). There are several design characteristics that are used to ensure the research is methodologically sound including at least three replications (demonstrations of the experimental effect) at three different points in time across different cases (Kratochwill et al., 2010). Additionally, while there is no control group, the baseline is designed to act as the individual's own control, and treatment is not usually introduced until this baseline is stable (Richards, Taylor, & Ramasamy, 2014). Comparisons are then made between the experimental conditions which include the baseline and treatment phase with the option of additional follow-up phases to examine the longevity of treatment effects (Richards et al., 2014). Replication over multiple baselines, where the length of baseline varies between individuals, permits inferences about the effects of an intervention on specific behaviours, as it suggests that it is the treatment that is producing the changes (Blampied, 2001, 2013; Kratochwill et al., 2010; Watson & Workman, 1981).

Non-group-based methodologies, like single-case designs, have been suggested to be particularly pertinent in exploratory research before considering comparisons against other treatment conditions (Borckardt et al., 2008). The current study was very much exploratory in nature given the few OCSB treatment outcome studies in existence and the absence of any previous evaluations of IFT. As such, single-case design was selected as the most appropriate methodology as it allowed the examination of individual outcomes (Hersen & Barlow, 1976; Kazdin, 2011; Watson & Workman, 1981).

Adding multiple baselines (3, 5, and 7 weeks) enabled the individual effects of therapy to be observed (Hersen & Barlow, 1976). Continuous measures were used over baseline, treatment, and follow-up phases to capture change over time (Watson & Workman, 1981). A non-concurrent design was selected over a concurrent multiple baseline method as this allowed for real-time referrals to enter therapy (Watson & Workman, 1981). By examining non-concurrent data and between-therapist data, the passage of time and therapist effects were both able to be controlled for, allowing the therapy effects to be more clearly determined (Kazdin, 2011; Watson & Workman, 1981).

Observing changes in participants' behaviours from baseline to post-treatment can show it is the treatment producing the changes as well as address the question of whether or not the treatment was effective (Kazdin, 2003, 2011). The baseline phase shows and predicts what would happen if no intervention was applied by describing the pattern and extent of the specified target behaviour (Blampied, 2001). The stability or consistency of the baseline data is an important pre-requisite for determining whether or not the intervention was effective, as the intervention data is contrasted with the baseline data to show whether or not desired changes occurred and whether or not these occurred post-intervention (Blampied et al., 1996; Franklin, Allison, & Gorman, 1996; Kazdin, 2003, 2011). Replication is required across at least three data sets to determine that the effects are causal rather than due to chance (Blampied, 2001). A stable

baseline is characterised by relatively little variability and the absence of a slope or trend as evidenced by at least three data points (Blampied et al., 1996). It is recommended that the variability of the baseline does not exceed 50% (Hersen & Barlow, 1976). Details of baseline stability in the current study are discussed in the results chapter.

The limitations of using single-case design are that it does not usually isolate which specific parts of the treatment are effective (unless designed to do that). However, in exploratory treatment outcome research, such as the current study, this was not being explored as the focus was on IFT as a whole and whether this treatment is useful (Christ, 2007; Watson & Workman, 1981).

Participants

The literature over the past thirty years contends that OCSB is a diverse experience without empirical consensus on a term, diagnosis, or definition (Guigliano, 2012). Thus the criteria used to define OCSB for the current study were the presence of reduced control over sexual behaviour and subjective distress and impairment related to the sexual behaviour, because they were the most robust indicators of OCSB according to existing research in the field (Reid & Woolley, 2006). Eligible participants were New Zealand English-speaking men who were over 18 years of age and were experiencing subjective distress or impairment resulting from their sexual thoughts, feelings, and behaviour (criteria for this are discussed later). The age of 18 was selected as a cut-off due to the treatment approach used by STNZ being developed for adults rather than children or adolescents. The treatment could potentially be adapted for younger populations or non-English speaking ethnic groups; however that was outside the scope of the current study. Partners were not included directly in the study because the treatment was evaluating individual therapy outcomes; however adjunctive partner work was optional for those with partners as per the treatment protocols which will be discussed later in this chapter.

Participants were drawn from advertisements about the study (see procedure). Men who were interested in receiving treatment for OCSB were invited to email the researcher to find out more about participating. There were 12 places available as this number enabled several replications of the treatment effect while also allowing for some participant attrition. In addition, research funding from the Oakley Mental Health Foundation (\$10,000) was sourced and subsidised the cost of attending therapy. This was necessary as the cost of therapy (\$185 per session for 12 sessions) was prohibitive in initial attempts to recruit participants. The funding enabled this cost to be reduced to \$79 per session for 12 sessions and participants who had previously declined to participate due to cost were then able to take part. This sample was selected based on the first 12 men to make contact, meet the eligibility criteria, and decide to participate.

Exclusion criteria included the absence of OCSB (self-identified and therapist assessment), and the presence of substance dependence or severe mental health problems (including feeling imminently suicidal, which required acute mental health intervention). Additionally, OCSB that involved paedophilia or sex offending was excluded as it was outside the scope of the present study. Participants who were women or under age 18 were also not eligible to participate as the focus of the study was on adult men. Participants were also required to have access and be able to use a computer as they were in email contact on a weekly basis over the study phases in order to collect data.

In all, 49 people made enquiries to take part between February and April 2012 and those who were recruited were the first 12 to agree to participate in the study and met the inclusion criteria. There were 35 others who opted not to take part beyond their first contact, some did not meet inclusion criteria (e.g., one was female) while others had barriers to participation such as the cost of therapy or living too far away from the therapy providers. A further two wanted to participate but missed out due to the 12 places having already been filled. In these instances,

they were informed they could contact STNZ for non-subsidised therapy. The characteristics of the 12 participants are outlined in Table 2 using pseudonyms that are also used throughout the rest of the thesis to ensure confidentiality. Due to the definition of OCSB being in terms of control, impairment, and distress, additional participant information that may also be relevant such as individual sexual history was not collected or provided (e.g., number of sexual partners).

Table 2

Participant characteristics

ID	Age	Ethnicity	R/S Status	Longest R/S (years)	Sexual Orientation	Highest Education	Gross annual Income (\$)
Sam	57	Māori	Single	29	Homosexual	Graduate	58,000
Tom	27	NZ/Euro	De facto	0.25	Heterosexual	Degree	46,000
Bill	41	Pakeha	Separated	17	Bisexual	Masters	91,000
Matt	35	Pakeha	Single	1	Bisexual	Degree	80,000
Dan	38	NZ/Euro	Married	13	Bisexual	Honours	250,000
Jim	29	Māori /Pakeha	Married	7	Heterosexual	UE	40-60,000
Paul	49	European	De facto	19	Heterosexual	Honours	80,000
Pita	30	NZ/Euro	De facto	7	Heterosexual	Degree	70,000
Saul	30	European	De facto	4	Heterosexual	Bursary	60-75,000
Stu	52	European	Married	7	Heterosexual	Masters	80,000
Rick	39	NZ/Euro	Single	15	Heterosexual	Trade	100-500,000
John	36	NZ/Euro	De facto	5.5	Heterosexual	Post-grad	85,000

Note. R/S = Relationship.

The age range of participants was 27 - 57 years with most being of New Zealand European ethnicity and two identifying as Māori. The majority of participants were heterosexual men in a relationship, and the length of their longest relationship ranged from 3 months to 29 years. There were three bisexual men and one who identified as homosexual. Participants were generally highly educated but ranged from University Entrance (UE) or Trade qualified to Master's Degree and earning a greater than average income (\$46,000 - \$100-500,000; Statistics New Zealand, 2013).

Participant Attrition

Only one participant, John, dropped out from the study after completing the baseline phase without attending any treatment sessions. No reason could be obtained for discontinuing and unfortunately it was too late for another participant to take his place in the study. One other participant, Stu, did not complete data collection beyond baseline and did not provide a reason for this, although he completed all 12 sessions of therapy. Two participants, Paul and Saul, attended three treatment sessions before electing, in collaboration with their therapist, to stop because their therapy goals were met. Data for Paul and Saul has been included in Appendix J (for completeness). The remaining eight participants attended all 12 sessions of therapy, and several continued with self-funded booster sessions either during or after the follow-up phase was completed (Bill, Matt, Dan, and Pita). This will be described in more detail in the results section.

Measures

Several aspects that were pertinent to the study's hypotheses and research question were measured using a multi-modal range of measures to assess different constructs and gather multiple types of information. In terms of the research assessment process, data about participants' self-reported control over sex, associated distress, negative consequences of sex, intimacy, and attachment were independently gathered by the researcher over baseline, therapy, and follow-up phases. The researcher aimed to build a trusting and non-judgemental relationship with each participant to maximise the accuracy of collecting such private information, such as using matter of fact communication and providing a respectful tone in email contact.

Self-report has been found to have limitations that include social desirability, under-reporting or over-reporting symptoms, and shame and stigma (Womack, Hook, Ramos, Davis, &

Penberthy, 2013). Conversely, written self-report has the strengths of increasing a sense of comfort than that experienced in face-to-face reporting, which may increase disclosure (Womack et al., 2013). Written self-report has also been found to be superior to face-to-face questioning when reporting sexual behaviours that are sensitive (Fenton, Johnson, McManus, & Erens, 2001). These factors were kept in mind during data collection which involved participants providing written self-report measures by email. Participants were timely with providing data and appeared to disclose information willingly and with ease. Many also voiced a desire to be helpful to the study and provided extra contextual information that was useful and which will be discussed further in the results section.

Three types of data collection occurred. Firstly, there was a questionnaire comprising various self-report rating scales on sexual behaviour, negative consequences, fear of intimacy, and attachment that was completed by participants at the first baseline point, post-treatment, and at each follow-up phase (1, 2, and 3 months; see Appendix C). Secondly, participants completed the sexual behaviour section of this questionnaire on a weekly basis during the baseline and therapy phases of the study and then at each follow-up phase (1, 2, and 3 months). Thirdly, at post-treatment, the STNZ therapists completed a treatment adherence questionnaire for each participant they worked with (see Appendix D). All of these measures will be described shortly.

As noted, OCSB has been described as a “moving target” due to the lack of consensus on nomenclature and definition (Womack et al., 2013, p. 67). This has implications for how to measure OCSB. Decisions about the content of the participant questionnaire were based on Reid and Woolley’s (2006) definition of OSCB as reduced control, impairment, and distress pertaining to sexual thoughts, feelings, and behaviour. Furthermore, a comprehensive review of the literature by Hook, Hook, Davis, Worthington, and Penberthy (2010) informed the selection of the most appropriate psychometric measures. This review concluded that the integrated use of self-report rating scales, checklists, and clinician rating scales regarding the symptoms associated

with OCSB is the best method to measure this construct (Hook et al., 2010). According to Hook et al., given that no single feature or behaviour is able to indicate the presence or absence of OCSB, the use of multiple methods of capturing behaviour is best, such as combining validated self-report measures with behavioural reporting (Hook et al., 2010).

A more recent review of the 32 existing measures of OCSB reported that they vary greatly in their psychometric properties as most are relatively new and have not yet been evaluated in terms of reliability and validity (Womack et al., 2013). Several measures are highly robust, with good psychometric properties; however they capture different constructions of OCSB. For example, measures designed to capture 'hypersexuality', such as the Hypersexual Disorder Questionnaire (Reid et al., 2012), regardless of psychometric strength would have limited validity in measuring OCSB according to Reid and Woolley's (2006) definition as items capture the definition of hypersexuality, such as focusing on behaviour frequency and duration rather than control, distress, and impairment.

In addition to measuring symptoms associated with OCSB, the consequences of OCSB have also been deemed valuable to measure, because impairment to domains of functioning is one of the key elements of Reid and Woolley's definition (Muench et al. 2007; Reid & Woolley, 2006; Womack et al., 2013). As the definition used is important in determining appropriate measures, as well as consideration of psychometric strength, the current study followed these recommendations for measuring OCSB. Measures of intimacy and attachment were also utilised as they were relevant to the theoretical underpinnings of the therapy approach being evaluated and would allow some conclusions to be made about the effects of the treatment on these constructs that were a particular target of IFT. Further discussion of the selection of these measures and their characteristics and psychometric properties will follow.

Participant Questionnaire

The questionnaire asked for participant characteristics at baseline including age, ethnicity, sexual orientation, relationship status, length of longest relationship, highest education, and their annual income. This was completed at intake in relation to the instructions for each psychometric measure, while an adapted version asking for responses “over the past 30 days” was completed the week of each participant’s final therapy session, and again at one, two, and three month follow-up points (see Appendix C). This was altered to reflect the follow-up time being measured. All questionnaires were completed confidentially using participant ID numbers and were either emailed to the researcher or posted using a freepost address.

The questionnaire included a section involving self-reported behaviours. This comprised 11 items that asked participants to note the occurrence of several different sexual behaviours commonly reported by people with OCSB (Weiss & Samenow, 2010). Two of these questions asked about the incidence of alcohol and drug use in the last week as the literature reports that OCSB often co-occurs with substance use problems (Black et al., 1997; Guigliano, 2006). Participants were asked to signal the frequency of these behaviours or hours of engagement in them if they were endorsed. These 11 items were selected in collaboration with Sex Therapy New Zealand therapists who were asked to recommend behaviours they saw as important to ask about based on their clinical experience. They agreed both duration and frequency would be useful information as well as covering a variety of different sexual behaviours. One other suggestion from this process was to include an option for “other” where participants could name additional sexual behaviours that had not been directly asked about that were relevant to the study.

Self-reported behaviour

Self-reported behaviour (see Appendix C, page 1) measured whether participants were engaging in certain sexual behaviours in the past seven days and, if so, how often or for how

many hours. From the list of 11 items, participants indicated whether “the following experiences happened for you in the past seven days”. The type of response varied depending on the question. Some items asked for behaviour frequency (i.e., had sex with partner, masturbated, sex in public, paid for sex, had satisfying sex) and others for duration in hours (i.e., viewed pornography, fantasised about sex, used the internet for sexual purposes). An additional “other” item was provided for participants to add sexual behaviours that were not included on the form and rate how often or for how many hours it occurred. Only one participant provided “other” behaviours (Saul) which were receiving Thai massage, participating in group sex, and watching pornography in a sex shop.

Distress

As OCSB is associated with subjective distress, a 12th item on the early part of the questionnaire was a subjective units of distress scale (Wolpe, 1969). Participants were asked to rate their level of distress about their sexual behaviour on average over the past seven days from 0 (“not at all distressed”) to 10 (“most distressed you’ve ever felt”; see top of page 2 in Appendix C). Scoring of the weekly behaviour reporting is discussed in depth in the data analysis section.

The Compulsive Sexual Behaviour Inventory (CSBI) – Control Scale

The CSBI measures compulsive sexual behaviour and other aspects of sexual behaviour including sexual abuse and violence (Coleman, Miner, Ohlerking, & Raymond, 2001). The CSBI was developed as a clinical and research tool with two scales - Control and Violence. The Control Scale (see Appendix C, page 2; Coleman et al., 2001) was selected for the present study because it is a brief measure involving 13 items focusing on control of sexual behaviour (Miner, Coleman, Center, Ross, & Rosser, 2007). Measuring control of sexual behaviour is important in research as control over sexual behaviour is considered to be the “core” of the disorder (Hook et al., 2010, p.238). The Violence Scale focuses on sexual behaviour that includes violence and abuse such as that in sexual offending and was not used in the present study as it was outside

the scope of the research and is not considered to be a core feature of non-offending OCSB (Hook et al., 2010).

Participants are asked to indicate how each item “most accurately describes your response” with no specific time period mentioned on a 5-point Likert scale from 1 (“very frequently”) to 5 (“never”). Example items include how often you have “been unable to control your sexual feelings”, “concealed or hidden your sexual behaviour”, and “had sex and masturbated more than you wanted to.” A total score is summed from the item ratings. Total scores range from 13-65, with lower scores relating to less control over sexual behaviour and higher scores to greater control. There is no research-based cut-off score for the Control scale at present, however, one study used the full CSBI to discriminate compulsive sexual behaviour in a group of men and women ($N = 482$; Storholm, Fisher, Napper, Reynolds, & Halkitis, 2011). The full CSBI range is 22-110 and a reverse scale was applied in this study so that higher scores indicated higher compulsive sexual behaviour (Storholm et al., 2011). Findings were that CSBI total scores of 40 or above accurately discriminated those with compulsive sexual behaviour at least 70% of the time, suggesting a moderately high sensitivity when this cut-off was used (Storholm et al., 2011)

The Control Scale has been found to have good internal consistency, with alpha coefficients ranging between .67 and .96 (Hook et al., 2010; Miner et al., 2007; Storholm et al., 2011). Good construct validity was also found, with lower scores correlating with greater numbers of sexual partners and using sex to moderate negative emotions (Coleman et al., 2001; Miner et al., 2007). The full CSBI has also been found to have good test-retest reliability ($r = .86$) over a 7-10 day period in a sample of Latino gay or bisexual men (Storholm et al., 2011). The CSBI has been studied in psychotherapy, community, and student populations including both heterosexual, gay, and bisexual men, and heterosexual women (Hook et al., 2010).

The Compulsive Sexual Behaviour Consequences Scale (CSBCS)

The CSBCS (see Appendix C, page 3; Muench et al., 2007) is a 22-item measure that captures negative consequences of sexual behaviour. It utilises a 5-point rating scale ranging from 0 (“never”) to 4 (“always”) to assess “consequences first over your entire lifetime and then over the last 90 days” in order to capture life time experience as well as current consequences. Items include questions such as “missed days of work or school,” “had unprotected sex,” and “intimate relations were harmed”. Total scores are summed for each time period (lifetime and past 90 days) and range from 0 - 84 for each, with higher scores indicating more different types of and/or more frequent negative consequences. An additional two items were added which were “How often has your sexual behaviour harmed your ability to stay in a relationship” and “How often has your sexual behaviour harmed your ability to be intimate non-sexually” on advice from the principal author (personal communication Fred Muench, 20th February, 2012). These two items were not used in summary scores for the CSBCS as these have not been used in the one existing study on the CSBCS and so comparisons could not be made.

The CSBCS is a relatively new measure and was the only one available at time of writing to assess consequences of sexual behaviour (Hook et al., 2010; Womack et al., 2013). The CSBCS has only been researched in one sample of homosexual and bisexual male community members for citalopram efficacy for sex addiction in which there was strong internal reliability (.86 - .89), and good to excellent convergent validity with the Compulsive Sexual Behaviour Inventory (.55; Miner et al., 2007) and the Yale Brown Obsessive Compulsive Scale (.78; Goodman, Price, & Rasmussen 1998; Muench et al., 2007). The CSBCS was also found to be sensitive to change (Muench et al., 2007). While these are promising psychometric results, further research is required to provide more conclusive evidence of the psychometric properties of the CSBCS.

Relationship Scale Questionnaire (RSQ)

The RSQ (Griffin & Bartholomew, 1994; see Appendix C, page 5) is a 30-item self-report measure of adult romantic attachment which can be scored in several different ways depending on the preference of the researcher as it includes three different attachment measures within it, not all of which were used in the current study, which will be discussed shortly (Griffin & Bartholomew, 1994; Ravitz et al., 2010). Respondents rate the extent each statement best “describes your relationship” on a five-point scale from 1 (“not at all like me”) to 5 (“very much like me”) when considering their current or most recent intimate relationship.

In the current study, the RSQ was used to capture four attachment subscales according to a two-dimensional model of attachment anxiety and avoidance, which uses 18 of the 30 items (see Figure 1). The four RSQ subscales are secure (e.g., “I am comfortable depending on others”), fearful (e.g., “I worry that I will be hurt if I allow myself to become too close to others”), dismissing (e.g., “I prefer not to depend on others”), and preoccupied (e.g., “I find that others are reluctant to get as close as I would like”) attachment. Each subscale comprised either four or five items that corresponded to each attachment category. The secure attachment items were 3, 9 (reverse-scored), 10, 15, and 28 (reversed); fearful attachment items were 1, 5, 12, and 24; preoccupied attachment items were 6 (reversed), 8, 16, and 25; and dismissing attachment items were 2, 6, 19, 22, and 26 (Griffin & Bartholomew, 1994). Scores were represented by the mean of the items in each subscale (i.e., possible range of 1-5). The remaining items in the RSQ correspond to the other measures that are embedded within it which were deemed to be less psychometrically sound and were not used in the current study (Griffin & Bartholomew, 1994; Kurdek, 2002; Ravitz, et al., 2010).

According to the two-dimensional model of attachment anxiety and avoidance, the category of secure attachment is represented by low anxiety and low avoidance of closeness, preoccupied attachment is represented by high anxiety and low avoidance of closeness, dismissing

attachment involves low anxiety and high avoidance of closeness, and fearful attachment involves high anxiety and high avoidance of closeness (Brennan, Clark, & Shaver, 1998, see Figure 1).

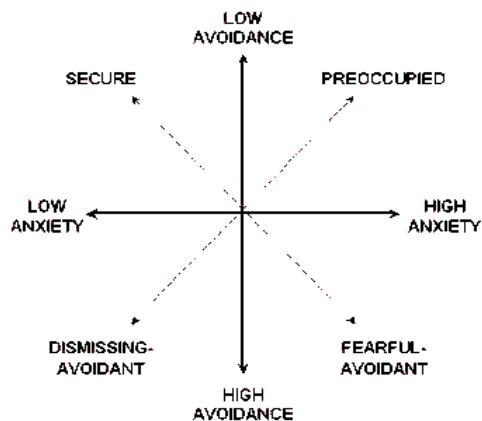


Figure 1. Two-category model of adult attachment (Brennan et al., 1998).

The use of this measure and model in the current study allowed the use of behavioural descriptors to be applied to outcomes for participants before and after therapy, as well as enabled comparisons to previous OCSB research that had examined adult attachment (e.g., Bogaert & Sadava, 2002; Gentzler & Kerns, 2004). Thus, RSQ scores were used as a fluid measure of current experiences of anxiety or avoidance of closeness, as opposed to using scores to categorise individuals into a particular attachment style (Griffin & Bartholomew, 1994). Categorising individuals into an attachment style using brief self-report measures has not been found to be a valid or reliable method of establishing a person's attachment style because attachment behaviour by definition occurs in relation to perceived threat and a search for security (Bowlby 1973; Kurdek, 2002).

This is the main criticism of using self-report approaches like the RSQ to measure attachment, that they cannot capture attachment styles being activated, which requires threat, danger, or perceived abandonment. Self-report measures are passive, and do not tap into unconscious attitudes and memories, as defenses may distort responses during times of attachment inactivity where there is little threat (Ravitz et al., 2010). While structured interview methods such as the Adult Attachment Interview (Hesse, 1999) could have offered more thorough baseline assessment that elicited attachment style activation, it was impractical to use this as a repeated measure as it requires specialised training to administer and the interview takes one hour which was not possible with the resources available for the present study.

A further critique of using self-report methods to measure attachment includes the fact that the different relational foci captured depend on the particular dyad or relationship partner being considered, and research has found that there can be different attachment responses to different attachment figures (e.g., mother versus father; Ravitz et al., 2010). The RSQ attempts to manage this limitation by asking all participants to respond according to their current or most recent intimate relationship for consistency, although this could be affected if participants changed partners during the course of the study but was still used as it was considered the best brief measure of attachment for the study's aim for the reasons already identified.

Alpha coefficients for the RSQ when scored as in the current study have been found to be moderately high, ranging from .75 to .79 (Scharfe & Bartholomew, 1994). Convergent validity has also been demonstrated across the Relationship Questionnaire (Bartholomew & Horowitz, 1991), the RSQ, and self and interviewer ratings (Griffin & Bartholomew, 1994). Information on test-retest reliability is not available in the literature.

The Fear of Intimacy Scale (FIS)

Although the FIS (see Appendix C, page 6; Descuter & Thelen, 1991) is described by its authors as measuring fear of intimacy, this measure has been found to evaluate three areas: 1)

the content and expression of personal information, 2) emotional valence towards the articulation of personal information, and 3) vulnerability (Hook, Gerstein, Detterich, & Gridley, 2003). The FIS is a 35-item measure that asks participants to respond to the statements as they would “if you were in a close dating relationship”. They are asked to rate how characteristic each statement is of them on a scale from 1 (“not at all”) to 5 (“extremely like me”). Item 25, “I would be comfortable telling my partner what my needs are”, was accidentally omitted from the present survey meaning that overall intimacy scores of the current sample were likely to be slightly underinflated by up to 5 points per participant. The total score of remaining items was summed with higher scores indicating greater fear of intimacy, with a possible range between 35 and 175 (Descuter & Thelen, 1991). While there are no particular cut-offs or clinical ranges for the FIS, a mean score in a previous study ($N = 171$) of 83 men and 88 women ranging in age from 35-55 was 79.58 ($SD = 21.57$), and no gender differences were found (Doi & Thelen, 1993).

An evaluation of the psychometric properties of the FIS involving 231 psychology students found internal consistency to be excellent (.92 - .93), and test-retest reliability was also high (.89) after a one-month time period (Descuter & Thelen, 1991; Doi & Thelen, 1993). The FIS was also evaluated with 30 clients currently in therapy and the correlation between FIS scores and therapist ratings of clients’ fear of intimacy was $r = .37$, which is a low correlation suggesting a discrepancy between how therapists and clients view their level of fear of intimacy (Descuter & Thelen, 1991). Discriminant validity was demonstrated by negative correlations seen for ‘confidence in others’ dependability’ ($r = -.40$), ‘comfort with closeness’ ($r = -.59$), and ‘fear of abandonment’ ($r = -.30$), using validated measures of these constructs (Doi & Thelen, 1993).

Treatment Adherence Measure

To assess the degree to which therapists rated their adherence to IFT in their work with each participant, a 45-item therapy adherence measure was developed by the researcher and used for the present study (see Appendix D). This measure was designed to capture the

therapists' perceived adherence to the therapy approach and was administered to each therapist for each of their participants on completion of the final therapy session. The measure was posted with a free-post return envelope to therapists the week that therapy finished with each participant, and asked them to indicate whether they had used each IFT component with that participant. All therapists completed this within one to two weeks for each participant who completed therapy. Of the components identified that they had used, therapists rated the degree to which they perceived themselves to have covered that component on a three-point scale (0 = 'not at all', 1 = 'somewhat', or 2 = 'completely'). The measure was scored by taking the total number of items the therapist indicated they had used for a participant (e.g., "provided psychoeducation about OCSB", "helped to regulate and modulate stressful emotional states", "addressed relational trauma", "developed emotional expression", and "worked on non-sexual touch") and calculating a total score which was then converted into a percentage to represent the degree of self-rated adherence to the IFT principles for each participant, which are presented in the results chapter.

A percentage was used because the variety in OCSB presentations as well as the flexible nature of IFT meant that not all elements of the therapy approach were appropriate for each participant. This gave the advantage of being able to discount the various components of IFT that the therapist deemed were not relevant to their client's needs and thus had not used, while focusing on the components that were considered the focus of the work, and how much these were worked on according to the IFT Principles.

Procedure

Phase One: Recruitment and baseline assessment

Recruitment

Given the shame and stigma associated with OCSB, it was important that the approach to recruiting and contacting participants was confidential and handled with sensitivity. It was also important to cast a wide net in efforts to recruit participants, so that sufficient participants could be

taken into the study. A press release was used to recruit participants due to the ability of media to reach a wide audience including online sites, increasing anonymity. The press release went out in early March 2012 and notified New Zealand news sources about an invitation for people residing in the Palmerston North and Auckland regions to take part in a treatment outcome study on OCSB (see Appendix E). Eligible participants were men over the age of 18 who self-identified as “experiencing a wide range of sexual behaviours that cause distress to you and/or your partner, you may have tried to stop or cut back on but have been unable to, and this is negatively impacting on your life”. Men meeting these criteria were invited to email the researcher to find out more about the study.

As a result of the press release, the researcher was interviewed by national newspaper journalists at The Dominion Post and The Herald on Sunday, and local paper The Manawatu Standard (see Appendix F). Stories were run in these papers and on several online news sites notifying prospective participants of the study and who to contact to request an Information Sheet (see Appendix G). In addition, the Auckland and Wellington branches of Sex and Love Addicts Anonymous were also notified of the study and sent information sheets to disseminate to their membership. These branches advertised the research specifically to groups where people were already seeking a form of support for their OCSB.

Prospective participants who emailed the researcher and indicated they met inclusion criteria were emailed an Information Sheet and had the opportunity to ask further questions of the researcher via email before deciding if they wanted to be involved. Those who chose to participate provided the researcher with their contact details (address and contact number), were sent the Consent Form (see Appendix H) and freepost envelope, and subsequently signed this and posted it to the researcher. All participants were notified of their right to withdraw from the study at any time, and were informed that all data collected up until that point could be used anonymously in the study, and that they could choose not to respond to any questionnaire items

if they wished. Further therapy would continue to be available at the standard STNZ fee (\$185 per session) if participants wished to continue therapy beyond the 12 subsidised sessions (\$79 per session). Figure 2 depicts these various stages of participant recruitment.

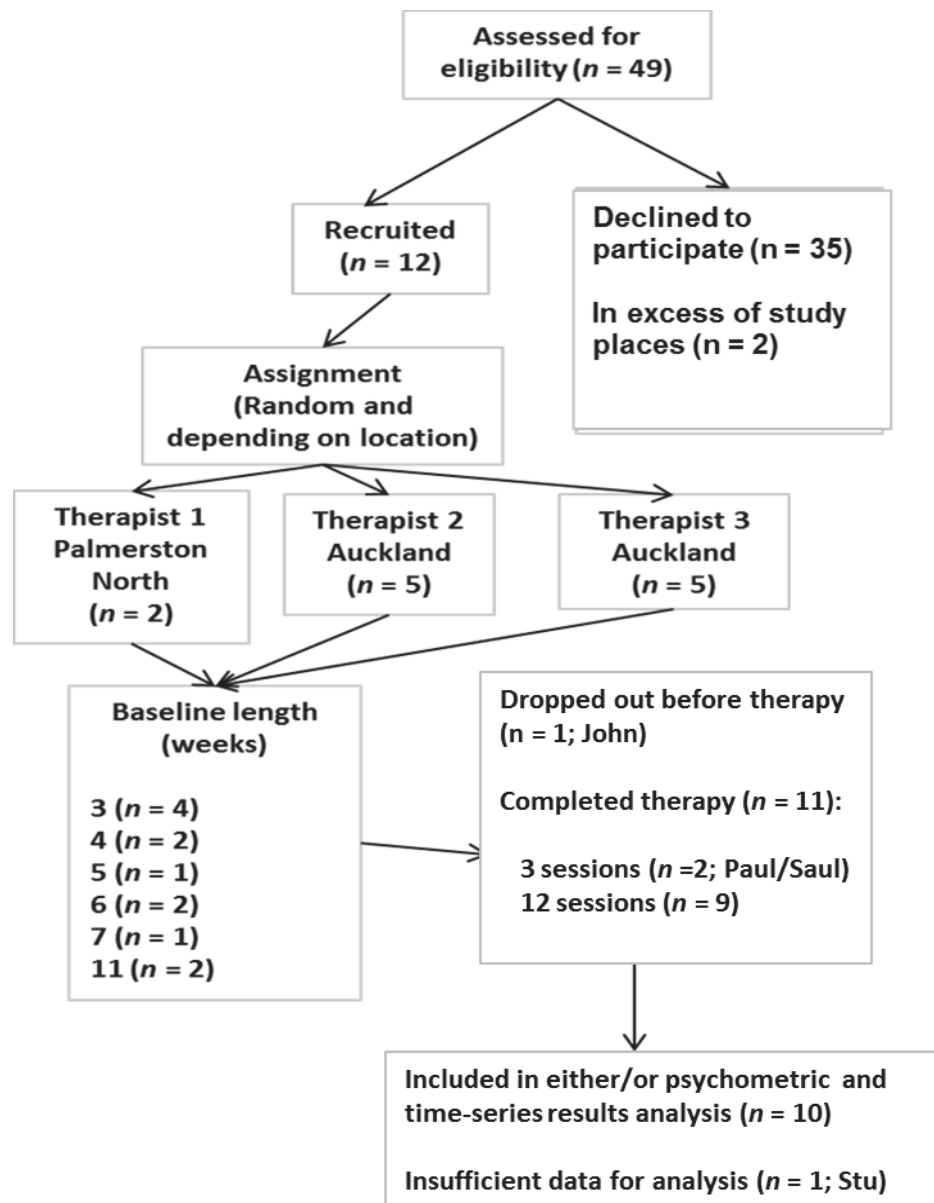


Figure 2. Flow of participants through each stage of recruitment and participation.

The data collection phases are also depicted in Figure 3. There was baseline assessment, ongoing assessment of self-reported behaviour over the treatment phase, post-therapy assessment of participants' self-report and questionnaire as well as the therapists self-reported

adherence to the therapy approach, and follow-up assessment of participants self-reported behaviour and questionnaire scores which was completed monthly for three months.

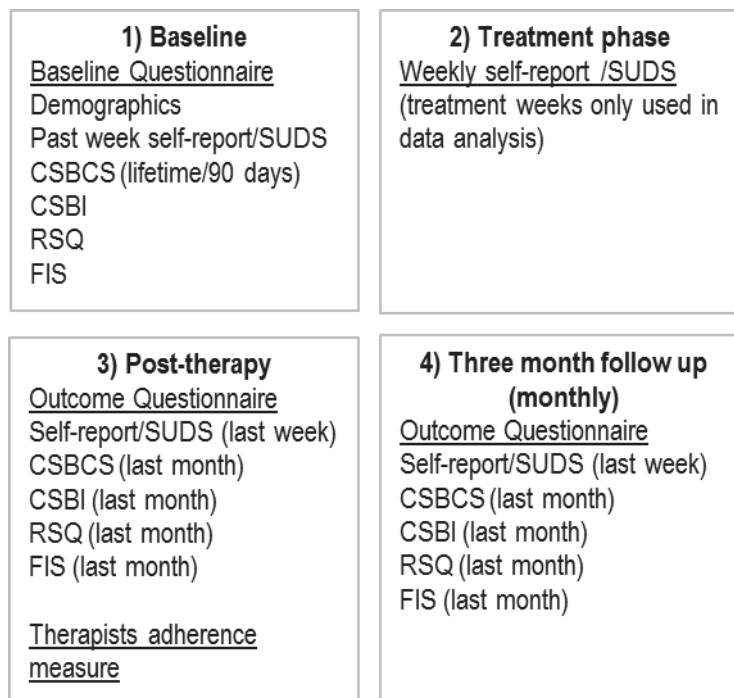


Figure 3. Data collection across study phases.

Baseline assessment

When participants returned their consent form they were assigned to one of three therapists depending on location and therapist availability (e.g., those living in Palmerston North saw the Palmerston North therapist). They then were sent and completed the baseline questionnaire and were randomly assigned to one of three baseline lengths (3, 5, and 7 weeks) by pulling their ID number out of a box at random. Some flexibility to the random assignment was required because of participants' needs and STNZ therapist availability (e.g., if the participant needed to be seen promptly; if the therapist did not have an appointment time within the allocated baseline period). Exceptions to random assignment included one participant (Tom) being given the shortest baseline length (3 weeks) due to the need to be assessed earlier as he was concerned that his relationship would be affected if his partner discovered his level of pornography viewing. Two

other participant's baselines were affected by therapist availability and resulted in two 4-week (Matt and Dan) and two 6-week baselines (Paul and Pita). In two other cases, the baseline ended up being 11 weeks. One was John, who dropped out of the study without keeping an appointment, and the other Saul, whose appointment was affected by work clashing with therapist availability and led to the first session being deferred.

Each participant's contact details were provided to their therapist via a phone call from the researcher. Allocation of therapist was dependent on the geographical suitability to attend sessions (i.e., living in Auckland or Palmerston North) and, where there were two therapists available in one region, allocation depended on the availability of therapists to complete an initial appointment within the required baseline timeframe at time of referral. Table 3 displays the distribution of participants across therapists and shows that Therapist 1 saw only two participants while Therapist 2 and 3 each saw five, which was because of the amount of referrals from participants in each location.

Table 3

Allocation of participants to therapists

Therapist 1	Therapist 2	Therapist 3
Sam	Tom	Dan
Paul	Bill	Saul
	Matt	John
	Jim	Stu
	Pita	Rick

Note. Bolded names indicate participants who provided sufficient data for full data analysis; John dropped out, while Stu did not provide data. Sam and Paul had sufficient data for time-series analysis but not for psychometric results.

Each therapist made immediate direct phone contact with their participants to screen more fully for the study's exclusion criteria and there were no specific guidelines on how this should be done as all therapists were senior clinicians. All referred participants met the eligibility criteria and an initial assessment appointment was then booked for the week in which their baseline phase

ended. The twelve participants were each allocated an identification number to preserve their privacy throughout the study.

Baseline assessment involved two forms of measurement; the intake questionnaire that was completed once on the first week of baseline, and the behavioural reporting (sexual behaviour, alcohol and substance use, and distress rating) that was completed each week of the baseline length. The researcher emailed each participant every week during their baseline phase to alert them to complete this task. Participants emailed this information to the researcher at their earliest convenience which was usually within the week they had been emailed, and in general were extremely efficient at this task and helpful in that they often provided additional details to provide a context for the behaviour. For example, one participant noted he had been sick all week which he said accounted for his lack of sexual behaviour or associated distress over one week of baseline. At times, participants sent data to the researcher after the week it was recorded and when this occurred data may have been affected by retrospective reporting. This occurrence was rare and when it occurred was due to work-related overseas travel affecting computer access.

Phase Two: Assessment and Treatment

Following from Salisbury's (2008) publication of the 'developing practice model' used by STNZ therapists, the therapeutic approach, IFT, was further described in detail for the purposes of the present study. The resulting document was primarily authored by the researcher in collaboration with STNZ and the project supervisors and describes the treatment principles underlying IFT (see Appendix B). The key contents of the document will be described here, beginning with assessment domains in relation to OCSB.

Assessment

On completion of the baseline phase, which ended according to the assigned length of each baseline, participants had an initial assessment with the therapist they were allocated to. As

has already been discussed, in single-case research design, the onset of treatment is withheld pending a stable baseline as the design requires stability in order to determine whether or not changes can be attributed to the intervention (Hersen & Barlow, 1984; Kratochwill et al., 2010). There were problems in achieving stable baselines in the present study, due to the wide variety of behaviours being measured, as well as the fact that treatment onset **depended on therapists'** schedules, ethical obligations to provide treatment for individuals in distress (and most participants reported fairly high levels of distress over baseline), and time limits for the research to be completed within. It was decided that treatment would not be withheld until all baseline data was stable and that data analysis would focus on those for which stable baselines were obtained.

STNZ therapists were the therapy providers because IFT is a specialised therapy approach that requires advanced training in sex therapy in addition to clinical training and either registration as a psychologist or therapist from other disciplines (e.g., counselling or psychotherapy). Non-STNZ trained clinicians such as the researcher would not have been appropriate to deliver the therapy.

Assessment involved a clinical interview and was assessment as per the IFT Principles but this information was not used for the purposes of the study so as to preserve confidentiality and separate the process of research from therapy as much as possible. In keeping with the spirit of the principles of IFT (which will be explained shortly), assessment was flexible and tailored to the individual. Therapists may or may not have used their own psychometric measures to enhance their assessment process. Each participant completed a comprehensive assessment which was a preamble to IFT. A non-exhaustive list of the domains of IFT assessment are as follows.

1. Define what problem behaviour is occurring
2. Frequency (when increased/decreased)
3. Location/rituals

4. Triggering circumstances
5. Implications (relationship, health, risks)
6. Functions of behaviour (self-soothing, impulse control, avoidance of uncomfortable feeling states)
7. Co morbidity screen (anxiety, depression, substance abuse, impulse control behaviour, etc.).
8. General health and wellbeing screen and skills/strengths (biopsychosocial approach)
9. Relationship dynamics cycle and impact of compulsive sex on relationship
10. Check diminished or absent sexual desire in client or partner and other sexual symptoms
11. Sexual history for client (include sexual abuse history screen)
12. Attachment history and relationship history
13. Capacity for intimacy (observed)
14. Client's treatment goals
15. Risk to self or other
16. Illegal behaviour

Item 14, establishing treatment goals, is an individualised process with some being presenting goals, some arising from assessment and others arising within the treatment process.

A client's goals may include but not be limited to:

- Stopping infidelity within a monogamous relationship or negotiating some form of polyamorous arrangement.
- Ceasing to use pornography/ceasing to use it alone/reducing frequency of porn use.
- Ceasing masturbation for a focus on partnered sex/reducing masturbation frequency, only masturbating while with partner, ceasing to masturbate to pornography, learning to masturbate in a loving way.
- No longer using sex workers, phone sex, internet sex-related chat rooms etc.
- Reducing distress about any of the current sexual practices.
- Stopping dishonesty regarding sexual behaviour to a partner.
- Developing an understanding of what has motivated behaviour and learning to experience control over one's behaviour.
- Identifying dysfunctional thinking and forming new constructive beliefs and responses to self and others.
- Extinguishing a problematic sexual arousal object and replacing it with one the client finds constructive. This raises the difficult question of what is 'normal' which may need to be explored as goals are formulated. An example of a goal in this category could be helping a male individual who has been shaming himself by stealing women's underwear to dress up in and masturbate, either learn to get aroused to his own (non-problematic) fantasies or to his bodily sensations or to buy his own underwear supply. Another example is someone who has conditioned themselves to get aroused and masturbate whenever they are home alone or bored and then finds they have no sexual energy for

partner sex, may want to learn to create a new response to aloneness or boredom.

- Developing the capacity to be intimate and comfortable with sexual and non-sexual closeness.
- Personal growth, perhaps understanding one's own attachment experiences and earning a secure attachment (re-parenting oneself).
- Understanding one's own and others' emotional responsiveness.
- Learning to empathise.

Following assessment, each therapist completed a psychological report as usual, which was also not part of the data collected for the study, to guide their treatment and the therapy then began.

Treatment

IFT is an integrated biopsychosocial treatment approach. It draws on existing treatment models for OCSB in that it incorporates motivational, cognitive, social, behavioural, and pharmacological interventions as appropriate to the individual, however the approach differs from existing treatments because the core focus is on developing the capacity for intimacy (Salisbury, 2008). IFT is designed to be delivered flexibly due to the diverse presentations of OCSB and is able to be tailored to the needs of the client.

Developing the capacity for intimacy, in its broadest sense, is threaded through each aspect of treatment and involves developing intimacy with self (i.e., self-knowledge, emotional sophistication) as well as in relationships. These skills are learnt through the contingent responsiveness of the therapeutic relationship. The therapist models these skills to enable the client to develop (non-sexual) intimacy with the therapist, then self, and then helps the client apply these skills to their out-of-therapy relationships. Development of these skills is typically in

this order, but for some is not sequential. The development of these skills is guided by the therapist in the safety of an attuned and empathic therapeutic relationship.

The types of intimacy skills that the therapist uses includes developing self-compassion, experiencing, identifying and expressing feelings, learning how to self-soothe, differentiation and individuation, developing and maintaining boundaries, identifying and expressing needs, assertiveness, self-reflection/awareness, cooperation and consideration, and letting go (of control, and making farewells). Additional relationship skills that are taught and then applied out of therapy involve initiating (contact, conversation, and sex), loving, affection (non-sexual touching), and lovemaking.

There are particular phases in IFT. The client's OCSB is first contained, which might involve practical steps such as moving a computer to a shared living area, removing subscriptions to porn, and installing porn site blocks. In addition, the therapist will identify and work on clarifying and resolving any developmental issues and their consequences. This may involve teaching emotional regulation skills, addressing co-morbid depression, anxiety, substance use, guilt and shame, and improving social adjustment. Cognitive and behavioural interventions are used as the therapist works on identifying and modifying beliefs, alerts the client to high-risk situations, identifies specific precursors to relapse, and works with the client to rehearse new behaviours. Adjunctive drug treatment may occasionally be used via the client's general practitioner, if other treatments have failed, or can be used in conjunction with other treatments. For example, sexual arousal and disinhibited sexual behaviours may be mitigated by drugs that enhance serotonin (i.e., SSRIs) and several participants identified taking SSRI's at follow-up. Anti-androgens (drugs that reduce male sex hormones such as testosterone) can help reduce paraphilic (socially deviant) and non-paraphilic OCSB, although this type of medication was not used by any participants in the current study. This type of pharmacotherapy is a separate issue from treating co-existing conditions pharmacologically, such as depression, which may also be required in IFT.

IFT has been developed over ten years of specialised training and has been formalised into STNZ Treatment Principles, given its relevance to the research project. This training background, in combination with these Principles, forms the basis for the treatment approach evaluated in this thesis.

Therapists

The therapists comprised three female Clinical Psychologists who are STNZ therapists and were known to the researcher in a professional capacity since 2003. One was based in Palmerston North and the other two therapists were based in Auckland. All had completed clinical psychology training, advanced sex therapy training, and had worked with STNZ clients including those with OCSB for a minimum of eight years. All data provided by participants was kept blind from STNZ and the therapists. A letter of explanation of the study was provided to the therapists for them to refer to in a letter format, and phone contact with the researcher was available to discuss questions as they arose (see Appendix I). This letter was written prior to funding being sourced and so refers to the non-subsidised cost of therapy (\$185) rather than the subsidised rate that was eventually available (\$79).

Therapists were able to accept referrals at their discretion and if they felt unable to work with a particular client to decline the referral, however this did not occur. Therapists were aware of the study's aim and hypotheses as they were, necessarily, involved in the research planning stages (for the IFT Principles development and Treatment Adherence Survey), especially one therapist who was a co-supervisor of the researcher. They were all kept blind from data collection and each therapist kept a record of their session dates.

Setting

The treatment setting was the usual therapy rooms of each therapist. Weekly behaviour reporting was completed by participants on their personal computer and emailed to the

researcher as a Word file attachment. The questionnaire was posted and completed manually by participants before sending back via freepost to the researcher.

Treatment

Treatment comprised 12 one-hour sessions of IFT as per the STNZ Treatment Principles which were formalised primarily by the researcher in 2012 for the purposes of this study (see Appendix B). IFT is designed to be delivered flexibly depending on the needs of the client, and so the total amount of sessions per participant could vary. Participants attended a minimum of 3 ($n = 2$) and maximum of 12 sessions ($n = 9$), and the frequency of sessions ranged from weekly, fortnightly, or less frequently depending on work or travel commitments.

A funding grant from the Oakley Mental Health Foundation was secured as well as funding from the Massey University Post-Graduate Research Fund, which together reduced the session cost from \$185 to \$79 (including GST) for each participant. Participants were permitted to continue in self-funded therapy (at full cost) following the 12th session as it would be unethical to not offer follow-up therapy for those who needed to continue. This will be discussed in the results chapter as four participants took this option (Bill, Matt, Dan, and Pita) which has implications, for the findings of the current study.

Supervision

STNZ therapists received professional supervision from their regular supervisors. Cultural supervision was accessible as per usual STNZ practice for participants of Māori ethnicity. Information on supervision was not recorded for the study and so it is not known if cultural supervision was sought for the two clients who identified as Māori.

Treatment Integrity

The development of the IFT treatment principles was designed to increase the internal validity of the study as well as treatment integrity by enhancing adherence to treatment components. As the study was an evaluation of the effectiveness of IFT, it was important to

consider the integrity of the treatment under investigation, or the extent to which the treatment was applied as it was designed to be (Perepletichikova & Kazdin, 2005). Treatment integrity includes treatment adherence, therapist competence, and treatment differentiation (Perepletichikova, 2011). Methods of assessment range from one to five levels of increasing adequacy depending on the type of research being conducted, with research in clinical settings requiring less rigorous evaluation of treatment integrity than empirical efficacy trials which require precision (Perepletichikova & Kazdin, 2005; Perepletichikova, 2011). The five levels of treatment integrity build upon each other and are depicted in Figure 4.

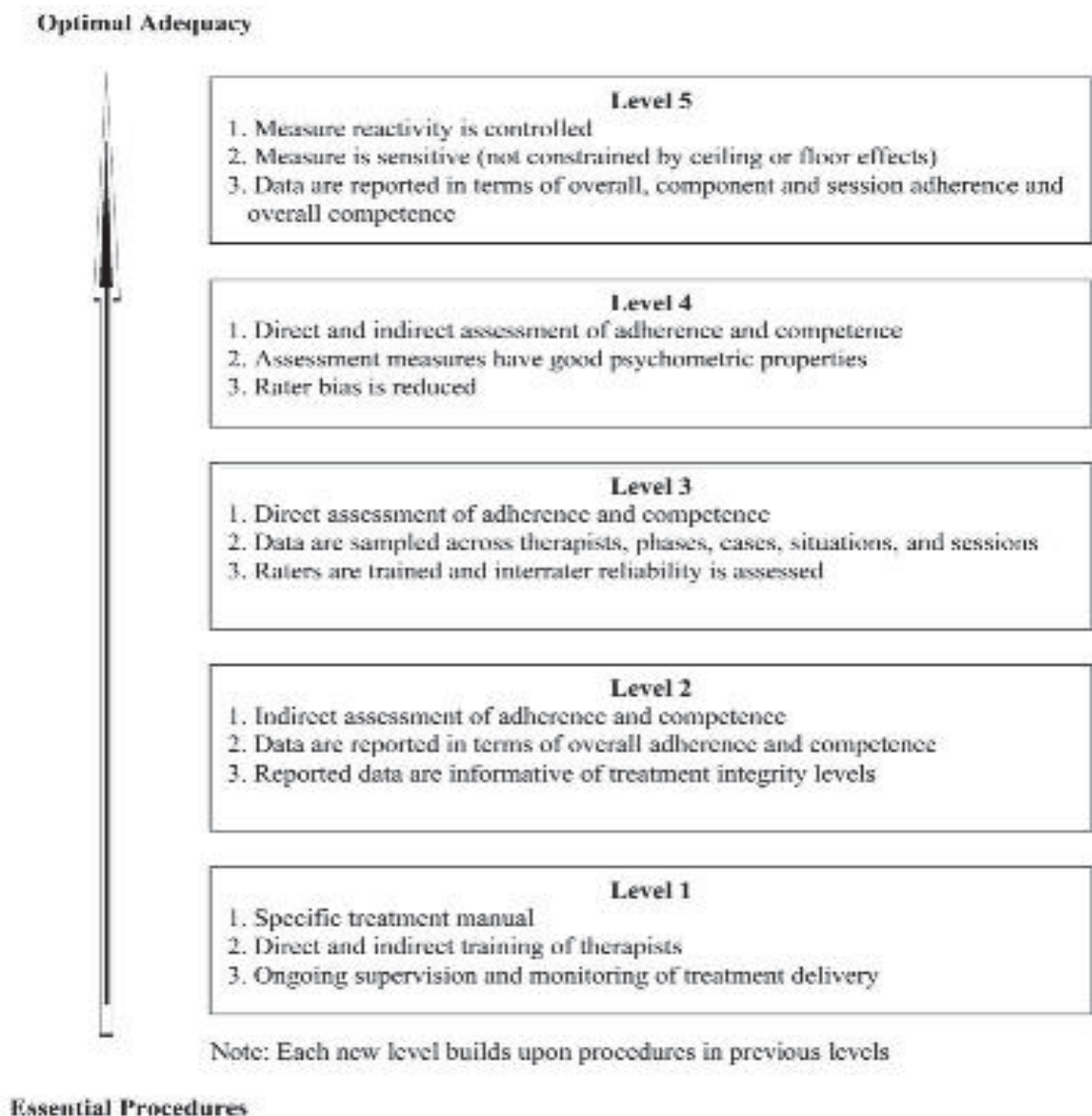


Figure 4. A continuum of procedures in addressing treatment integrity. Adapted from “On the topic of treatment integrity,” by F. Perepletichikova, 2011, *Clinical Psychology: Science and Practice*, 18(2), p. 148-153. Copyright 2011 by the American Psychological Association.

As exploratory research, the current study was concerned with addressing treatment adherence, rather than competence or differentiation which ask how well therapists or treatments work in relation to other therapists or treatments, respectively (Perepletichikova & Kazdin, 2005). According to Perepletichikova (2011), level 2 adequacies are sufficient for examining preliminary effectiveness of a treatment approach and this was followed in the current study (Gresham,

2009). Criteria for level 2 adequacy is that the treatment providers are all trained in the approach, have a set of treatment principles to follow, have appropriate supervision, and treatment delivery is monitored indirectly. Given the multi-modal and flexible nature of the treatment, determining overall integrity of the treatment delivery was appropriate rather than session-by-session integrity (Perepletichikova, 2011). In the current study, this involved developing a survey for the treatment providers to complete at the end of therapy to rate their perceived adherence to the treatment protocol and identify the various components of IFT that were included in therapy for each participant.

The treatment adherence survey as previously discussed (see Appendix D) was developed by the researcher in collaboration with the full team of STNZ therapists, and included input from an independent supervisory panel from Massey University. Consideration was given to the possible confounding effects of the treatment providers providing input to the treatment adherence survey, as the therapy providers knew in advance the criteria to show they had adhered to the therapy. However, the nature of the novel therapy under evaluation meant that this specialised group of therapists were the most appropriate to consult with, as non-STNZ therapists lacked the specialised understanding of both OCSB and IFT. This limitation will be considered in subsequent results and discussion.

Video or audio recording to increase treatment adherence is a more valid and robust option but utilising an expert rater was problematic as this would have needed to be the developer of the therapy approach, who was already involved in the study as a therapist. To train non-expert raters in evaluating the adherence to IFT would have required significant financial and time resources, and the intimate nature of the therapy under investigation may have been affected by the presence of an audio or visual recorder. For these reasons, audio or video recording were not included which meant that independent rating did not occur. It would be optimal for further

research beyond this preliminary study to consider ways in which such a step could be incorporated to examine both adherence as well as competence at delivering IFT.

Phase Three: Follow-up

The follow-up phase involved participants completing an adapted version of the baseline questionnaire once a month for three months. This questionnaire was adapted to reduce unnecessary repetition of information such as demographic information and the lifetime version of the CSBCS (negative consequences of OCSB measure). The wording of the instructions was adapted to make sense for the timeframe that data was being collected and read “over the past 30 days” instead of “the past 90 days”, which is what the instructions were at baseline and post-therapy. The questionnaire was posted with a pre-paid return envelope to each participant. Participants were informed that they would receive a summary of findings on completion of the thesis. Of the eleven participants who engaged in the treatment phase, only seven completed follow-up data, and several of those who did not apologised for not sending outcome data and cited work or travel demands as interfering with their ability to do so.

Data analysis

There were four components to data analysis. Firstly, individual scores for the psychometric measures administered at baseline, post-therapy, and follow-up were examined, along with the sexual behaviour and distress ratings. Treatment outcomes were displayed using two methods; modified Brinley plots and time-series graphs as described below. Secondly, non-regression based statistics were used to assess the magnitude of changes over the study phases. Thirdly, therapist adherence to the IFT treatment principles was explored. The last aspect of data analysis was an overall and integrated consideration of the findings in terms of the research question and hypotheses, including unsolicited supplementary information provided by participants. Different methods of visual data display were used which will be described below.

Psychometrics

Psychometric data for the CSBI (Control scale), CSBCS, FIS, and RSQ at each phase in data collection (baseline, post-therapy, 1-, 2-, and 3-month follow-up) was entered into SPSS (The Statistical Package for the Social Sciences, Version 19, 2012). Total scores were calculated for the CSBCS and FIS, along with scale scores for the CSBI (Control) and RSQ (Secure, Fearful, Preoccupied, and Dismissing attachment). SPSS was used to create modified Brinley plots to present change over the various phases of the study (Rucklidge & Blampied, 2011).

Brinley plots are an additional way to display time-series data and were originally developed by Brinley (1965) to show results from experiments in cognitive psychology. They were developed to show group average data, and were thus modified by Blampied (2007) to display individual data, so each person's data per phase is represented as one dot in the scatterplot. Modified Brinley plots can detect systematic effects of interventions while preserving the identity of each participant, which is a useful feature that group averaging data does not provide. They are also efficient at displaying a large amount of data, as they can depict all phases of the study (Rucklidge & Blampied, 2011).

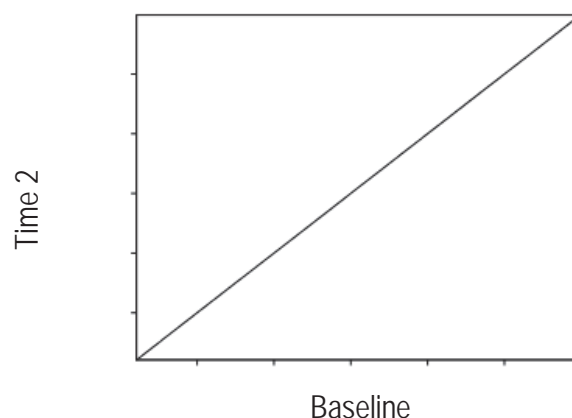


Figure 5. Example of a blank modified Brinley plot where scores above the line of no change (centre diagonal line) would represent improvement and scores below would indicate the opposite (Rucklidge & Blampied, 2002).

Modified Brinley plots are similar to scatterplots with the axes reversed (see Figure 4; Rucklidge & Blampied, 2011). They comprise two equally scaled axes where each point represents an individual's scores on a particular dependent variable at baseline (x-axis) and time 2 (y-axis). Scores that sit on the diagonal line at 45 degrees, termed the line of no change, shows that that particular x-value equals the y-value or in other words that there is no difference between baseline and post-treatment scores. Where improvement over time is measured by score increases, then data points above the line of no change represent improvement, and those below the line indicate deterioration. This interpretation is reversed where improvement is measured by reduced scores (e.g., CSBI, FIS, secure attachment subscale). Where individual plots are on top of one another or close together, they indicate participants had similar results; conversely, where individual plots are scattered apart, then participant results differed.

Data analysis compared results across baseline, treatment, and the follow-up phase so as to observe changes from pre-therapy compared to after therapy and over the follow-up, as well as looked at changes from post-therapy to the end of follow-up, to measure the longevity of therapy affects over time. Scores were not needed to be averaged as the measures were only administered once at each time point.

Self-Reported Behaviour and Distress

Weekly data on sexual behaviour (duration and frequency), alcohol and drug use, and subjective distress was collected and entered into Excel. Data that was recorded over the treatment phase, the length of which varied considerably across participants, was reduced to data collected on treatment weeks only, so as to best compare the data over the different phases of the study in stacked time-series line graphs. Stacked time-series graphs are simply time-series graphs that sit atop of each other so as to visually compare both individual data and data across participants simultaneously (Richards et al., 2014).

Time-series graphs are the most typical method of data presentation in single-case design research (Richards et al., 2014). Time-series graphs were generated for participants who had completed data beyond the baseline phase. This meant that data for two participants, John and Stu, was omitted. Stu completed a 3-week baseline and completed all 12 sessions of therapy but elected not to complete any outcome measures during that time, so there was no data to report in his case. John opted to drop out of the study prior to starting therapy after completing an 11-week baseline. For completeness, the baseline data for John and Stu is reported in Appendix J (see Figures 10 -12 and Table 10, p.249).

For the 11 other men who continued on in the therapy and/or follow-up phases, visual analysis of trend, variability, and level compared each participant's baseline scores with their scores throughout treatment, and follow-up to determine therapy outcomes for each individual as well as for the participants overall. In addition, individual scores for the CBSI, CSBCS, RSQ, and FIS were compared across pre-therapy, post-therapy, and follow-up.

Non-Regression Based Statistics

In addition to visual analysis, it is recommended that further analyses of the data are included if a stable baseline is unable to be established or when new treatments are being evaluated, which both applied in the current study (Franklin et al., 1996; Kazdin, 1982). Regression based statistics are advantageous due to their ability to account for trend (Olive & Smith, 2005). However, these types of statistics should be avoided in single-case design as data portrayed is not linear (serially independent; Olive & Franco, 2008). Non-regression based statistics are more appropriate, and effect sizes for single-case research design are one such non-regression based method to demonstrate the magnitude of change for each participant (Busk & Sterlin, 1992; Olive & Smith, 2005).

There are many different effect size algorithms described in the literature that may be used in single-case research design that are recommended depending on the design and aim of the study and subsequent analyses (e.g., behaviour reduction versus elimination; Olive & Franco, 2008). However, there is a lack of consensus on methods or standards for effect size analysis (Kratochwill et al., 2010). The current study selected two effect size algorithms which were the Standard Mean Difference all (SMDall) and the Standard Mean Difference (SMD₃; Busk & Sterlin, 1992; Olive & Smith, 2005). These were used for each individual rather than overall for the group on recommendations from Olive and Smith (2005). SMD₃ was used in collaboration with the similar SMDall, as by taking the mean of all data points, SMDall reduces the risk of inflated effect sizes that can occur by using just the final three data points which are in SMD (Busk & Sterlin, 1992; Olive & Franco, 2008; Olive & Smith, 2005). Used together, these algorithms are complimentary and use a simple calculation of the mean scores on baseline and intervention points. The calculation for SMDall is:

$$SMD_{all} = \frac{\text{Baseline Mean} - \text{Treatment Mean}}{\text{Standard Deviation of baseline}}$$

SMD calculates the effect size for each individual on each sexual behaviour measured, and is calculated using the mean of all baseline data and the mean of the final three intervention data points. The calculation for this is:

$$SMD_3 = \frac{\text{Baseline Mean} - \text{Treatment Mean (of last 3 data points)}}{\text{Standard Deviation of baseline}}$$

These two calculations have been interpreted by others using guidelines based on Cohen's *d* effect size which indicates the relative strength of the effect ranging from small (0.2 - 0.3), medium (0.4 - 0.7), to large (over 0.8) (Cohen, 1988; McIvor, 2011; Olive & Franco, 2008; Rucklidge & Blampied, 2011). The effect sizes for each participant are presented in the results

chapter and will be discussed as a positive effect or negative effect, as they can be interpreted in different ways depending on the type behaviour being measured and whether reductions or increases occurred. Effect size is not able to take into account trend or variability in the data and so is interpreted in the context of the visual analysis which presents this information, thus should be considered a supplementary method of data analysis (Olive & Franco, 2008).

Alternative algorithms which were considered but not used included Percent Zero Data (PZD; Scotti, Evans, Meyer, & Walker, 1991), Percentage of Non-Overlapping Data (PND; Scruggs & Mastropieri, 1998), Percentage of All Non-overlapping Data (PAND; Parker, Hagar-Burke, & Vannest, 2007) and Mean Baseline Reduction (MBR; Campbell, 2000). These were not utilised because it was not the goal of the current study to eliminate or necessarily reduce sexual behaviour as is captured by PZD and MBR (Olive & Franco, 2008). PND could have been applied but was not considered necessary as the most highly recommended algorithm for SCRD was SMD (Busk & Sterlin, 1992; Olive & Franco, 2008; Olive & Smith, 2005). PND cannot be used when a data point in baseline is at the ceiling or floor (e.g., if one data point was zero the PND would automatically be 0%) and in the current study this occurred for all participants on at least one behaviour which would have meant it could not have been used consistently. PAND required over 20 data points which made it unable to be used as the longest baseline in the present study was 11 (Parker et al., 2007).

Ethical Considerations and Procedure

The study was carried out according to the Code of Ethics for Psychologists Working in Aotearoa New Zealand (Code of Ethics Review Group, 2002). The study was granted ethical approval by the Central Regional Health and Disability Ethics Committee in November 2011 (CEN/11/09/050). Ethical issues of relevance to the current study follow.

Informed Consent

All prospective participants who contacted the researcher were provided with an information sheet (see Appendix G) and had the opportunity to ask further questions about the study. The information sheet fully informed the participants about the cost and timeframe of therapy, and also indicated that the study was evaluating the effectiveness of a treatment for OCSB, although did not describe the study's hypotheses and so they were blind to this. The information sheet also provided details about participation being voluntary and that participants could withdraw from the study at any time, but that any data collected up until the time of withdrawal could be included. Participants were informed that the findings would be written up as part of a thesis for the researcher's Doctorate in Clinical Psychology, and that no identifying details would be included.

Confidentiality and Anonymity

Prospective participants were able to confidentially contact the researcher prior to consenting to participate. All emails were received on the researcher's password-protected home computer, and any documents that volunteers completed via email or postal mail were sent using confidential ID numbers to the researcher at a freepost address at Massey University. Details such as names, phone numbers, and addresses of those who did consent were known only to the researcher and the STNZ clinical psychologist that they were referred to. Completed questionnaires were non-identifiable to anyone except the researcher and were kept securely. The data were also recorded into Microsoft Excel (2010) and SPSS (Version 19, 2012) using these ID numbers. In addition, no identifying information was included in any research reports, and instead data were presented using pseudonyms.

Safety

The usual potential psychological risks of attending therapy applied in the current study. These risks included the possibility of increased emotional distress, re-experiencing of traumatic memories, and suicidality in cases of severe distress or depression. Clinical judgement used by

each therapist, adherence to the Code of Ethics for Psychologists (2002), and professional external supervision managed these risks. If acute mental health needs arose that could not be managed on an outpatient basis, a referral to acute mental health services would be made. In that instance, the research would not be continued for that participant although ongoing therapy could resume once imminent risk had passed. No safety issues occurred that required such referral, although one participant was referred for adjunctive alcohol treatment at the end of therapy, and one for trauma work which was completed after the study.

CHAPTER FIVE: RESULTS

It is not the type of behavior, its object, its frequency, or its social acceptability that determines whether a pattern of sexual behavior qualifies as sexual addiction; it is how this behavior pattern relates to and affects the individual's life. (Goodman, 1993, pp. 231)

Outline and Aims

The following results are divided into several sections which together evaluate the effectiveness of Intimacy Focused Therapy (IFT) for the participants of this study. The first section presents the psychometric data across the study phases which are displayed using individual raw scores and summarised visually using modified Brinley plots. Subsequently, data pertaining to the stability of baseline sexual behaviour and distress data are presented, followed by time-series graphs which show the sexual behaviour frequency and duration data over study phases, and effect sizes are presented. These results will be integrated with findings from the therapist adherence measure and therapist comments, and overall outcomes will be considered alongside participants' own unsolicited comments about treatment participation and outcome.

Overall Results

Individual results: Psychometric measures

Individual psychometric scores are provided here for completeness but subsequent modified Brinley plots will be focused on throughout this section, as they provide a more succinct summary of the data at a glance. Table 4 provides the raw data for participants at pre- and post-treatment as well as at follow-up, and this data is presented visually in the following modified Brinley plots. There was not a complete set of data for either of the two participants seen by Therapist 1 (Sam and Paul) as they did not complete any outcome questionnaires.

Table 4

Pre-, post-treatment, and follow-up raw scores across study phases

	Tom (Therapist 2)					Bill (Therapist 2)				
	Pre	Post	1mo	2mo	3mo	Pre	Post	1mo	2mo	3mo
CSBI ^a	33	41	-	-	-	44	55	52	52	59
CSBCS ^b	28	7	-	-	-	20	1	1	1	1
FIS ^b	93	57	-	-	-	118	105	106	106	115
RSQ:										
<i>Secure^a</i>	2.80	2.80	-	-	-	3.20	2.80	2.80	2.80	3.00
<i>Fearful^b</i>	1.25	2.00	-	-	-	2.75	2.50	3.00	3.00	2.50
<i>Dismissing^b</i>	3.00	2.40	-	-	-	3.00	2.00	2.20	2.20	2.20
<i>Preoccupied^b</i>	1.25	1.50	-	-	-	2.75	2.50	2.50	2.50	2.25

	Matt (Therapist 2)					Dan (Therapist 3)				
	Pre	Post	1mo	2mo	3mo	Pre	Post	1mo	2mo	3mo
CSBI ^a	13	29	48	35	-	33	56	54	53	52
CSBCS ^b	60	22	11	19	-	43	8	12	10	11
FIS ^b	114	120	114	130	-	115	108	110	89	97
RSQ:										
<i>Secure^a</i>	2.80	3.00	2.20	2.80	-	3.60	2.80	2.60	2.60	2.60
<i>Fearful^b</i>	2.00	2.75	3.25	2.75	-	3.00	3.00	2.25	2.50	2.50
<i>Dismissing^b</i>	4.20	3.20	3.80	3.60	-	3.20	3.60	2.80	2.80	3.20
<i>Preoccupied^b</i>	2.00	2.25	2.00	2.75	-	3.00	2.75	2.25	2.50	1.75

	Jim (Therapist 2)					Pita (Therapist 2)				
	Pre	Post	1mo	2mo	3mo	Pre	Post	1mo	2mo	3mo
CSBI ^a	35	53	-	56	63	33	53	52	-	41
CSBCS ^b	28	7	-	6	3	30	8	1	-	23
FIS ^b	102	87	-	91	70	80	87	106	-	101
RSQ:										
<i>Secure^a</i>	2.40	2.20	-	3.40	1.40	1.60	2.40	2.80	-	2.20
<i>Fearful^b</i>	1.75	2.75	-	2.75	2.50	1.75	1.75	3.00	-	2.00
<i>Dismissing^b</i>	2.80	3.60	-	3.20	3.80	2.80	2.60	2.20	-	2.60
<i>Preoccupied^b</i>	1.75	2.00	-	1.75	2.00	2.25	2.00	2.50	-	2.25

	Saul (Therapist 3)					Rick (Therapist 3)				
	Pre	Post	1mo	2mo	3mo	Pre	Post	1mo	2mo	3mo
CSBI ^a	33	46	57	53	42	26	48	53	51	50
CSBCS ^b	27	20	10	17	21	34	12	14	19	22
FIS ^b	85	74	65	72	70	104	105	120	113	129
RSQ:										
<i>Secure^a</i>	2.80	3.00	3.20	2.40	3.20	3.40	2.80	3.20	2.40	2.80
<i>Fearful^b</i>	3.25	3.00	2.25	2.50	2.25	3.50	3.00	3.25	1.50	3.00
<i>Dismissing^b</i>	3.40	3.20	3.40	3.60	3.40	3.00	3.00	4.00	2.20	3.40
<i>Preoccupied^b</i>	3.25	2.25	1.25	2.75	1.75	3.50	2.50	3.25	2.00	2.75

Note. CSBI = Compulsive Sexual Behaviour Inventory (range 13-65), CSBCS = Compulsive Sexual Behavior Consequences Scale (range = 0-84), FIS = Fear of Intimacy Scale (range = 35 -175), RSQ = Relationship Scale Questionnaire (subscales range = 0-5). 1mo = follow-up 1, 2mo = follow-up 2, 3mo = follow-up 3.

^a = lower scores indicate better control over sexual behaviour and/or higher secure attachment, ^b = lower scores equal less negative consequences from sex, less fear of intimacy, and/or less insecure attachment.

Modified Brinley Plots

This section provides an analysis of the scores across study phases for the measures of compulsive sexual behaviour (CSBI Control scale), consequences of sexual behaviour (CSBCS), fear of intimacy (FIS), and attachment (RSQ). Data were collected at the first week of baseline and then at post-therapy, 1-month, 2-month, and 3-month follow-up. Post-therapy data were collected the week following the 12th therapy session and the 1-, 2-, and 3-month follow-up data were collected the week immediately following that time period. As there were no noticeable differences between 2-month and 3-month follow-up data, all 2-month data for modified Brinley plots is presented in Appendix K.

Of the 11 participants who completed at least some of the treatment phase, only 8 completed post-treatment psychometric measures (72%). In terms of the follow-up phase, only 7 participants provided this data for at least one follow-up point (55%). The following modified Brinley plots reflect the data available, and each point on the plot represents one participant's scores over the phases being compared. The data was compared across phases to see if there were any changes in outcomes for participants at different phases. Improvement was signalled by increased CSBI scores (i.e., increased control of sexual behaviour), and increased secure attachment (i.e., increased comfort with closeness) above the line of no change. For CSBCS and FIS scores below the line of no change (i.e., decreased negative consequences of sexual behaviour and decreased fear of intimacy) reflect improvement as does increased secure and decreased fearful, preoccupied, or disorganised attachment.

Compulsive Sexual Behaviour Inventory – Control Scale (CSBI-Control)

A comparison of baseline (range = 13 - 44) to post-therapy data (range = 29 - 56) suggested that control over compulsive sexual behaviour increased for all participants and continued to increase at 1-month follow-up (see Figure 6). Scores comparing baseline to 3-month follow-up suggest these gains began to decrease somewhat for some participants, as did the

comparison of post-therapy and 3-month scores which show that there was minimal or no further change from post-therapy to follow-up, while for some, post-therapy gains were lost at 3-month follow-up. This indicates lesser control over sexual behaviour although still greater control than that recorded at baseline for all. Jim, Matt, Saul, and Rick's scores continued to improve between post-therapy and follow-up, while Bill and Jim's scores increased at 3-month follow-up. Dan's and Rick's increases at 3-months were largely maintained, while Matt, Pita, and Saul's reduced.

Compulsive Sexual Behaviour Consequences Scale (CSBCS)

The pattern of results for the CSBCS was very similar to that for the CSBI-Control scale. Negative consequences pertaining to sexual behaviour reduced from baseline (range = 20 - 60) to post-therapy (range = 1 - 22) for all participants and continued to reduce at 1-month follow-up (see Figure 5). Scores at the 3-month follow-up indicate these scores began to increase slightly for a few participants (Pita, Rick, & Saul). A comparison of post-therapy and follow-up scores show that there was minimal or no further change from post-therapy to follow-up for most (Bill, Matt, Dan, Jim, Rick, and Saul). For some, post-therapy gains were lost at 3-month follow-up (Pita and Rick) indicating that there were increased negative consequences of sexual behaviour for them, although less so than baseline. For several there were very low scores at 3-month follow-up indicating large changes had been maintained (Bill, Jim, Dan).

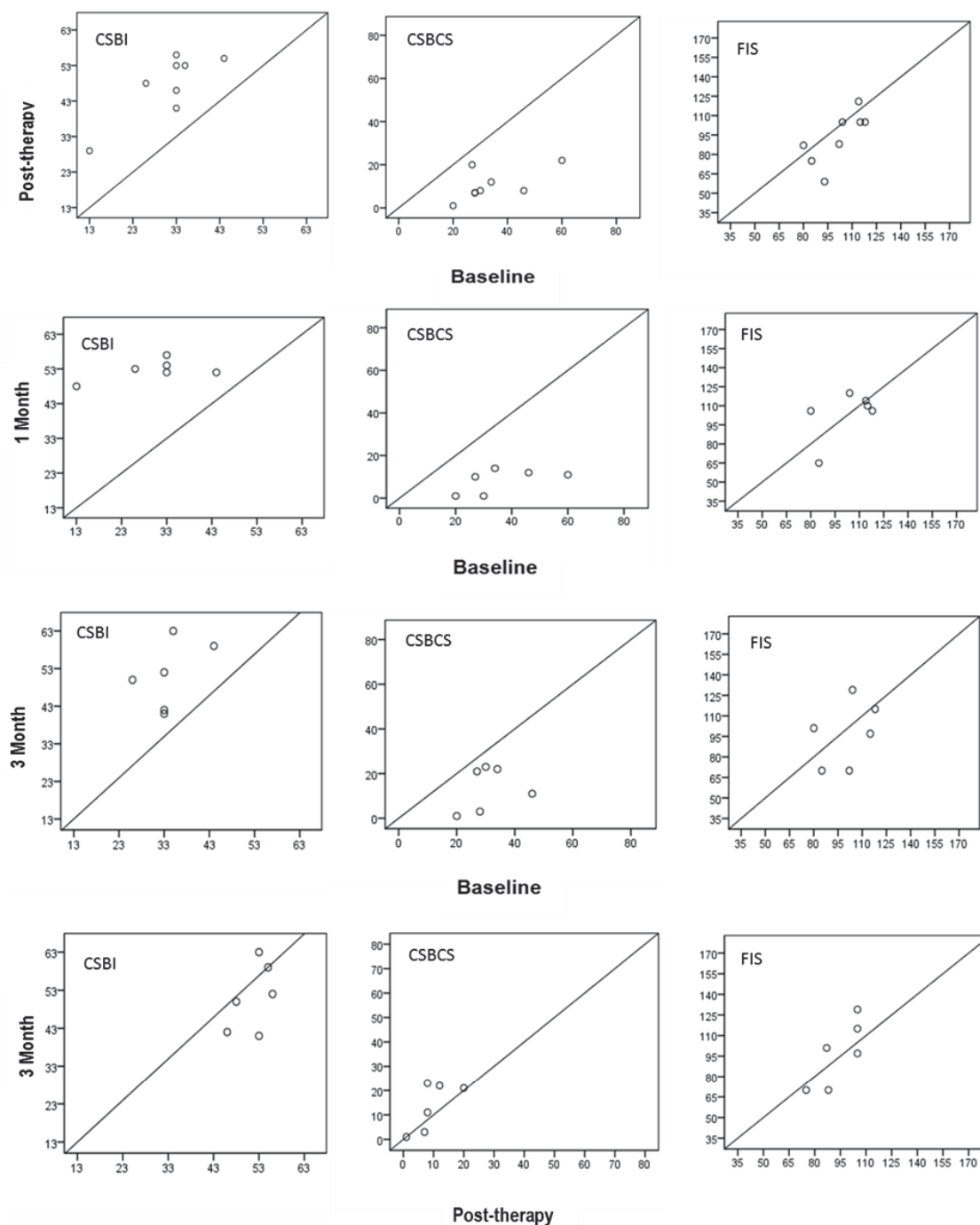


Figure 6. Modified Brinley plots of summarised group data for Compulsive Sexual Behaviour Inventory – Control Scale (CSBI), Compulsive Sexual Behaviour Consequences Scale (CSBCS), and Fear of Intimacy Scale (FIS) across baseline and post-therapy, baseline and follow-up, and post-therapy and follow-up.

Note. Improvement is observed where results for CSBCS and FIS reduce below and results for CSBI increase above the line of no change.

In addition to the pre-therapy data for the CSBCS, which was reported for the time period 'past 90-days', the baseline version of the questionnaire collected data on 'lifetime' consequences of OCSB that participant had experienced. A comparison of the data collected from these two time periods is presented in Table 5. Negative consequences from sex were higher over lifetime (range = 29 - 80) than the past 90 days for most participants, with only Sam and Dan having slightly more consequences over the past 90 days.

Table 5

'Lifetime' and 'past 90 days' scores for the Compulsive Sexual Behavior Consequences Scale

ID	Lifetime	Past 90 days
Sam	42	46
Tom	33	28
Bill	29	20
Matt	80	60
Dan	43	46
Jim	48	28
Paul	47	46
Pita	35	30
Saul	35	27
Rick	50	34

Note. Higher scores = more negative consequences relating to sexual behaviour.

Fear of Intimacy Scale (FIS)

The FIS changes were less striking, although reduced for five participants (Tom, Bill, Dan, Jim, and Saul) from baseline (range = 80 - 118) to post-therapy (range = 57 - 120), albeit to a far lesser degree than changes seen on the CSBI-Control Scale and CSBCS. Reductions were the most extensive post-therapy for Tom, but as he did not complete follow-up, outcomes beyond this are unknown for him. . Fear of intimacy increased from post-therapy for Rick Pita, Dan, Jim, and Bill, and moderately reduced for Matt and Saul at one-month and Jim, Saul, and Dan at 3-month. Rick, Bill, and Pita reported increased fear of intimacy at 3-month follow-up compared to post-therapy and baseline.

Relationship Scale Questionnaire (RSQ)

A comparison of baseline to post-therapy data indicated largely equivocal changes in the four measures of attachment generated by the RSQ, which are secure, dismissing, fearful, and preoccupied attachment (see Table 4, p. 110). Improvement is shown by increases in scores for secure attachment, and reductions in scores for the other three attachment subscales. Secure attachment indicates low anxiety and avoidance of closeness, and scores tended to cluster around the line of no change for most participants, and this continued over follow-up (see Figure 7). Pita and Saul's scores increased slightly at post-therapy and were maintained at the 1- and 3-month follow-up. A comparison of post-therapy and 3-month follow-up scores indicated little change over this time period, except for Jim and Dan, whose secure attachment scores reduced, indicating slightly higher anxiety and avoidance of closeness, although their FIS scores reduced which indicates less fear of intimacy between post-therapy and 3-month follow-up.

Dismissing attachment scores, which represent avoidance of closeness, showed the most noticeable change of the attachment subscales at post-therapy, with five participants' (Tom, Bill, Matt, Pita and Saul) scores reducing from baseline (range = 2.80 - 4.20) to post-therapy (range = 2.00 - 3.60), although these changes were only modest. Scores increased for two (Jim and Dan) and remained unchanged for Rick although his score increased markedly at 1-month follow-up, reduced markedly at 2-month follow-up, and remained increased from baseline at 3-month follow-up. Reductions at post-therapy continued for several participants over follow-up, particularly at 3-months, including for Bill, Dan, and Pita, representing a mild reduction in avoidance of closeness. A comparison of post-therapy and 3-month follow-up shows that dismissing attachment scores reduced further over the follow-up phase for these three participants, with the remainder sitting just above the line of no change.

Fearful attachment, associated with fluctuations between anxiety and avoidance of closeness, showed limited change from baseline (range = 1.25 - 3.00) to post-therapy (range =

1.75 - 3.00) or follow-up. At 1-month follow-up, three participants' scores increased slightly (Bill, Matt, Jim), one remained the same (Pita), and scores reduced slightly for Saul, Dan, and Rick. Similar results were seen at the 3-month follow-up with all except Jim reducing from baseline, and a comparison of post-therapy and baseline scores suggested minimal change over this time period.

Preoccupied attachment, associated with anxiety about closeness, clustered around the line of no change showing limited change from baseline (range = 1.25 - 3.50) to post-therapy (range = 1.50 - 2.75) however there were reductions across follow-up for some. Scores reduced at 1-month follow-up for several (Dan, Saul, and Rick), but increased slightly for Pita and remained the same for Bill and Matt. A comparison of 3-month follow-up with baseline shows reductions for Bill, Dan, Saul, with 3-month follow-up scores being reduced from post-therapy for Dan, Saul, and Rick. Scores for Pita at this time showed no change from baseline while Jim's scores increased slightly.

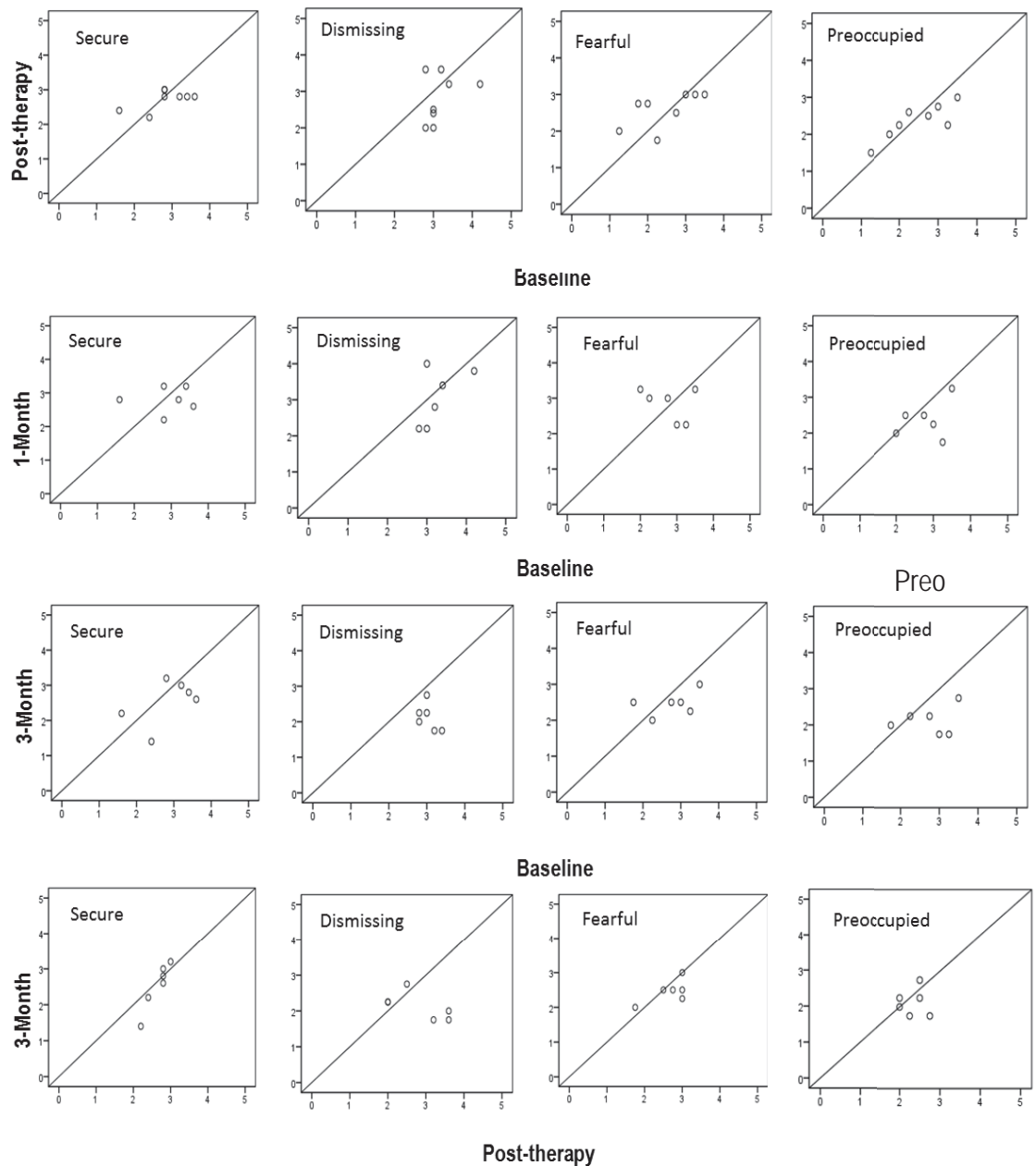


Figure 7. Modified Brinley plots of summarised group data for the Relationship Scale Questionnaire Subscales across baseline and post-therapy, baseline and follow-up, and post-therapy and follow-up.

Note. Improvement is observed where scores are below the line of no change, aside from the Secure subscale for which interpretation is reversed.

Dismissing and preoccupied attachment are opposing constructs in that they measure avoidance of closeness and anxiety about closeness, respectively (Brennan et al., 1998). Figure 6 shows that, for Bill, both dismissing and preoccupied attachment reduced, while both increased for Jim. Other dismissing scores reduced while their preoccupied scores increased or stayed the same (Matt, Pita, Pita, Dan), and vice versa where preoccupied scores reduced and dismissing increased or stayed the same (Saul and Rick). These mixed findings suggest that some individuals reduced or increased in both avoidance and anxiety about closeness, others who scored as less avoidant of closeness also scored as more anxious about closeness, and vice versa for those with reduced preoccupied scores and increased dismissing scores. Overall though secure attachment tended to show limited change over any phase of the study, although reduced at 3-month follow-up for Jim. Both dismissing and preoccupied attachment reduced, particularly over follow-up, while fearful attachment showed minimal changes post-therapy, and at final follow-up showed virtually no change from either pre-therapy or baseline.

Individual Results

Baseline Stability

As discussed in the method chapter, the successful use of a multiple baseline design relies on the presence of a stable baseline which is characterised by no more than 50% variability in behaviour over three or more data points (Hersen & Barlow, 1984; Kazdin, 2011). Visually, this is determined by the absence of a slope or trend over the baseline data points which indicates that a participant's scores would remain relatively similar if no intervention was applied (Hersen & Barlow, 1984). The data collected throughout the baseline weeks was sexual behaviour (duration and frequency) and distress associated with sexual behaviour.

In the current study, obtaining a stable baseline for the eight sexual behaviours measured and the distress associated with them proved somewhat problematic. OCSB is often not

inherently stable and does not necessarily relate to specific or regular frequency or duration of behaviour (Twohig & Crosby, 2010). This meant that there could be sources of variability in that sexual behaviours could be expected to vary over baseline for the same participant as well as across participants. Because multiple sexual behaviours were measured, there was variety in behaviour stability per participant across different behaviours, where some behaviours were stable for each participant, and others were unstable.

Table 6 presents the baseline score ranges for the 10 participants' weekly self-reported sexual behaviours and SUDS ratings. All participants provided at least three data points over baseline which enabled adequate visual analysis of stability (Hersen & Barlow, 1984). The distress scores had a common denominator (i.e., maximum score of 10) which meant that a percentage of change score could be calculated. Percentage change in distress scores were within the recommended 50% level for most participants; however, scores exceeded this for three participants. Dan and Paul had unstable baseline distress data, and Pita's ratings changed by 50% over baseline which borders on being unstable (Hersen & Barlow, 1984).

Regarding the sexual and other behaviours which were rated for frequency or duration (in hours) over the past week, there were clearly stable baselines over all behaviours for several participants (Bill, Jim, and Rick) but an absence of stability for others. It was not possible to calculate the percentage of change for the behaviour data because there was no maximum score (i.e., any frequency of behaviour or hours engaging in behaviour was possible). Multiple behaviours were measured and, as shown in Table 6, seemed to be inherently unstable either for most participants (e.g., hours of fantasy) or for some (e.g., frequency of pornography use and internet sex), it was not possible for all behaviours to be stable for all participants prior to the onset of treatment. The only stable behaviour over all participants was frequency of drug use, public sex, and paid sex which likely were stable as participants reported minimal occurrence of any of these behaviours. There was no drug use reported by any participant except Paul's single

account, and consequently this was not explored further in subsequent analyses. Alcohol use was reported by most participants but was also not explored in subsequent analyses as the use of alcohol had not been monitored in relation to problematic sexual behaviour specifically, and therefore did not add to the study's aim. Additionally, satisfying sex was not further examined for this reason.

Typically in single case research design, the onset of treatment is withheld pending a stable baseline as the design requires stability in order to determine whether or not changes can be attributed to the intervention (Hersen & Barlow, 1984; Kratochwill et al., 2010). In the current study, this was simply not possible due to the difficulties in acquiring stable baselines for all participants over all domains, as well as the fact that treatment onset depended on therapists' schedules, ethical obligations to provide treatment for individuals in distress (and most participants reported fairly high levels of distress over baseline), and time constraints of the researcher, and so treatment was not withheld until all baseline data was stable. Consequently, there was less than adequate stability over baseline for several of the sexual behaviours in particular, which affects comparisons with the treatment stage for some participants. The following analysis will focus attention on participants for whom a stable baseline was obtained.

Table 6

Baseline range across participants' sexual behaviours and distress

	Sam	Tom	Bill	Matt	Dan	Jim	Paul	Pita	Saul	Rick
Distress ^a	7-8 (10)	7-9 (20)	2-3 (10)	4-7 (30)	2-8 (60)	4-6 (20)	0-7 (70)	2-7 (50)	6-8 (20)	4-7 (30)
Partner sex ^b	0-3	3-5	1-1	0-2	0-1	0-1	0-11	2-4	0-1	0-2
Masturbated ^b	4-10	7-10	8-11	0-3	7-9	1-3	7-14	0-2	2-6	1-4
Public sex ^b	2-3	0	0	0	0	0	0-1	0-1	0-1	0
Paid sex ^b	0	0	0	0	0	0	0	0-2	0-1	1-3
Pornography ^c	2-14	7-10	5-7	4-20	0-2	.5-2	1-5	0-2	1-10	0-3
Fantasy ^c	14-21	8-10	1-2	1-20	3-30	1-5	3-10	2-14	1-16	1-4
Internet sex ^c	0-14	7-10	5-8	1-10	0-28	0	2-5	0-2	1-10	0-3
Satisfying sex ^c	0	2-4	1-1	0-1	0-1	0-1	0-6	2-4	0-1	0-2
Other ^b	0	0	0	0	0	0	0	0-3	0-8	0-2
Used drugs ^b	0	0	0	0	0	0	0-1	0	0	0
Alcohol ^d	0	2-20	0	10-25	0	30-45	9-29	0-8	12-22	0-3

Note. Data in bold indicate an unstable baseline. The data in parentheses for distress ratings constitutes the percentage of change.

^a Subjective Units of Distress Scale (where 10 = most distressed about sexual behaviour and 0 = not at all distressed)

^b Indicates frequency of behaviour in the past week

^c Indicates duration of behaviour in the past week

^d Standard drinks

Time Series Data

This section provides the time-series data which was collected more frequently across baseline and treatment than the psychometric measures described earlier. Time-series data for sexual behaviour frequency, duration, and distress about sexual behaviour was collected weekly across the baseline and treatment phases and then monthly for three months over the follow-up phase. For the purpose of comparing varying treatment lengths using time-series graphs, the treatment phase points represent sessions rather than weeks, with the length of each treatment phase in brackets within each graph.

The following time-series graphs present the sexual behaviour data for each participant for the baseline phase (per week), the week each treatment appointment was held, and the previous

week to each monthly follow-up assessment. While it was intended that the baseline lengths would be 3, 5, and 7 weeks and randomised across participants, practical circumstances lead to different lengths on baseline for some participants. This meant either having a 4 ($n = 2$), 6 ($n = 2$), or 11 week baseline ($n = 1$) for some participants.

It is important to note that the one-hour treatment sessions were designed to be at an individualised frequency that suited each participant's treatment needs, therapist and participant availability, and feasibility to attend appointments. For example, two participants travelled two hours each way to attend therapy and it was not practical for them to do this on a weekly basis. Thus appointments ranged from weekly, fortnightly or less frequently. For most participants who completed the full 12 sessions of therapy, the time taken to complete therapy ranged between 15 and 26 weeks; however there was 1 participant who took 49 weeks (Sam). The total time taken to complete therapy for each participant is included at the top of the following time-series graphs so that this can be taken into consideration in analysing the data. It is important to be aware that, as per the ethical obligations of providing therapy, that participants' were permitted to continue in self-funded therapy beyond the completion of the study's treatment phase. Four participants did this and they were Bill (engaging in ACC trauma work), Matt (6 weekly booster sessions), Dan (frequency unknown), and Pita (no sessions beyond the first 1-month follow-up).

There is incomplete follow-up data, however the majority ($n = 7$) responded to at least 2 follow-up points. The study phases are differentiated by labels at the top of the figure. Only behaviours that were reported at least once by each participant have been included, which meant that 'masturbation' and 'partner sex' were presented for all participants while 'public sex', 'paid sex', and 'other' were only presented if reported. Additional information about the specific nature of each behaviour was not gathered for each participant, so variety likely exists in this respect as well. For example, partner sex could have been within a relationship with one person or with multiple partners. The content of mental imagery during fantasy or material viewed while

masturbating was likely to vary between participants. As a result, any change in sexual behaviour, which may have been relevant to individual goals, was not able to be captured (and is discussed more fully later in this thesis).

Frequency of sexual behaviour varied over the study phases. This is consistent with the OCSB literature and may reflect the idiosyncratic and often inconsistent nature of sexual behaviour (Twohig & Crosby, 2010). It is important to be reminded here that the study's aim was not to eliminate or even reduce sexual behaviour per se as the definition of OCSB was founded on the control over and/or presence of distress or impairment resulting from sexual thoughts, feelings, or behaviour (Reid & Woolley, 2006). In addition, participant goals were not recorded and so it is not known which behaviours concerned them or were a focus of therapy. Thus sexual behaviour data was collected as one form of measurement that has been reported to be clinically useful, but this is particularly so when related to other measures, including the level of distress or impairment resulting from particular behaviours, which the following data analysis attempts to consider (Hook et al., 2010; Reid & Woolley, 2006).

Time Series Graphs

Frequency of Self-Rated Sexual Behaviour

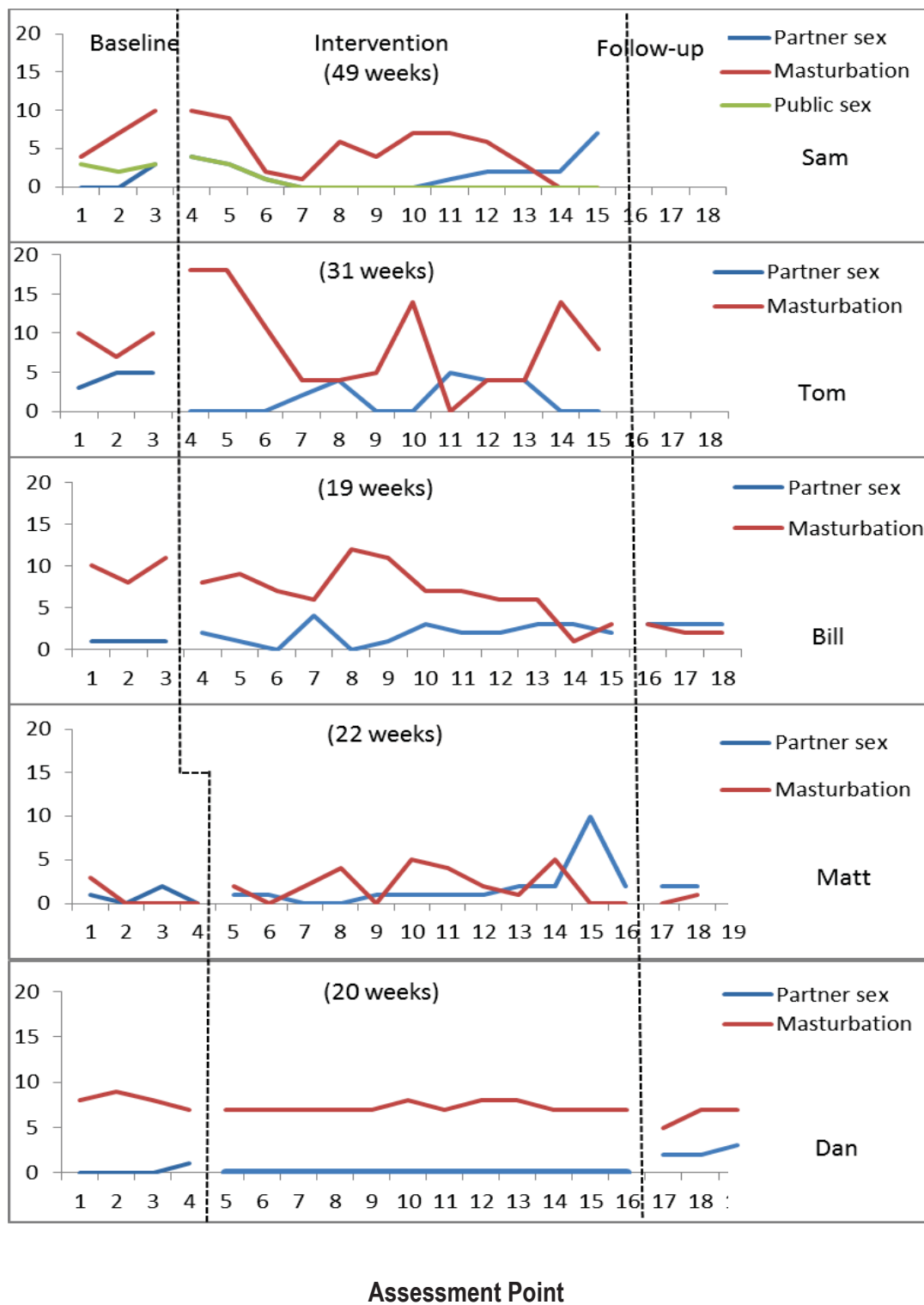
Figure 8 shows the results for the self-rated sexual behaviour across the study phases. There were diverse patterns of change from baseline to end of treatment and follow-up for participants in terms of the frequency of their sexual behaviours. It is clear that, for some participants, the frequency of some reported behaviours reduced. Additionally, some behaviours stayed relatively the same while others tended to increase. There was no overall pattern for participants as results depended on the behaviours that were reportedly being engaged in and changes over therapy were individual and idiosyncratic. As has already been noted, baseline scores for sexual behaviour frequency were not always stable. Baseline scores were stable for Tom, Bill, Dan, Jim, Pita, Rick, Matt, and Saul, and therefore their data will be the focus of this

analysis. Of those with unstable baselines, visual analysis suggests an upward slope over baseline for Sam and Paul, indicating increases in masturbation frequency prior to therapy. Partner sex scores showed a relatively linear trend for most (Tom, Bill, Dan and Saul, Jim, Pita, and Rick), with variety and instability being the trend for others. Masturbation tended to be less stable than partner sex for most participants over baseline, suggesting this behaviour may be less consistent than sex with a partner.

Visual inspection of the data collected over the intervention phase suggests that there were clear reductions in some behaviour scores as well as times where scores sloped upwards over therapy. Changes to sexual behaviour did not necessarily occur immediately with the onset of treatment, although did so for Sam, Tom, Bill, and Paul. Of those with stable baselines, the most consistent reduction was for masturbation which trended downwards for Tom, Bill, and Saul. Masturbation initially increased at the start of therapy for Pita before trending downwards and then sloping upwards at the end of therapy. Partner sex increased over therapy for Matt and Rick and this tended to occur towards the end of therapy rather than earlier on. For Matt, Pita, and Rick, increases in partner sex over therapy coincided with a reduction in masturbation, but not compared to baseline.

The follow-up scores suggest that frequency of behaviour reported at the end of treatment tended to remain similar at follow-up. There was no follow-up data for Sam, Tom, and Paul and some follow-up data was missing for Matt, Jim, and Pita. Masturbation frequency sloped slightly upwards for Rick and Saul at the two- and three-month follow-up. Partner sex increased at the three follow-up points for Dan, coinciding with a slight drop in the frequency of masturbation.

Frequency



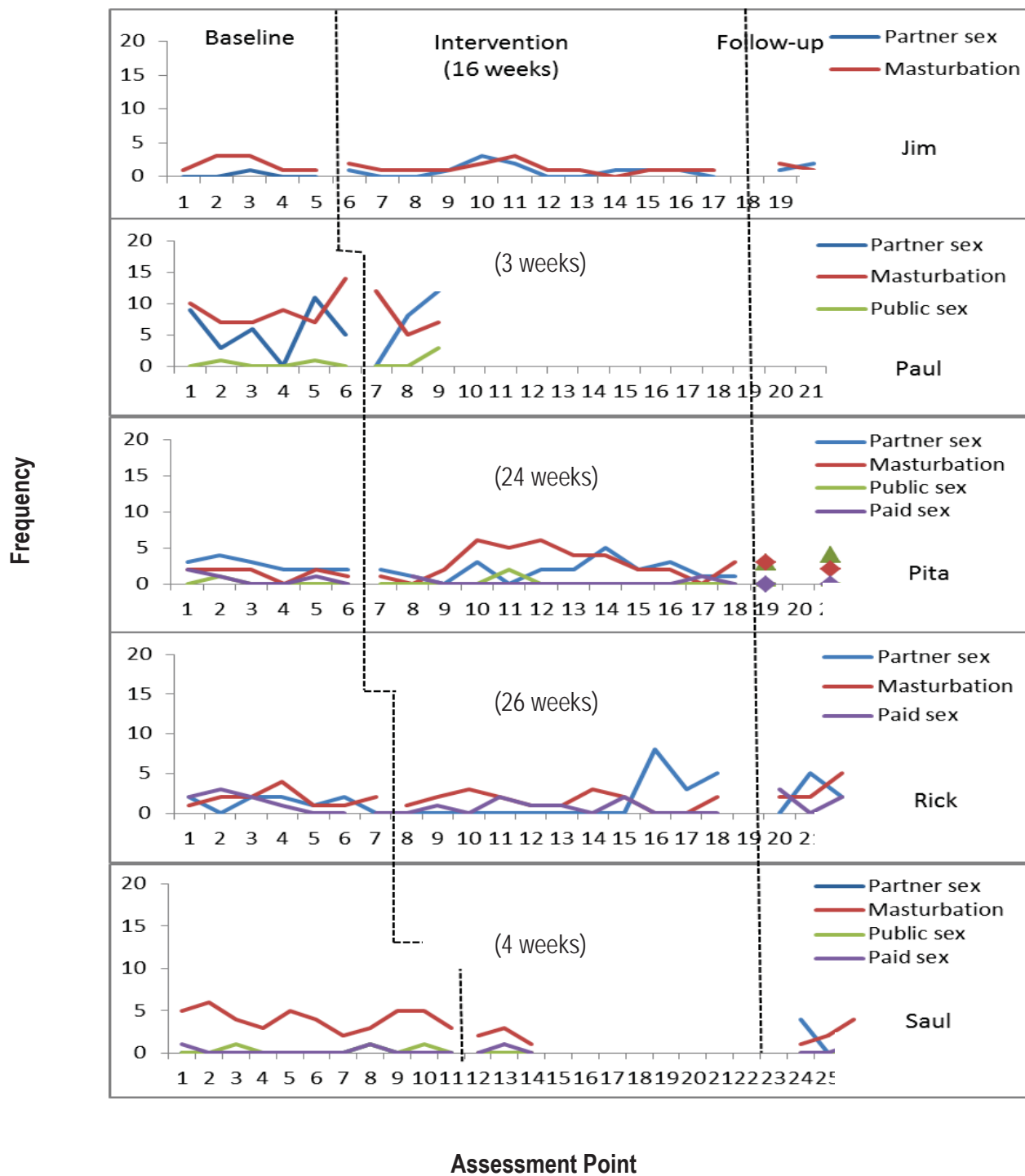


Figure 8. Time-series individual data for frequency of sexual behaviour over study phases.

Duration of self-rated sexual behaviour (hours)

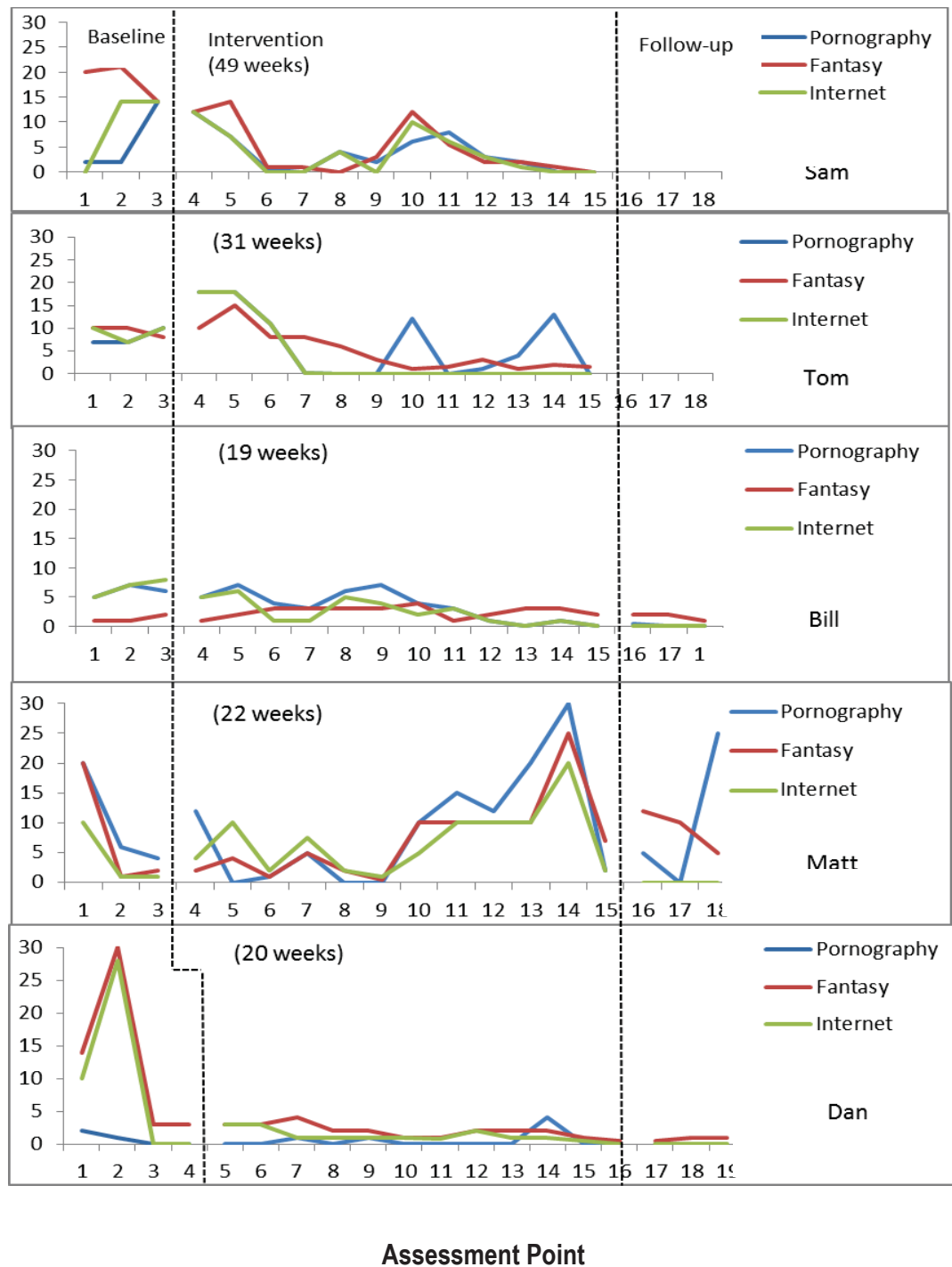
Figure 9 shows the results for the hours of sexual behaviour across the study phases. There were diverse patterns of change from baseline to end of treatment and follow-up for participants in terms of the duration of the measured sexual behaviours. For some participants, some types of sexual behaviours reduced in duration. Additionally, some behaviours stayed relatively the same while some tended to increase in how many hours men spent engaging in them. There was no overall pattern for participants as results depended on the behaviours that were reportedly being engaged in, and so changes over therapy were idiosyncratic.

There was less baseline stability in the duration of sexual behaviours than there was for frequency, and the focus of this analysis was on participants for whom a stable baseline was obtained. Visual analysis suggested stable baselines for Tom, Bill, Jim, and Rick; however either downward or upward slopes were present during baseline for the remaining six participants. There was a downward trend for Matt, Dan, and Saul indicating reductions in the time spent in each of the three behaviours prior to therapy starting, as well as for Pita in relation to fantasy. Sam reported both an increase in fantasy and internet sex as well as a decrease in pornography viewing over baseline, while Paul reported an increase in fantasy and pornography.

Visual inspection of the data collected over the intervention phase suggests that there were reductions in duration of some behaviours as well as times where duration sloped upwards over therapy. Clear downward slopes in time spent in sexual behaviours were seen for Sam, Tom, and Bill, although Sam had unstable baselines for pornography and internet sex. Matt, Dan, and Pita, whose behaviour reduced over baseline and thus was not stable, all had variable patterns over therapy with Matt's behaviour duration increasing significantly from the 7th session and dropping again at the 12th, which coincided with the pattern of frequency of sexual behaviour. Dan's behaviour, in contrast, remained reduced for the duration of therapy which also coincides with his constant frequency of sexual behaviour. Pita's duration of behaviour had no noticeable slope

except for sexual fantasy which steadily increased until midway through therapy and then declined. Both Jim and Rick had very minimal duration of pornography viewing or sexual fantasy over the treatment phase, although Rick's duration of pornography reduced to that seen over baseline. Tom's internet sex and fantasy scores trended down while pornography viewing increased at certain points in therapy. Saul, who engaged in just three sessions, reported a downward trend in duration of all three sexual behaviours however this trend began during baseline.

The follow-up scores show that duration of behaviour reported at the end of treatment tended to remain similar after treatment for most participants and this occurred even for Saul who had engaged in just three sessions. There was no available follow-up data for Sam, Tom, or Paul and there was missing data for one follow-up point for Pita and Jim. In most instances, follow-up scores reflected a reduction in these behaviours from baseline, particularly for pornography and fantasy which were the most consistently reported behaviours with the greatest duration of time spent engaging in them. Pornography viewing for Matt reduced over therapy and increased toward the end of therapy, reduced at 1 and 2 month follow-up (over which time he had 6 weekly self-funded booster sessions), and then again increased at the 3-month follow-up. Pita, whose duration reports had fluctuated during therapy, had reduced follow-up behaviour durations indicating that these reduced following therapy, which may reflect the impact of the ongoing therapy he was having and more time spent practising therapy skills. Given the varying results regarding sexual behaviour frequency and duration, and the lack of baseline stability for most participants, these data will now be considered in light of the distress scores.



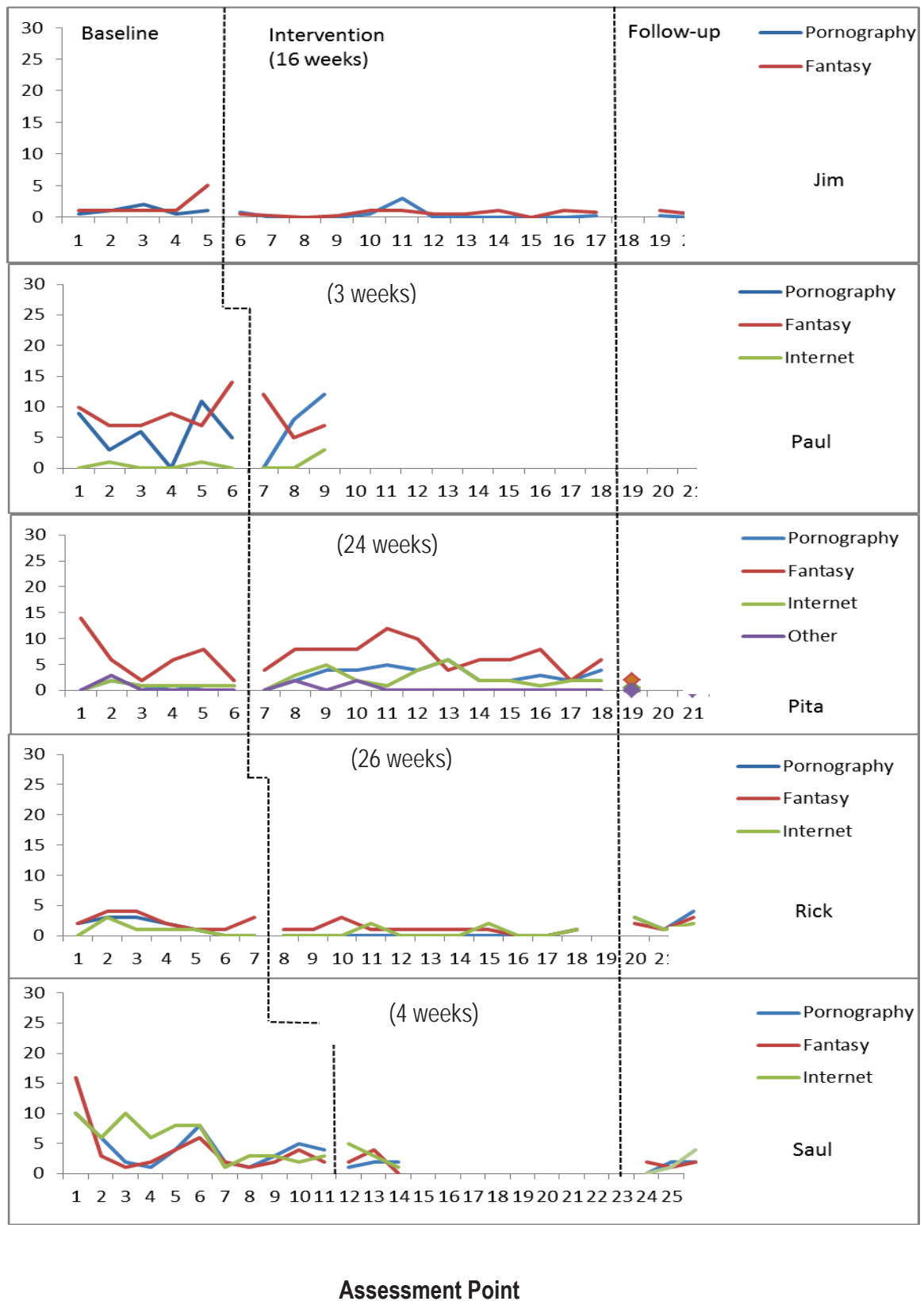


Figure 9. Individual self-reported duration (hours) of sexual behaviours over study phases.

Distress associated with sexual behaviour

Figure 10 shows the SUDS ratings across the study phases. There was incomplete follow-up data however the majority ($n = 7$) responded to at least two follow-up points. Phases are differentiated by labels at the top of the Figure.

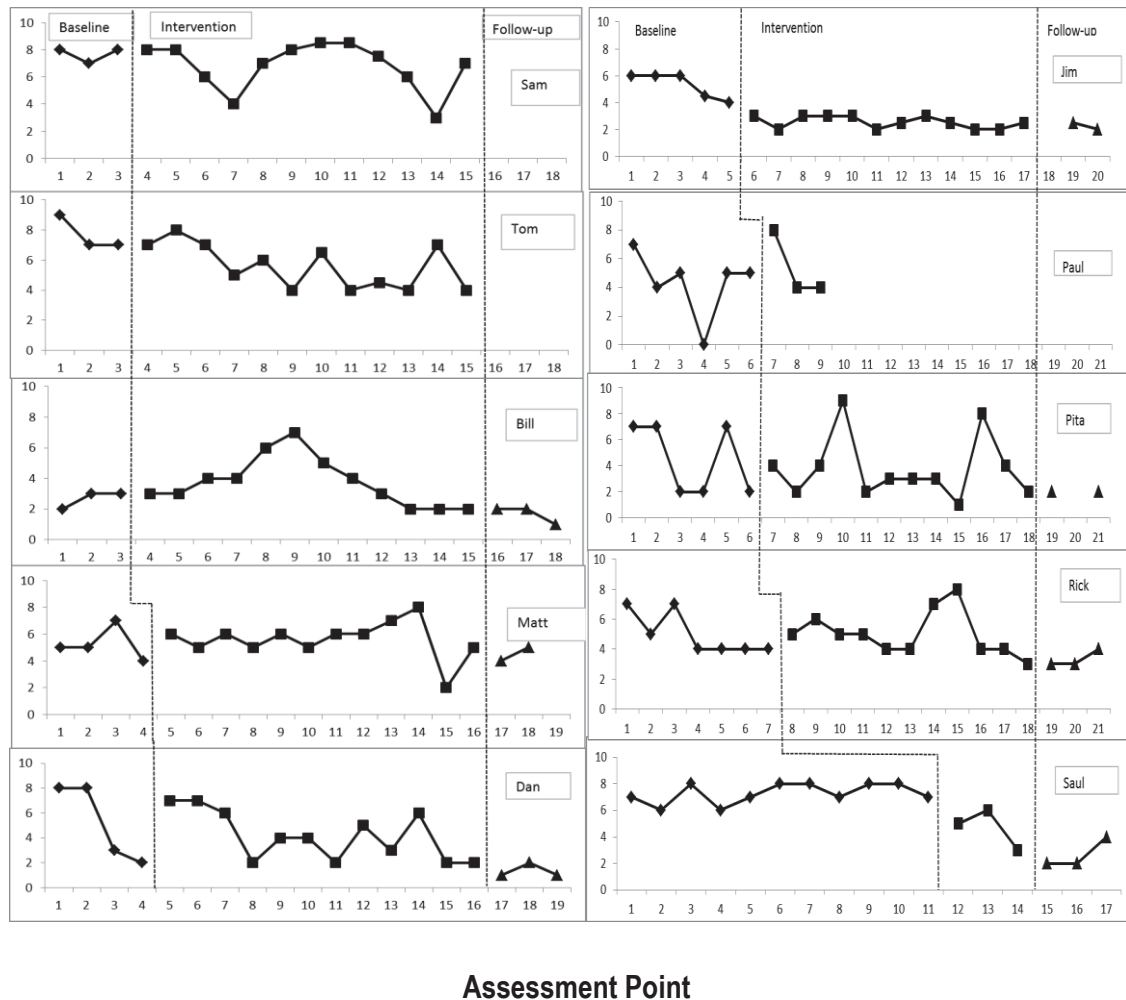


Figure 10. Time series graphs of Subjective Units of Distress about sexual behaviour over study phases.³

*0 = no distress 10= most distress (pertaining to sexual behaviour in the past 7 days).

³ The formatting of the figures for presenting distress data varies from previous figures due to differences in how Excel graphs can present different types of data.

Nine of the 10 participants had moderate to high baseline SUDS. Visual analysis indicated that distress was more stable than the sexual behaviour reporting had been. Unstable baselines were seen for Dan, Paul, and Pita whose distress scores either trended down, or in the case of Paul and Pita fluctuated a lot before treatment began. Percentage of change was elevated beyond the recommended amount of variability for Dan (60%), Paul (70%), and Pita (50%), and data analysis focused on those with stability in SUDS ratings (Hersen & Barlow, 1984; Kazdin, 2011; see Table 6, p. 121).

It is noteworthy that Paul indicated during the week his distress scores reduced to zero that he had been sick which he said was the reason for the lack of time he spent engaging in sexual activity, and otherwise his baseline may have been stable. In the case of Dan, distress steadily declined before the onset of therapy which may indicate the effects of instilling hope which may have resulted from having phone contact with the therapy provider or agreeing to participate in research. In addition, simply monitoring behaviour had the effect of reducing sexual behaviour for some participants (see Paul's comment on page 149 and Dan's reduced behaviour duration at the end of baseline) which may have contributed to reduced distress rating.

Distress scores tended to reduce over therapy; however the pattern across participants varied. For Jim and Saul, distress reduced at the onset of treatment while for Sam and Tom there were times that distress increased, including an increase towards the end of therapy for both and a steady increase during therapy for Sam. For Matt and Rick there was a pattern of distress increasing around the onset of the treatment phase, which may reflect the effect of talking to someone about their concerns and the distress this may evoke. Alternatively, increased distress may relate to increased awareness of the problem they were seeking assistance for and increased dissonance around facing behaviour change (Orzack et al., 2006). This pattern occurred too for Dan and Paul who had unstable baselines.

Distress patterns for participants often related to their patterns of sexual behaviour frequency or duration. For example, Bill's distress level showed an uphill slope as mid-therapy approached which then sloped down until the end of therapy, which coincided with his masturbation frequency (see Figure 8, page 126). Matt reported a fairly consistent level of distress which reduced substantially at the second to last session which followed a spike in pornography, fantasy, internet sex and masturbation that then reduced by the completion of therapy. Pita reported an increase in distress early in therapy and towards the end of therapy, and this coincided with sexual fantasy patterns, although the baseline for him was unstable. A similar pattern was evident for Rick, who reported an increase in distress during the second half of therapy that coincided with an increase in partner sex.

These patterns may indicate that these particular behaviours were the sexual behaviour most distressing for the participant; however it is not possible to explain what it is about those behaviours that were so upsetting for participants, as this data was not collected by the researcher and neither were participant goals. Increased distress during therapy could also reflect particular components of treatment that were being delivered at that time, such as discussing historic sexual abuse or working on sexual behaviour with a partner, as well as being distressed when there were lapses into behaviours that they were attempting to alter or reduce. Distress towards the end of therapy may correlate with anxiety about finishing therapy, which may evoke a short-lived return of symptoms that brought the client into therapy if difficulties regulating anxiety lead to using sex as a method of self-soothing or 'excitation transfer' (Bancroft, 2008). Matt's spike in sexual behaviour at the second to last session occurred alongside greatly reduced distress ratings and was an anomaly in the data. This could reflect that the content of behaviours were not distressing to him although the duration of time spent in those behaviours and frequency of masturbation was high.

Reductions in distress associated with sexual behaviour were largely maintained at 1-3 months of follow up for those who completed follow-up questionnaires. Scores for Saul, Matt, and Rick had an upward trend at the last follow-up point and may reflect the effects of therapy beginning to dissipate and a relapse of distress about sexual behaviour.

Non-Regression-Based Statistics

Two non-regression algorithms were used in order to complement visual analysis given that the research was exploratory and there was a lack of baseline stability for several participants (Franklin et al., 1996; Kazdin, 1982). These algorithms were Standard Mean Difference (SMD₃) and Standard Mean Difference all (SMDall), which were calculated for all participants for sexual behaviour frequency, duration, and distress variability from baseline to end of therapy as well as from baseline to follow-up (Busk & Sterlin, 1992; Olive & Smith, 2005). These two algorithms follow interpretative guidelines using Cohen's *d*, where a small effect ranges from 0.2 – 0.3, a medium effect from 0.4 – 0.7, and anything over 0.8 is a large effect (Cohen, 1988). The effect sizes in the current study will be discussed as a positive or negative effect, as they can be interpreted in different ways depending on the behaviour being measured and whether reductions or increases were being targeted. Although, as previously noted, client goals were not elicited and so the concept of what was targeted in terms of sexual behaviours is subjective. Thus, positive or negative effects either supported the hypothesised direction of change or not and the strength of the effect indicated the magnitude of change.

Table 7 presents the SMD₃ and SMDall scores and highlights the variability in effect sizes across participants. SMD₃ effect sizes take the last three data points from the therapy phase and thus reflect changes from baseline to the end of therapy. SMD₃ effect sizes were generally higher than SMDall effect sizes which compare baseline scores with the mean of all data points over the therapy phase. This difference in effect size is expected as the end of therapy would be predicted to show greater improvements than over the full duration of therapy (Olive & Smith, 2005). SMD

effects are noted to risk over-inflation, which is one of the limitations of using this algorithm (Olive & Franco, 2008). For this reason, they are used as supplementary analyses that are integrated with visual methods which can account for trend (Olive & Franco, 2008). Other research using single-case design has also found rather high effect sizes, such as one study examining treatment for needle phobia, which reported positive effects ranging from 0.7 to 10.1 according to Cohen's d , indicating reductions in targeted behaviour, although the researcher used SMDall and not SMD₃ which were likely to be even higher (Cohen, 1988; Mclvor, 2011). A variety of effect sizes, including several very large effects were also found when calculating SMDall for a single-case study to evaluate ACT treatment for pornography viewing (SMDall range -0.01 – 2.94; Twohig & Crosby, 2010). SMD₃ was not able to be calculated using the data provided by the authors but also would be likely to be higher (Twohig & Crosby, 2010). These studies suggest that both variety and very large effects are common when using SMDall, which were also seen in the current study.

Table 7

SMD₃ and SMDall effect sizes for sexual behaviour frequency, duration, and distress across study phases

		SMD ₃		SMDall	
		Baseline/ Treatment	Baseline/ Follow-up	Baseline/ Treatment	Baseline/ Follow-up
Sam	Masturbation	6.67	-	5.47	-
	Partner sex	-1.12	-	-0.06	-
	Public sex	2.67	-	1.51	-
	Pornography	5.90	-	5.46	-
	Fantasy	18.07	-	17.16	-
	Internet	9.29	-	8.89	-
	Paid sex	-	-	-	-
	Distress	-1.57	-	-4.10	-
Tom	Masturbation	4.00	-	4.00	-
	Partner sex	3.18	-	2.96	-
	Public sex	-	-	-	-
	Pornography	4.73	-	4.29	-
	Fantasy	8.03	-	5.00	-
	Internet	9.00	-	6.73	-
	Paid sex	-	-	-	-
	Distress	3.34	-	2.83	-
Bill	Masturbation	5.96	6.61	3.61	6.61
	Partner sex	-	-	-	-
	Public sex	-	-	-	-
	Pornography	5.67	5.83	3.61	5.83
	Fantasy	-3.29	-1.55	-3.00	-1.55
	Internet	6.45	6.67	5.08	6.67
	Paid sex	-	-	-	-
	Distress	-0.80	-0.23	-3.83	-0.23
Matt	Masturbation	-0.36	0.42	-0.64	0.42
	Partner sex	-4.12	-1.34	-1.16	-1.34
	Public sex	-	-	-	-
	Pornography	8.46	8.07	9.26	8.07
	Fantasy	4.91	0.41	5.44	0.41
	Internet	1.33	-0.12	2.20	-0.12
	Paid sex	-	-	-	-
	Distress	1.28	1.67	0.81	1.67
Dan	Masturbation	-0.57	0.24	-0.57	0.24
	Partner sex	0.25	-4.42	0.25	-4.42
	Public sex	-	-	-	-
	Pornography	-0.64	0.75	0.23	0.75
	Fantasy	12.41	12.43	12.35	12.43
	Internet	9.46	9.50	9.40	9.50
	Paid sex	-	-	-	-
	Distress	4.21	4.83	3.95	4.83

		SMD ₃		SMDall	
		Baseline/ Treatment	Baseline/ Follow-up	Baseline/ Treatment	Baseline/ Follow-up
Jim	<i>Masturbation</i>	0.73	0.27	0.43	0.27
	<i>Partner sex</i>	-1.04	-2.91	-1.42	-2.91
	<i>Public sex</i>	-	-	-	-
	<i>Pornography</i>	1.55	1.43	0.86	1.43
	<i>Fantasy</i>	0.68	0.59	0.70	0.59
	<i>Internet</i>	-	-	-	-
	<i>Paid sex</i>	-	-	-	-
	<i>Distress</i>	3.21	3.13	2.65	3.13
Paul	<i>Masturbation</i>	0.36	-	0.36	-
	<i>Partner sex</i>	-0.25	-	-0.25	-
	<i>Public sex</i>	-1.29	-	-1.29	-
	<i>Pornography</i>	-0.17	-	-0.17	-
	<i>Fantasy</i>	0.20	-	0.20	-
	<i>Internet</i>	-0.50	-	-0.50	-
	<i>Paid sex</i>	-	-	-	-
	<i>Distress</i>	-0.43	-	-0.43	-
Pita	<i>Masturbation</i>	-0.49	-1.49	-2.09	-1.49
	<i>Partner sex</i>	1.85	-1.62	0.63	-1.62
	<i>Public sex</i>	0.17	0.17	-0.24	0.17
	<i>Pornography</i>	-3.15	0.16	-3.37	0.16
	<i>Fantasy</i>	5.14	5.88	4.80	5.88
	<i>Internet</i>	-1.64	0.21	-2.95	0.21
	<i>Paid sex</i>	0.26	0.67	0.46	0.67
	<i>Distress</i>	2.80	3.77	3.13	3.77
Rick	<i>Masturbation</i>	1.23	1.26	0.41	1.26
	<i>Partner sex</i>	-4.32	0.98	-0.24	0.98
	<i>Public sex</i>	-	-	-	-
	<i>Pornography</i>	1.31	1.43	1.50	1.43
	<i>Fantasy</i>	2.17	0.09	1.64	0.09
	<i>Internet</i>	0.55	1.20	0.43	1.20
	<i>Paid sex</i>	1.14	0.73	0.62	0.73
	<i>Distress</i>	2.41	0.47	1.46	0.47
Saul	<i>Masturbation</i>	1.71	1.44	1.71	1.44
	<i>Partner sex</i>	0.30	-4.12	0.30	-4.12
	<i>Public sex</i>	0.58	0.58	0.58	0.58
	<i>Pornography</i>	0.87	0.98	0.87	0.98
	<i>Fantasy</i>	0.45	0.52	0.45	0.52
	<i>Internet</i>	0.76	1.17	0.76	1.17
	<i>Paid sex</i>	-0.37	-0.37	-0.37	-0.37
	<i>Distress</i>	3.31	5.86	3.31	5.86

Note. + = decrease in that variable; - = increase in that variable. *small = 0.2-0.3, medium = 0.4-0.7, large = >0.8 (Cohen, 1988). - indicates the calculation could not be performed due to a zero standard deviation.

Large positive effect sizes on both algorithms were seen for Sam on all sexual behaviours (SMDall range = 1.51; SMD₃ range = 2.67 for public sex – 17.16; 18.07 for sexual fantasy), indicating that these reduced, except partner sex which had a large negative effect indicating that this increased. Large negative effects were seen for his distress (SMDall = -4.10) although this was lesser for SMD₃ (-1.57), indicating that while distress did increase, this was greatest during early treatment sessions than overall. No follow-up data was available to establish longer term effects.

Tom also had large positive effects using both algorithms and this occurred across all behaviours (SMDall range = 2.96; SMD₃ = 3.18 for partner sex – 6.73; 9.00 for using the internet for sex) and distress (SMDall = 2.83; SMD₃ = 3.34), which represent reductions in all behaviours and a reduction in distress. No follow-up data was available.

Bill had very large positive effects for most behaviours which ranged from 3.61 - 5.08 (SMDall) and 5.67 – 6.45 (SMD₃) which indicated that these all reduced over therapy. The exception was for sexual fantasy which had a large negative effect, showing increases for this which reduced at follow-up, but was still increased from baseline to a large degree. A large negative effect was seen for distress (SMDall = -3.83; SMD₃ = -0.80) which showed increased distress over therapy although this reduced towards the end of therapy and further still at follow-up (SMDall and SMD₃ = -0.23).

There were large effects for Matt on pornography viewing, sexual fantasy, internet sex, and distress indicating these all reduced with a range of SMDall = 0.81 – 9.26 and SMD₃ = 1.28 – 8.46. Masturbation and partner sex both showed negative effects suggesting increases for these, with this being small to moderate for masturbation (SMDall = -0.64; SMD₃ = -0.36) and large for partner sex (SMDall = -1.16; SMD₃ = -4.12). At follow-up, these effects remained large, with the

exception of internet sex which showed a small negative effect and masturbation which showed a moderate positive effect indicating masturbation had reduced.

Dan had very large positive effects for fantasy ($SMD_{all} = 12.43$; $SMD_3 = 12.41$), internet sex ($SMD_{all} = 9.40$; $SMD_3 = 9.46$), and distress ($SMD_{all} = 3.95$; $SMD_3 = 4.21$) showing reductions in these variables over therapy. There was a small effect for partner sex increases and a moderate negative effect for masturbation and pornography viewing, suggesting these both increased over therapy. At follow-up, effects were positive ranging from small (masturbation), moderate (pornography viewing) to large (all except partner sex). Partner sex showed a large negative effect suggesting this had decreased from baseline to follow-up.

There were large positive effects for Jim on pornography viewing and distress, indicating these both reduced and these large effects were maintained at follow-up (SMD_{all} and $SMD_3 = 3.13$ and 1.43 , respectively). Masturbation and fantasy showed moderate positive effects while a large negative effect was seen for partner sex indicating this increased over therapy. Follow-up found a large positive effect for partner sex also (SMD_{all} and $SMD_3 = -2.91$) suggesting this increased further from baseline.

There were mostly small or moderate effects seen for Paul which may reflect the few data points available for him as he only attended three sessions of therapy. Small positive effects were seen for masturbation (SMD_{all} and $SMD_3 = 0.36$) and sexual fantasy (SMD_{all} and $SMD_3 = 0.20$) while small negative effects were seen for partner sex (SMD_{all} and $SMD_3 = -0.25$) and pornography viewing (SMD_{all} and $SMD_3 = -0.17$). There were moderate and negative effects seen for both internet sex and distress, and a large negative effect seen for public sex, suggesting this increased over therapy.

There were very large effects seen for Pita in terms of sexual fantasy ($SMD_{all} = 4.80$; $SMD_3 = 5.14$), partner sex ($SMD_3 = 1.83$), and distress ($SMD_{all} = 3.13$; $SMD_3 = 2.80$), suggesting these

increased. Small positive effects were seen for public sex and paid sex while a large negative effect was seen for pornography viewing and internet sex using both algorithms, although this became a small positive effect at follow-up, suggesting this reduced from baseline at follow-up albeit it to a small degree.

The effect sizes for Rick were positive and large for masturbation, pornography, fantasy, paid sex, and distress (SMD_3 range = 1.14 – 2.41), suggesting reductions to these towards the end of therapy, while there was a large and negative effect seen for partner sex (SMD_{all} = -0.24; SMD_3 = -4.32), indicating this had increased over therapy. Follow-up effect sizes were smaller, with partner sex becoming a large positive effect and indicating reduced partner sex, while distress becoming a moderate positive effect indicating distress was still reduced but not as much as at post-therapy.

Lastly, effect sizes for Saul were varied with the largest positive effect being seen for distress at post-therapy (SMD_{all} and SMD_3 = 3.31) and masturbation (SMD_{all} = 1.44; SMD_3 = 1.71). Small to moderate positive effects were seen for partner sex, public sex, sexual fantasy (indicating increases), and a small negative effect for paid sex. At follow-up, most effect sizes continued to be in the same interpretative range except effect sizes for distress were larger than at post-therapy (SMD_{all} and SMD_3 = 5.86) and partner sex had a large negative effect indicating this had reduced.

As already noted, effect sizes are not able to take into account the trend of the data and should be considered supplementary to the visual analysis which permits analysis of contextual information such as trend. An integration of visual analysis and effect size data will be considered later in results summary and discussion.

Treatment Adherence

The treatment adherence measure provided scores as noted in the method chapter and therapists could also provide written comments. Therapist comments pertained more to the reported client's goals and formulations of the presenting problem and progress in therapy, as well as comments to do with adherence to the IFT principles. Some identified that intimacy components had not been addressed due to earlier tasks of therapy having been the focus, such as containing the sexual behaviour and psychoeducation. This was reported for Tom, although in spite of the therapist not perceiving intimacy to have been a focus, his FIS scores reduced from pre- to post-therapy (93 to 57).

Other therapists indicated the opposite, that the behaviour had already been contained, either prior to participating in the study or during the baseline phase and self-monitoring, and the focus in these cases was more heavily on developing intimacy skills. This was the case for Dan, and, although he had low levels of sexual behaviour, he still had large increases in control over sexual behaviour, large reductions in negative consequences of sexual behaviour and distress, and from post-therapy to 3-month follow-up showed consistent gradual reductions in fear of intimacy (total scores of 115 to 97). One therapist indicated that historic sexual abuse required trauma resolution. The following quotes from the three therapists reflect in some way on treatment adherence.

"Client says he met goal and recognises there is more to do on maintaining/consolidating change but is unable to afford more therapy. Focus was on psychoeducation, cycle control, and relational intimacy skills only touched on."
(Tom)

"Client disclosed historical abuse and was transferred to ACC counselling system but completed 12 sessions for study." (Unidentified to preserve anonymity)

“Has had previous therapy but reported IFT was the therapy in which he could progress the most with establishing change and control over OCSB and improve his relationship. Therapy to continue at own cost. Referred to Alcohol and Other Drug for additional support.” (Matt)

“Participant had already found significant reduction in control of behaviour therefore focus had been less on behaviour control and more on addressing intimacy with self and other, and addressing relational issues.” (Dan)

“Relatively securely attached client who did not require extensive treatment. Made good use of 3 sessions and the weekly reporting heightened self-awareness and altered some of his behaviour in ways that left him feeling more comfortable about himself and oriented in a more life-enhancing direction.” (Paul)

“Client is highly motivated and will continue on in private therapy. Has clear goals in terms of attachment history and learning history in order to get a better understanding of why behaviour started.” (Pita)

“Aim of work was to complete an assessment and formulation to help client make sense of their behaviour. In addition, to use this insight to determine whether or not the behaviours were life enhancing or detracting and no further work was done beyond completion of these tasks (which occurred over three sessions).” (Saul)

To assess the degree to which therapists rated their adherence to IFT in their work with each participant, a form was developed for therapists to complete. Self-perceived adherence differs from adherence to treatment that is determined by an objective measure (e.g., video or audio recording and independent rater) and thus can be subjective or biased due to social desirability (Perepletichikova, 2011). Therefore the following information captures self-perceived adherence (SPA) rather than adherence per se.

As discussed in the method chapter, self-rating scores ranged from 0 - 10 with 10 being the highest SPA to IFT. Percentages were also calculated based on the items that were used in therapy. Table 8 shows that there was a large range in scores with most therapists rating their SPA to be either 8 or 9 out of 10, with a range of 33 – 88% over all participants. This indicates diversity in the amount of components that were considered relevant and also the degree to which they were covered in therapy. The SPA scores were considered in relation to outcomes for several participants in order to compare the degree of SPA and outcomes (e.g., whether those that adhered the most also produced the largest degree of change and vice versa). Eyeballing the SPA data and outcomes suggests that the level of SPA did not necessarily relate to outcomes for participants, as some with lower SPA ratings experienced a large reduction in fear of intimacy (e.g., Tom dropped from 97 to 57 at post-therapy) although others with a low rating experienced large increases in the same outcome measure (e.g., Rick went from 104 to 129 at 3-month follow-up). Participants were grouped according to largest, medium, or lowest SPA scores and each of these were discussed in terms of overall outcomes for one participant in each group.

Table 8

Therapists' self-reported adherence to IFT principles per participant

Participant	Therapist's self-rated score	Therapy adherence score	Percentage adherence
Sam	9/10	56/64	88%
Tom	9/10	40/84	48%
Bill	9/10	45/82	55%
Matt	9/10	46/82	56%
Dan	8/10	44/74	60%
Jim	8/10	50/80	63%
Paul	9/10	18/52	35%
Pita	9/10	47/82	57%
Saul	6/10	14/24	58%
Rick	8/10	22/66	33%

Note. Higher scores indicate higher perceived adherence to IFT Principles.

Largest adherence – Sam, Jim, and Dan

Therapists who rated their SPA to be over 60% were considered to have adhered to the largest degree, although there was a noticeable difference between adherence for Sam (88%) and the remainder in this group (range 60 – 65%). The participant outcomes are considered for whose therapist had given the highest IFT adherence in this group.

Sam's therapist rated their SPA to IFT at 88%. There was no outcome data available for Sam in terms of changes to control over sexual behaviour, negative consequences from sexual behaviour, or fear of intimacy, however his behavioural data shows a clear reduction in public sex, masturbation, pornography viewing, sexual fantasy, internet sex, and increases in partner sex, and he had the highest effect size of the group ($SMD_{all} = 17.16$; $SMD_3 = 18.07$, for sexual fantasy). His distress scores did not trend downwards over therapy however, and his effect size for this was large and negative, suggesting this increased from baseline. This suggests that the therapist's SPA related to outcomes in terms of reduced behaviour, but not level of distress about sexual behaviour, and the inability to link this also to post-therapy questionnaire scores makes this inconclusive in terms of whether a higher SPA related to increased control over sexual behaviour, reduced negative consequences, and a reduced fear of intimacy.

Medium adherence- Bill, Matt, Pita, Saul

Therapists who rated their SPA to be over 50% but less than 60% were considered to have adhered to a medium degree relative to the others. Three participants who were in this group were continuing with self-funded therapy beyond the post-treatment phase of the study (Bill, Matt, and Pita). Thus, therapists' SPA ratings may have been affected by this ongoing work which may have motivated a preference to select the lesser rating 'somewhat' rather than 'completely' in relation to how much they believe they implemented each step. The participant outcomes are considered for the participant whose therapist gave the medium SPA in this group as a snapshot view.

Pita's therapist rated their SPA to IFT to be 57%. Post-therapy scores for Pita indicated that fear of intimacy increased from baseline over all subsequent data collection stages while control over sexual behaviour increased and negative consequences from sex reduced. At the 3-month follow-up, these gains began to be lost although were still reduced from baseline. In terms of behaviour, sexual fantasy and distress about sexual behaviour reduced with a very large effect, and 'other' sexual behaviour ceased, and these results were maintained over follow-up. In Pita's case, he was continuing in self-funded therapy beyond the 12 sessions which occurred over the follow-up phase and so the continuing reductions to sexual fantasy, distress, and cessation of "other" sex could reflect ongoing treatment.

Lowest adherence – Tom, Rick, and Paul

Therapists who rated their SPA to be under 50% were considered to have adhered to IFT to the lowest degree relative to the others, and this ranged from 33 - 48%. The participant outcomes are considered for the participant whose therapist gave the lowest rating in this group.

Rick's therapist rated their SPA to IFT the least at just 33%. His post-therapy scores for fear of intimacy indicate that his score increased over each data collection point from baseline (104) to 3-month follow-up (129), indicating increased fear of intimacy. In contrast, his level of control over sexual behaviour increased and was maintained over follow-up, while negative consequences from sex reduced at post-therapy and slowly increased over each subsequent data point, although these remained reduced from that seen at baseline. His time-series graphs shows that his level of pornography viewing reduced to zero over therapy, which was a large effect, although increased at follow-up. Partner sex increased to a large degree at the end of therapy and continued over follow-up, while all other behaviours did not change. In spite of a low level of SPA to IFT, the behavioural components of treatment appeared to be effective while therapy was underway but this effect began to be lost once therapy ceased except for control over sexual behaviour. Fear of intimacy and an anxiety of closeness increased rather than decreased at

post-therapy and follow-up, suggesting that these changed in the opposite direction to what was hypothesised which may have reflected that low adherence to the intimacy components of the treatment resulted in changed sexual behaviour but not increases in feelings about closeness.

Clinical Significance

Clinical significance refers to whether or not an intervention made a real-world difference to the individual (e.g. “genuine, palpable, practical, and noticeable”), and can occur regardless of the level of change in symptoms (e.g., mild, moderate, large; Kazdin, 1999, p. 332). It is important to consider clinical significance in the current study, as information about participants’ identified therapy goals was not collected, therefore the sexual behaviour that was measured may not necessarily reflect behaviour the client was seeking help for. In the current study, clinical significance involves a consideration of both the psychometric and behavioural data changes across study phases, as well as therapist adherence and participant comments. While there were no cut-off scores for the psychometric measures to consider whether the scores changed from a clinical to non-clinical range, there were certainly reductions, and there were large reductions in distress about sex and various reductions to different elements of sexual behaviour.

While therapy goals were not recorded for the purpose of the current study, unsolicited information provided by some participants provided their explanations of reasons for seeking treatment as well as therapy goals, and indicate that participants generally reported that participating in the study and receiving therapy was beneficial to them, although one indicated that he felt further therapy was required. Consistent with the literature on OCSB, participants reported distress and impairment associated with their sexual behaviour, with impairment affecting their family or partner (Hentsch-Cowles & Brock, 2013; Manning, 2006b; Schneider, 2012). One individual indicated that simply monitoring and reporting their behaviour had been helpful, and others talked about sourcing supplementary aides such as support groups. The

following are quotes from participants that were considered to reflect in some way on clinical significance.

Pre-therapy:

“I have an addiction to porn. Think about other women unable to focus on just one.

One partner bores me due to watching so many videos of other women. Causes relationship problems. When drunk will seek sex with any woman at all. My goal is to stop watching porn which started age 14 and for past ten years estimates masturbating 15-20 times per week.” (Tom)

Tom’s self-identified goal of a reduction in porn viewing can be seen in his behavioural recording as his porn viewing reduced, although visual analysis showed some spikes over the duration of therapy, and he had a large positive effect indicating reduced porn viewing ($SMD_{all} = 4.29$; $SMD_3 = 4.73$). There were also large reductions to fear of intimacy seen for Tom (FIS score from 93 to 57 at post therapy). Unfortunately no follow-up data was available for Tom to ensure whether these changes were maintained.

“I have been battling with sex addiction for 6 years, (since I was diagnosed), and have had sobriety for almost 2 years with 3 major relapses. I do attend sex and love addict meetings (SLAA) in Auckland when I can, with only about 15 other men and women. We have estimated, in our own groups, that there are actually 80-90,000 sex and love addicts in Auckland alone. I am so keen for anything that can be done to promote awareness, acceptance, and most of all healing, especially for myself.” (Matt)

“I am concerned about the impact on my family. This is a condition that I have been dealing with for a number of years and I am very keen to find help, but until

reading your article had not been able to find support that was not linked to religious organisations.” (Pita)

“My aim in participating is to be able to share/confide in someone.” (Saul)

Half-way through treatment:

“Pretty good these days - no dangerous behaviours. Have become regretful of how bad things were in the past, how dysfunctionally I reacted to stress management and physical urges. Urges, drives, anxiety level controllable now. Greater mindfulness and inner understanding. Began using Yoga. Now have a more open relationship with fun communication. No longer high or low emotive discussions and more positive outlook. No longer seeking the thrill of porn, enjoying emotional equilibrium.” (Jim)

Jim described a greater sense of control over physical urges which is also reflected in his CSBI-Control scale score which increased from 35 – 53 at post-therapy to 63 at 3-month follow-up, which reflects a greater control over sexual behaviour (Coleman et al., 2001).

Post-therapy:

“Undertaking treatment for my intimacy problems has been invaluable. I no longer feel compelled to view porn. I can share my life with my partner. I am less anxious and more open and confident. Life is fun again although I’m still a bit of a perve.” (Jim)

“Now days I feel maybe 80% better but still at risk. My acting out has reduced both frequency and nature, and severity, however I don’t feel fully in control and only have some insight into cause and prevention.” (Rick)

Despite Rick not feeling like he was fully in control of his sexual behaviour, his CSBI-Control scale scores indicated greater control over sexual behaviour, having increased from 26 to 48 at post-therapy to 50 at follow-up, indicating continued gains were made after therapy ceased.

“Seeing the study published encouraged me to pursue assistance which I would not have otherwise.” (Bill)

“Weekly behaviour reporting has helped me to adjust my behaviours.” (Paul)

“I am more fidgety and prone to cycling. I have noticed a change in how I view things and how I used to view that particular thing as opposed to the "now". I think I am being more open-minded and able to let go some of what I thought I believed and start believing what I want to, if that makes sense.” (Matt)

"Thanks for opportunity to participate, I have really benefitted from it". (Pita)

Summary

Chapter five has presented the single-case analysis for the 10 participants in the current study. All participants benefitted from the intervention in that their control over sexual behaviour increased and overall level of distress and negative consequences from sexual behaviour reduced. In terms of intimacy and attachment, there were mixed results as to how the treatment affected these domains with no clear improvement to either intimacy or secure attachment seen across all participants, although dismissing attachment reduced somewhat for three participants while preoccupied attachment reduced somewhat for four. Fearful attachment showed minimal change.

There was idiosyncratic change across the frequency of sexual behaviour; although some behaviours reduced, some stayed the same, and others fluctuated. In part this was due to diversity in initial presentations of these behaviours across participants. Overall, the magnitude of

change was highest for sexual fantasy as well as pornography, indicating reductions to the duration of these behaviours were the most common and significant, but that was not the case for all participants. The degree of reductions in distress level was also very high for most participants.

Therapists delivering treatment identified vastly different components of IFT having been applied across participants, with some reporting largely behavioural interventions comprising the majority of treatment while intimacy components had not been the main focus. Participant outcomes did not necessarily relate to the degree of perceived adherence to IFT although the largest effect was seen for the individual with the highest therapist adherence.

Regardless of changes seen across the self-rated and formal measures used in the current study, participants reported benefiting from therapy and identified improvements to their everyday life, particular to level of control over sex, and their relationships and family. One individual (Rick) identified that he needed more therapy to fully understand and cease his OCSB, which reflects the possibility that 12 sessions of IFT may not be an effective dose for all individuals seeking assistance. These findings will now be discussed and related to the clinical literature to form a conclusion of the preliminary effectiveness of IFT for men with OCSB.

CHAPTER SIX: DISCUSSION

Despite the limitations to the current outcome research, the study investigators are to be commended for their pioneering efforts in a field where funding is scarce and much of the work is exploratory. Looking forward, however, if the field is to benefit from empirically supported treatments, future studies will need to raise the bar on the quality of outcome research among hypersexual patients. (Reid, 2013, pp.15)

Outline and Aims

This chapter summarises the findings of the present study, which evaluated the effectiveness of STNZ's Intimacy Focused Therapy (IFT; Salisbury, 2008), a treatment for men with OCSB. In relation to the research questions and hypotheses, these findings will be linked to current literature and the limitations of this study will be explored. The implications of these findings for clinical research and practice will be discussed and recommendations for future research suggested.

Summary of the Findings

The objective of the study involved using a multiple-baseline single-case design to demonstrate whether IFT was an effective treatment for men with OCSB. This was to be determined by whether treatment reduced problematic sexual behaviour and related distress and negative consequences, insecure attachment, and increased control over sexual behaviour, secure attachment and the capacity for intimacy. Ten men participated in twelve one-hour long therapy sessions, with the exception of Paul and Saul who each had only three sessions, and therapy was guided by the STNZ IFT Principles document in an individualised format to reflect the diverse needs of each participant. Weekly behavioural reporting and pre-, post-, and follow-up questionnaires demonstrated considerable but diverse changes on outcome measures over the course of therapy for each participant.

Overall, control over sexual behaviour increased (CSBI) and negative consequences and distress from sexual behaviour reduced (CSBCS) post-therapy, and these changes were largely maintained at follow-up for all participants. Less clear were results for intimacy which did not form an overall pattern of change at post-therapy. Although fear of intimacy reduced for several participants at follow-up, the reductions were small and there was little further change from the end of therapy to follow-up. Additionally, fear of intimacy increased for several participants at post-therapy and follow-up. These findings do not support the hypothesis that intimacy would increase for participants.

The results for attachment were also not as striking as that seen for the CSBI and CSBCS. The hypothesis that secure attachment would increase post-therapy was not supported. Dismissing attachment reduced somewhat for six participants although only modestly, and this reduction continued over follow-up particularly for three participants, suggesting less avoidance of closeness. Fearful attachment showed no change post-therapy or follow-up, while preoccupied attachment reduced somewhat over follow-up for four participants, indicating reduced anxiety about closeness. These findings also offer mixed support for the hypothesis that insecure attachment would reduce, as it did in the case of dismissing and preoccupied attachment for some, however fearful attachment did not change.

Sexual behaviour frequency and duration also did not show a consistent pattern of change over therapy, but instead showed diversity both within and between participants, which perhaps reflected the personal goals set individually within their therapy process. The hypothesis that these would reduce post-therapy was not necessarily supported although there were reductions seen for most people on masturbation frequency, as well as reductions on sexual fantasy or pornography viewing duration for many, as well as increases in partner sex for some. A consideration of sexual behaviour alongside level of distress demonstrated a pattern for distress scores to relate to sexual behaviour frequency or duration, although this was not always the case.

Before discussing these findings in more depth, it is necessary to preface the discussion with a consideration of baseline stability.

Baseline Stability

The stability of baseline data must first be discussed, as stable baselines are the pre-requisite for single-case design results to be considered accurate (Blampied et al., 1996; Franklin et al., 1996; Kazdin, 2003). Intervention data is contrasted with baseline data to show whether changes occurred post-intervention, and this requires the behaviour to be relatively constant for a period of time prior to the intervention (Kazdin, 2003). In the current study, baseline data were collected for sexual behaviour but not for the psychometric measures which were administered at single time points. Stable baselines were largely obtained for self-reported distress; however, this was less apparent for sexual behaviour, especially duration in hours.

In terms of unstable baselines, downward slopes may reflect the Hawthorne Effect whereby simply measuring and reporting behaviour can lead to behaviour change (Adair, 1984). Upward slopes may indicate the anxiety-provoking effects of anticipating behaviour change and engaging in therapy, as well as paying more attention to one's own sexual behaviour which may increase as an artefact of vigilance to sexual monitoring and subsequent arousal (Barlow, Sakheim, & Beck, 1983; Chambless, Tran, & Glass, 1997).

The only previous single-case design study conducted in the area of OCSB treatment, which was specific to hours spent viewing online pornography, reported that behaviours were "steady" over a 1-7 week baseline phase (Twohig & Crosby, 2010, p. 291). However, on closer inspection, there was also variety in the hours each participant viewed per day, with one participant's time fluctuating between 0 – 2 hours per day and another 0 – 3 hours, indicating less than ideal stability (Twohig & Crosby, 2010). This shows that daily pornography viewing time

ranged from none to three hours although does not include other features that were likely to be occurring, such as time spent fantasising about sex or masturbation while viewing.

Other treatment outcome studies have not reported any monitoring of sexual behaviours on a regular basis prior to treatment, even those using case-study methodologies. For example, one case study of a man with sexually addictive behaviour reported he had seven sexual partners per week and four hours of internet use per day (using the internet to locate sexual partners) that was described as 'consistent'. However, the timeframe over which this was deemed to be consistent or the method for capturing these behaviours was not reported, so it is not known how consistent the behaviours were pre-treatment (Shepherd, 2009). Another study examining group treatment for compulsive sexual behaviour compared pre- and post-group therapy sexual behaviours (e.g., number of different sexual partners in the past five years) but did not describe the frequency of behaviour in the sample, so it is unknown whether there was variety in the frequency of these behaviours either between individuals or for each individual (Qualand, 1985).

The variety seen in Twohig and Crosby's (2010) study as well as the current study corroborates the difficulties in the literature with defining OCSB according to frequency and duration of behaviour, and raises the question of whether such a definition could or should exist. OCSB may not be inherently stable and may be subject to as much variety between individuals as it is within the same individual, depending on other factors. This is supported by a comment made by Paul, who had an unstable baseline due to low scores during one week which he explained was due to being unwell and therefore reducing his sexual behaviour and associated distress. Thus, while baselines were unstable for some individuals in the current study, particularly for duration of sexual behaviours, the single-case design was able to accurately capture changes over the phases of the study by focusing on results where stable baselines were obtained and treatment effects could be determined (Kratochwill et al., 2010). The following

discussion gives the most weight to those with adequate baseline stability, with an additional discussion of those without, in order to address the research hypotheses.

Hypothesis 1: OCSB-related distress and negative consequences will reduce at post-therapy and follow-up

The first hypothesis was addressed using the ratings for distress about sexual behaviour and the Compulsive Sexual Behaviour Consequences Scale (CSBCS; Muench et al., 2007). Results clearly showed reductions in distress relating to sexual behaviour at post-treatment, with more than the requisite three replications required to show a treatment effect (Kratochwill et al., 2010). There were large positive effects found for distress for seven of the 10 participants (five had stable baselines) at both post-treatment (SMD_{all} range = .81 – 3.95; SMD_3 range = 1.28 – 4.21) and follow-up (SMD_{all} and SMD_3 range = 1.67 – 5.86), indicating that the magnitude of these changes was large and was maintained post-therapy for at least three months.

Negative effects at post-therapy were seen for the three remaining participants and were large for Sam and Bill (SMD_{all} = -.81, SMD_3 = -1.28; SMD_{all} = -3.83, SMD_3 = -4.10, respectively) and moderate for Paul (who had an unstable baseline; SMD_{all} and SMD_3 = -0.43), indicating that distress related to sexual behaviour had increased over therapy. Paul's small effect may have been affected by having a small data set due to only completing three treatment sessions. In order for an intervention effect to be seen, it is recommended that at least five data points are obtained (Kratochwill et al., 2010). In addition, Paul's baseline stability was affected by self-reported illness reducing sexual behaviour and subsequent distress about sexual behaviour.

For Bill, the only one of these three to complete follow-up data, this effect reduced to a small negative effect (SMD_{all} and SMD_3 = -0.23), reflecting that distress pertaining to sexual behaviour had reduced by follow-up, although this was still an increase from baseline. This is interpreted in the context of visual analysis of the trend of his distress data. This showed distress

to be relatively low over baseline but to trend upwards over the first half of therapy, and then downwards over the second half and follow-up phase, indicating consistent reductions from half-way in therapy onwards.

As well as distress reducing, the results for the CSBCS, obtained for 10 participants, showed that there were substantial reductions for all participants from baseline (range = 20 - 60) to post-therapy (range = 1 - 22), indicating that less negative consequences from sexual behaviour were being experienced by these participants. These findings are similar to that reported by Muench et al. (2007), who found significant mean CSBCS reductions from 30.73 (SD = 12.94) to 22.17 (SD = 12.41) in a sample of 28 homosexual men after three months of citalopram treatment. These changes were also largely maintained for the six participants who completed follow-up, with the CSBCS 3-month follow-up data range being 1 - 23. There was some evidence of this result beginning to fall away for two participants between post-therapy and the final follow-up (Rick and Pita), however this was only slight and still represented less negative consequences experienced from sexual behaviour than that found at baseline.

Hypothesis 2: Problematic sexual behaviour frequency and duration will reduce at post-therapy and follow-up

It was hypothesised that 'problematic' sexual behaviour frequency and duration would reduce. Two reviews of methods for measuring OCSB recommended the measurement of behavioural symptoms of OCSB (Hook et al., 2010; Womack et al., 2013). While sexual behaviour was not specifically asked about in relation to whether it was considered to be problematic or not, the data analysis aimed to explore the level of various sexual activities in relation to distress and impairment (Zoldbrod, 1998).

While overall, certain behaviours did reduce, there were others that did not, and there was no clear pattern of change. There was a tendency for several participants' baselines to be

unstable, particularly for duration of variable sexual behaviours and especially for masturbation and fantasy. As noted, where behaviour trended down over baseline, it may have reflected the therapeutic effects of instilling hope, reduced distress, or the Hawthorne effect where simply monitoring behaviour can lead to behavioural change (Adair, 1984). Where it trended up may indicate the anxiety-provoking effects of engaging in therapy, as well as paying more attention to one's own sexual behaviour which can possibly increase sexual arousal (Barlow et al., 1983; Chambless et al., 1997). Results for the second hypothesis need to be interpreted in this context, although the focus was on participants where stable baselines were seen.

Frequency of Sexual Behaviour

Stable baselines were seen for eight of the ten participants who provided behavioural data for this analysis. There were clear reductions in terms of the frequency of some sexual behaviours. The most notable behaviour frequency that changed in frequency was masturbation, although for one participant, Dan, this remained constant across all phases of the study. This may have indicated this was not causing distress for him, as although this behaviour did not change, his distress level reduced consistently when treatment began. For Sam, Matt, Paul, Pita, and Rick, increases in partner sex over therapy coincided with a reduction in masturbation which may suggest a relationship between improvements in intimacy over therapy leading to increased partner sex, which may or may not be a preferred choice to masturbation.

There was a pattern for the frequency of sexual behaviour to coincide with level of reported distress pertaining to sexual behaviour, which makes intuitive sense given that distress was being monitored in relation to sexual behaviour rather than general distress. For example, Tom, Bill, Matt, and Rick reported distress levels that tended to coincide with their frequency of sexual behaviour, particularly for masturbation, with greater distress coinciding with more frequent masturbation. This suggests either pure coincidence or that the behaviours being monitored that fluctuated with distress level tended to be those that fell under the umbrella of OCSB for that

individual. Alternatively, it could have been that distress about other features of sexual behaviour correlated with increased incidences of masturbating, for example, the content of sexual fantasy before masturbating, which was not captured in the current study.

Duration of Sexual Behaviour

There were only stable baselines for four participants when it came to their sexual behaviour duration and the remaining participants showed downward trends, with an upward trend for sexual fantasy and pornography for Sam and Paul. There were reductions in the duration of time spent engaging in pornography viewing, sexual fantasy, internet sex, and 'other' sexual behaviour, which encompassed a range of other behaviours including receiving Thai massage, participating in group sex, and watching pornography in a sex shop, and only one participant reported these (Pita).

For the six participants who experienced instability in the duration of their sexual behaviour over baseline, the ability to draw conclusions about the effect of onset of therapy on sexual behaviour was limited. However, while sexual behaviour duration reduced for four of these participants (and frequency for some), it is interesting to note that their level of distress about their sexual behaviour did not reduce, which conversely was seen in participants with mostly high and stable distress at baseline. The exception to this was Dan whose distress dropped over baseline, which coincided with a large reduction in the duration of his sexual behaviour, Pita whose distress dropped alongside reduced time spent fantasising about sex, and Paul who identified being ill over baseline as reducing his sexual behaviour duration, frequency, and distress.

There were a variety of effect sizes in relation to the frequency and duration of sexual behaviour. Large positive effects were seen particularly for masturbation, pornography, sexual fantasy, internet sex, and distress, suggesting large reductions in these variability for most individuals. Large negative effects were evident for four participants in their rate of partner sex,

indicating an increase in partner sex post-therapy. The tendency for the SMD_3 effect size algorithms to be larger than SMD_{all} indicated a greater reduction in behaviour towards the end of therapy as opposed to over the duration of therapy, although this did not occur unanimously, as in some instances a resurgence of baseline or early treatment levels of sexual behaviour occurred towards the end of therapy. Effect sizes from post-therapy to follow-up generally continued in the same direction that they did from baseline to post-therapy, with positive effects still seen for masturbation, pornography and sexual fantasy, although these tended to have more variability at this point.

In contrast to the variety in reductions in the frequency and duration of sexual behaviour, the Compulsive Sexual Behaviour Inventory – Control Scale findings were unanimous (Coleman et al, 2001). CSBI-Control scores unequivocally increased for all participants post-therapy, indicating that an improved level of control over sexual behaviour was obtained for all. This finding offers support for the term OCSB, which by its definition suggests a perceived difficulty in controlling some elements of sexual behaviour (Reid & Woolley, 2006). Further increases to the level of control over sexual behaviour was seen at 1-month follow-up, suggesting that treatment gains were not only were sustained but also continued post-therapy for this period of time. The 3-month follow-up indicated that control over sexual behaviour was improved more than at pre-therapy, although was somewhat reduced for two participants suggesting this effect was dissipating for some. A comparison of the post-therapy to 3-month follow-up found that control over sexual behaviour was indeed less at follow-up except for Jim who continued to make gains.

The findings regarding frequency and control of sexual behaviour, together with a general reduced level of distress about sexual behaviour and negative consequences experienced, support the hypothesis that ‘problematic’ sexual behaviour frequency would reduce over therapy, however not so much in terms of the duration of sexual behaviour which had more varied results, and suggest that future research should focus on control, distress and impairment rather than

quantity or duration of sexual behaviour (Reid & Woolley, 2006). Alternatively, future research could focus on monitoring clients own targeted behaviours rather than their sexual behaviour per se.

Questions that were raised from these findings pertain to the individual goals of therapy each participant had and what they considered to have been an effective outcome. According to the unsolicited supplementary information, there were diverse goals suggested by both therapists and participants, and comments suggest that these goals had been met for some individuals. For example, Saul's therapist said his goal had been assessment and formulation, which was why the therapy ended at three sessions, while Saul perceived his goal to have been to "share and confide". Tom and his therapist stated their goal was to increase control over his pornography use, with the therapist saying there was less of a focus on developing intimacy, although Tom's fear of intimacy scores were the most improved at post-therapy (93 – 57). Behavioural scores suggest control over pornography did occur over the first half of therapy; however over the second half his viewing made a resurgence, suggesting less control over this time. Reduced pornography viewing was also the goal reported by Jim, who stated he had reduced his pornography use and "gained emotional balance" post-therapy, although his scores indicated low levels of pornography viewing was occurring at baseline as well as over therapy. This supports another study's suggestion that the length of time spent engaged in sexual behaviour is perhaps less important to determining a problem than other factors such as distress about the behaviour (Långström & Hanson, 2006).

Dan's therapist said the opposite, that behavioural change had been made over the period of self-monitoring over baseline (which his scores clearly supports) and that developing intimacy skills was the focus of treatment. Matt reported a desire to promote healing to himself and others (as a result of participating in research that might help develop the treatment field). Rick did not mention his goal specifically but reported a sense of being only "80% better", although his

outcome scores suggest he improved substantially in terms of control. One other goal that was mentioned came from Pita who had sought treatment not attached to religious beliefs. He aimed to reduce the impact of his use on his family which appear to have been met according the CSBCS reductions post-therapy, which included negative impacts on family or relationships (30 – 8).

In addition to having limited data on participant goals and how outcomes aligned with goals, the role of content of sexual behaviours was overlooked, such as the content of sexual fantasy or pornography imagery and whether changes to the type of fantasy or imagery made an impact on level of distress about sexual behaviour. While these were likely covered within the confines of therapy as part of IFT, they have not been captured by the current study and should be included in further research.

The reason for this relates to the literature on the definition for OCSB which posits that it is the distress or impairment resulting from sex that determines the presence or absence of a problem rather than the quantity or frequency (Långström & Hanson, 2006; Reid & Woolley, 2006). Also, the details of the sexual behaviour the men were seeking help for was not identified, and this limits the understanding that can be extrapolated from the data collected on frequency or duration. For example, whether partner sex was with multiple partners or within a primary relationship was not collected but may have been clinically relevant although the frequency of partner sex may not have changed. A high level of sex with a stable partner has been associated with improved psychological and psychosocial functioning, while high frequencies of impersonal sex has been related to problematic psychological and psychosocial functioning (Långström & Hanson, 2006). Thus, increases in partner sex may or may not have been associated with perceived problems or improvements for an individual. As individual goals were not collected each participant's therapy goals may or may not have included particular behaviour reductions.

Hypothesis 3: Intimacy will increase over therapy and be maintained over 3-month follow-up

The results for the Fear of Intimacy Scale (FIS; Descuter, & Thelen, 1991), which were obtained for 10 participants, showed a less clear pattern of change from pre-therapy to post-therapy than that found for the CSBCS and CSBI. While FIS scores did appear to reduce somewhat for several of the participants, this was only slight, with just one appearing to reduce their fear of intimacy substantially (Tom). These findings continued for the six participants completing follow-up data, with most scores increasing, although two participants had reduced scores at 3-month follow-up as well as when comparing post-therapy to the 3-month follow-up (Jim and Saul). The hypothesis that the capacity for intimacy would increase over therapy has partial support, which may indicate either that IFT does not increase intimacy, that 12 sessions of IFT was not enough to increase intimacy for all types of OCSB, or that the measure utilised was unable to fully capture the changes to capacity for intimacy as per IFT given that it was a measure of 'fear of intimacy'. These ideas will be further discussed later in this chapter.

Hypothesis 4: Insecure attachment will reduce and secure attachment increase over therapy and be maintained at 3-month follow-up

The four attachment subscales produced the most equivocal results in the current study. Secure attachment, which was hypothesised to increase, did not change for most participants from baseline (range 1.60 – 3.60) to post-therapy (range 2.20 – 3.00), although small increases were seen for Pita and Saul, which were maintained over follow-up. A comparison of post-therapy to 3-month follow-up indicated little change except for Jim, whose secure attachment scores reduced suggesting a reduced comfort with closeness. Overall, these findings suggest that an increased comfort with closeness did not occur for most participants, and that this hypothesis was not supported except for two participants to a small degree.

Dismissing attachment showed the most noticeable change of the attachment subscales, with six participants' scores reducing from baseline (2.80 – 4.20) to post-therapy (2.00 – 3.60), although these changes were only modest. Post-therapy to 1-month and 3-month follow-up indicates that these changes were maintained. A comparison of post-therapy to 3-month follow-up data showed that dismissing attachment scores reduced further over this phase for three participants, with the remainder sitting just above the line of no change in the modified Brinley plots. This partially supports the hypothesis that insecure attachment would reduce in terms of dismissing attachment, indicating a reduced avoidance of closeness.

In contrast, preoccupied attachment clustered around the line of no change indicating minimal change from baseline (1.25 – 3.00) to post-therapy (1.75 – 3.00). The scores from post-therapy to 1-month follow-up showed reductions for several participants which continued at 3-month follow-up. A comparison of post-therapy to 3-month follow-up results showed limited change over this time according to the modified Brinley plots. This finding also partially supports the hypothesis that insecure attachment would reduce in terms of preoccupied attachment, reflecting a reduction in anxiety about closeness for some but not all participants over follow-up only.

Fearful attachment, which represents fluctuations between anxiety and avoidance of closeness, showed limited change from baseline to post-therapy or follow-up. A comparison of baseline to 1-month follow-up, and baseline to 3-month follow-up, showed that half the participants' scores increased while half decreased, although both only minimally, indicating change in both directions. Post-therapy to 3-month follow-up showed no further change. This does not support the hypothesis that fearful attachment would reduce as a result of IFT.

Adult attachment is a dynamic phenomenon and these results, taken from one self-report measure of attachment, should be interpreted cautiously given the literature about limitations of

self-report methods to capture attachment style in action (e.g., at times of activation; Kurdek, 2002; Ravitz et al., 2010). These findings tentatively suggest that the current study did not find increased secure attachment and that there was only partial support for the hypothesis that insecure attachment would reduce, and only in relation to dismissing and preoccupied attachment to a small degree for some participants. These mixed findings will now be discussed.

Interpretations and Implications

This section discusses the findings in the context of the OCSB literature as well as the literature on attachment and intimacy deficits in OCSB.

Definition of OCSB

The majority of clinical literature around ‘problematic’ sexual behaviour focuses on how best to describe and define it and there continues to be a lack of agreement in this area (Reid, 2013). The current study was not focused on this issue as it was seen as more advantageous to contribute to the research base on evaluating therapy approaches that help people who present for treatment of sexual behaviour problems. In saying that, an interim term and definition was required in order to pursue this goal. The use of the term OCSB was selected based on recent nosological literature which recommends a focus on the absence of control and presence of distress and/or impairment relating to sexual behaviour (Hook et al., 2010; Reid & Woolley, 2006).

The overall findings of the current study support aspects of Reid and Woolley’s (2006) definition of OCSB that emphasise control, distress, and impairment. Participants were all considerably distressed, experiencing reduced control over their sexual behaviour, and were experiencing many negative consequences relating to their sexual behaviour. As control of sexual behaviour increased post-therapy, distress and negative consequences reduced. What is interesting here is that the actual sexual frequency or duration of sexual behaviour did not

necessarily have to reduce in order for these features of OCSB to change, which supports growing literature that argues that it is not sexual behaviour frequency or amount per se that constitutes a problem (Långström & Hanson, 2006; Twohig & Crosby, 2010). As the current study did not capture specific details pertaining to the therapy goals that participants had, other than unsolicited information from therapists and participants, or information about the types of sexual behaviour being monitored, such as the content of pornography or nature of the partners reported in partner sex, this is an area that future research should consider.

In terms of distress relating to sexual behaviour, for most participants, their level of distress about sexual behaviour trended down as therapy progressed but there was individual variation in this pattern. For some, distress increased initially which may have reflected that they were exposed to their behaviour more fully as they shared their experience with their therapist (Orzack et al., 2006). For some, their distress increased at certain other points over the course of therapy. This may have related to delving into particular new aspects of their behaviour during particular treatment components or lapsing into problematic sexual behaviour (Bancroft, 2008). For some, the level of OCSB-related distress stayed the same when therapy had finished, for others it continued to trend down, and for others trended upwards slightly. This could indicate that, while the short-term nature of therapy for some was enough to set them on a path to continue to make gains, for others more time engaged in longer-term work might have been necessary, such as Rick, who reported feeling “80% better” but requiring more input, which coincided with his distress ratings increasing towards the end of the follow-up phase. Additionally, Saul may have benefited from longer-term therapy. His goal was to share or confide in someone and he completed only three sessions, however at follow-up his distress had trended back up.

Comparisons with Existing Treatment Outcome Research

The current study is novel in both the type of measurement used as well as the therapy approach being evaluated, which makes comparisons with existing treatment outcome studies

difficult. The closest study in terms of methodology was Twohig and Crosby's (2006) study, which also used a multiple-baseline design, and used Acceptance and Commitment Therapy to target internet pornography viewing for six participants. Internet pornography viewing reduced by 85% and was largely maintained at follow-up (83%). The current study also found that reductions occurred in pornography viewing, with several extremely large positive effects found at post-therapy for seven participants (SMDall range = -3.37 – 9.26; SMD₃ range = -3.15 – 8.46), and positive effects for all six participants who completed follow-up (SMDall and SMD₃ range = 0.16 – 8.07).

Two participants showed a negative treatment effect on their pornography viewing, with one reaching a small positive effect at follow-up and one not completing follow-up data. It is of interest that Twohig and Crosby's (2006) study differed from the current study in that it had a narrow focus specifically on internet pornography viewing where participants aimed to reduce their viewing. In the current study, participant goals for therapy were not specifically elicited, therefore it is unknown if pornography viewing was a target of therapy for all. Comments made by Jim and Tom (see page 147/148) indicated that pornography viewing had been at least part of their therapy goals. No effect sizes were reported by Twohig and Crosby, however, were calculated by the researcher which also revealed relatively high positive effects although these ranged from no effect to large effects (SMDall range = -0.01 – 2.94).

Other outcome studies have used different definitions of problematic sexual behaviour (e.g., sexual compulsivity; sexual addiction) which may be the same as OCSB or may be subgroups within the broad umbrella of OCSB, and therefore may be different constructs (Bancroft & Vukadinovic, 2004). There are similarities and differences in the multiple definitions used in the literature and a recent review of the measurement of OCSB states that these have not yet been consolidated (Womack et al., 2013). Also, most previous treatment outcome studies have used group methodologies rather than a case-based approach as was used in the current

study. For example, one study involving a sample of men who identified as gay or bisexual used behavioural reporting to monitor 'compulsive sexual behaviour' and found large reductions in the mean number of sexual partners over the past three months from pre-group therapy (11.5) to post group-therapy (3.3; Qualand, 1985). The number of sexual partners was not captured in the current study but would have been useful information to have, particularly as partner sex increased in the current study but there was no detail captured about whether this was with one person or multiple people, which may or may not have been clinically relevant, particularly as high rates of sex with an intimate partner has been associated with improved psychological wellbeing rather than detrimental effects (Långström & Hanson, 2006).

The issue of relapse is important to consider in determining the longevity of the effectiveness of IFT. The rate of relapse of OCSB in the current study is difficult to gauge particularly as participant goals were not known. In accordance with Reid and Woolley's (2006) definition, relapse could be represented by a decline from post-therapy on the distress ratings, and CSBI-Control scale, and increases in CSBCS scores. The deterioration in these scores over the follow-up phase do appear to be low, although some participants had mild increases in negative consequences to do with sex, mild reductions in their control over sex, and a slight increase in distress level occurred for three of the seven participants who completed distress data at follow-up.

Relapse in OCSB is hard to pinpoint due to the already noted difficulties in identifying what behaviours actually are problematic. Previous treatment outcome studies that considered relapse rates defined relapse in different ways and find varying results which relate to the specific measures used to capture OCSB. For example, a 71% return to 'sexual addiction' was found in one study looking retrospectively at clients who attended a 28-day residential group treatment that was run within a broader substance use disorder facility (Wan et al., 2000). OCSB in these clients was co-morbid with substance use disorders which were suggested to possibly account

for the high relapse rate and it was also suggested that 'sex addiction' treatment may simply require more time in order to have longevity of effects (Wan et al., 2000). In contrast to this, a study investigating an individualised ACT treatment for OCSB, for men with 'problematic internet viewing' found that changes at post-treatment (83%) were largely maintained at three-month follow-up (81%). In this case, the treatment focus was specific to pornography viewing rather than other types of sexual behaviour that may or may not also have been problematic, and relapse could be clearly identified as a return towards baseline level of pornography viewing.

There are limited studies examining treatment outcome over a longer period of time, such as 6-12 months or longer, to determine the longer-term treatment effects. One study examined 6-month outcomes and found significant reductions on conflict, shame, and remorse relating to sexual behaviour (Klontz et al., 2005). In this study the effect was only small ($n^2 = .21$) and features such as impairment and control were not measured (Klontz et al., 2005).

Intimacy and attachment theory relating to OCSB

Intimacy Focused Therapy was developed on a theoretical foundation that insecure attachment and deficits in the capacity for intimacy, which develop via early attachment experiences, may cause and maintain OCSB (Salisbury, 2008). There is much in the literature around the relationship between insecure attachment and suboptimal adult psychological and sexual wellbeing, although most of the research to date is correlational (Bogaert & Sadava, Faisandier et al., 2013; Gentzler & Kerns, 2004; Hudson-Allez, 2009; Mikulincer & Goodman, 2006; Ward et al., 1996). However, the few longitudinal studies to date support a causal understanding of attachment problems in infancy preceding the development of a reduced capacity for intimacy and increased problematic sexual behaviour over childhood and early adulthood (Collins & Sroufe, 1999; Sroufe, 2005).

The current findings offer mixed support for this theoretical foundation for treating OCSB. Firstly, there were clearly high scores on the FIS that are higher than that found in clinical

research with 'normal' adults, which supports the notion of intimacy deficits being high in this group of men with OCSB (Descuter & Thelen, 1991; Doi & Thelen, 1993). There are no norms available for the FIS, however, the mean FIS score in a previous community study ($N = 171$) of 83 men and 88 women was 79.58 ($SD = 21.57$), with no significant gender differences found (Doi & Thelen, 1993). The range in the current study was 46 to 118 with a mean of 94.25 ($SD = 20.79$), which would likely have been higher if item 25 of the FIS had not been accidentally omitted. Additionally, the participant with the lowest score (John) dropped out of the study and was excluded, in which case the range would be 72 – 118 and the mean 98.64 ($SD = 14.88$). In this case, all participants except one (Stu) scored well over Doi and Thelen's average score for 'normal adults', indicating a high fear of intimacy for men in the study. However, the FIS has several issues which will be discussed further in limitations, as this may not be an accurate measure of developing the capacity for intimacy.

In terms of attachment, the Brinley plots indicated that pre-therapy scores on the secure attachment domain ranged from low to high across participants. Dismissing attachment scores were more clustered and relatively higher than both fearful and preoccupied attachment scores which were lower and more dispersed, indicating greater variety in these domains. Dismissing and preoccupied attachment both reduced for some participants to a small degree, while fearful attachment showed no change by the end of follow-up. Secure attachment improved for one participant initially, showed no change for the remainder, and reduced for one at post-therapy and three-month follow-up.

The results for insecure attachment in the current study require further discussion. Dismissing and preoccupied attachment are at opposite ends of the anxiety and avoidance dimensions in that dismissing attachment represents reduced avoidance of closeness and preoccupied attachment represents increased anxiety around closeness (Bartholomew & Horowitz, 1991). This suggests that some people began to be less avoidant of closeness and

either the same amount or more anxious about closeness. It is possible that as therapy progressed, while participants were not endorsing that secure attachment increased, they did endorse that insecure attachment reduced in terms of behavioural avoidance as increasing the capacity for intimacy involves reducing avoidance of closeness. Simultaneously, anxiety about closeness may have not reduced due to elements of the treatment that focus on building intimacy, which may be anxiety provoking for individuals who have not attempted such experiences before. In other words, as participants exposed themselves to developing closeness some may have felt more anxious about it than when they were avoiding closeness. These findings do not explain the lack of notable changes on fearful attachment, which is meant to reflect fluctuations between anxiety and avoidance of closeness. These findings are affected by the use of the RSQ which will be discussed further shortly.

Limitations

There are several limitations of the current study which relate to the research design, treatment adherence, and assessment measures.

Research Design

The first limitation pertains to the individuals who participated in the study who were mostly New Zealand European men who were motivated to seek treatment, generally well educated, and earning a high income. They were self-selected with a variety of presentations and goals. Therefore, it is not clear whether IFT in its current form would be effective for a wider population of individuals affected by OCSB, such as women, people of diverse ethnicity, those under age 18, and of a wider range of socioeconomic status and education. In these instances, further adaptations to the therapy's delivery might be necessary that are not currently taken into account in the STNZ IFT Principles and any further research should consider this. IFT in its very nature is tailored to the individual and so further analysis of its application with others experiencing OCSB

will inform how effective it is with a wider range of individuals. Potentially a more narrow focus would initially be of use, where the focus is on different populations such as women, those under 18, and within different cultural or ethnic groups, or with specific forms of OCSB such as pornography viewing only.

A threat to the internal validity of the single-case design used in the current study is that baseline data was not always stable prior to beginning the intervention point (Blampied et al., 1996; Kazdin, 2003). This was attempted to be controlled for as much as possible by giving the most weight to those with stable baselines in order to address the research hypotheses. For those with unstable baselines, upward trends were not as much a threat as downwards trends, because an upward trend indicates that the sexual behaviour has increased (Richards et al., 2014). In contrast, downward trends indicate sexual behaviour reductions prior to the onset of the intervention, suggesting that factors other than IFT, such as self-monitoring, may have accounted for the change (Adair, 1984). However, while sexual behaviour may have trended down over baseline for some participants, their distress about sexual behaviour did not necessarily trend down simultaneously, indicating that, although behaviour itself may have been suppressed or managed through self-monitoring, distress pertaining to sexual thoughts, feelings, or behaviours remained. Thus, distress scores were the most clearly impacted by onset of treatment which is in line with the use of distress as one of the key indicators of the presence of OCSB, rather than the frequency or type of behaviour occurring (Långström & Hanson, 2006).

Another feature of the research design that limited the current study is to do with the choice of methodology. In this study, single-case design did not isolate specific parts of IFT that were effective (Watson & Workman, 1981). Similarly, the inability to know which aspects of IFT were effective could be seen as problematic, however the aim of the study was not to investigate IFT to this level as it was exploratory research. The therapist adherence findings suggest different rates of adherence to IFT which indicate that different components were used for different individuals in

the study, which is how IFT is designed to be delivered. However, this does limit the conclusions drawn from the outcomes, as potentially there are different elements within IFT that are effective as well as different ways of delivering them between therapists. Future research that builds on the current study would benefit from drilling down into IFT further to understand which elements, under which circumstances, are effective for which people, in what quantities, and with what types of OCSB.

For example, in the instances where treatment was brief, therapy still had a good outcome in terms of client goals and outcome measures (e.g., Saul). Therapists identified the possibility that insecure attachment was not present and thus more of a behavioural and psychoeducational focus was all that was required in these cases. The opportunity to share and confide appeared valuable and clinically significant. Where insecure attachment is not present, this level of intervention, or even online psychoeducation could potentially be sufficient. Another example was that monitoring sexual behaviour seemed to reduce behaviour prior to baseline starting for some individuals. Such a simple and free intervention shows possibility as a method of assisting motivated individuals with altering sexual behaviour in some instances, although does not necessarily affect distress level, negative consequences, or control over sexual behaviour.

Procedure

Other limitations are to do with the procedure used to carry out the study. An overarching limitation here pertains to the possibility of bias towards IFT being seen as effective. The current study was developed with STNZ and, as such, there was a vested interest in the therapy being evaluated. The therapists likely wanted IFT to have been seen to be effective as it reflected on their own practise as well as their company, STNZ. This may have affected their performance in delivering treatment, as they may have worked extra hard, put more time into clients being evaluated, and given a more positive appraisal of their adherence to IFT. The researcher too, who has a long association with STNZ, may have been affected by the desire for IFT to have

been seen as effective and, although was cognisant of remaining objective and critical throughout all phases of the study, subtle effects may have occurred to bias the various stages of research development.

One example of this may have occurred by being particularly helpful and vigilant during data collection which may have meant that participants responded to outcome and follow-up measures differently (more helpfully) than they would have by a less vigilant researcher. For example, participants took extra steps to contribute data to the researcher by providing some of the contextual information that was separate from the formal measures (e.g., "I was sick this week and so did not act out sexually"). The helpfulness of this extra data potentially offsets any limitations that this behaviour may have caused, as these details were able to be considered in data analysis. The potential for researcher and therapist bias in the current study exists and so future research using objective researchers and therapists who are blind to the methods could mitigate this possible confound.

Participant attrition is another limitation of single-case research design (Kratochwill et al., 2010). In the current study, two participants completed only three sessions, meaning only three data points in the treatment phase could be collected for them. However it is recommended that a minimum of five data points are collected to determine an intervention effect (Kratochwill et al., 2010). In spite of a generally responsive pool of participants, the current study was also limited by the lack of outcome data for several men, which mean that the conclusions of the current study may not apply to them. It is possible that they did not complete outcome data as they had relapsed and experienced guilt or shame, or even a sense of disappointment with the therapy they had invested in, which prevented them from completing the measure. It is also plausible that they had made such good gains from therapy that they had launched themselves into work and life, and completing outcome measures did not feature on their agenda. Unfortunately, there is no information available to inform the study as to how they had fared and so these possibilities are

speculative. One participant (Stu) did not complete any outcome measures beyond baseline, and although he completed all 12 sessions of therapy, the degree of change is unknown for him. However, there was very little that could have been done to counter this, as participation in the study was voluntary.

Future research could spend extra time at intake to ensure that participants have the opportunity to trouble-shoot barriers to completing measures as a way to mitigate such loss of valuable data. For example, regular computer access may have been a barrier. Alternatively, shame regarding sending data about sexual behaviour to a stranger outside of therapy may have affected reporting and problem-solving may have reduced these factors and increased the response rate. Other participants did not complete follow-up outcome data and an easier format for sending data may have mitigated this, such as providing an online form that could be easily completed online without the need to manually fill in and post, or telephone interview as used in Wan et al.'s (2000) study, although written data has been found to increase reporting about sexual behaviour as opposed to interview (Fenton et al., 2001; Womack et al., 2013).

Measurement Issues

There were also substantial problems with the types of measures used to capture intimacy and attachment. While the measures that mapped onto OCSB under Reid and Woolley's (2006) definition were largely helpful (e.g., CSBI, CSBCS), the attachment and intimacy measures were selected early on in the development of the project, prior to formalising IFT into a set of Principles. Over the duration of the study, it became clear that these measures were problematic for the study's purpose, particularly the FIS, as this did not map well enough onto the IFT Principles being examined or fully capture Cassidy's (2001) definition of intimacy.

Although the OCSB measures were largely helpful, which include the CSBI, CSBCS, and the distress ratings, there were two important areas that were not captured that would have

enhanced the current study's findings. The first of these is that the types of sexual behaviour and the context were not recorded, such as type of pornography watched or type of partner sex, and indeed what specific sexual behaviour the participant was seeking help for (and its associated characteristics, such as frequency and duration). This affected the ability to comment on any changes within these domains. For example, if pornography viewing was causing distress to the individual because they were doing so in their workplace, however, over therapy they contained the behaviour to at home only, their distress likely reduced and possibly some negative consequences experienced reduced, but the frequency or duration of their pornography viewing may not have changed at all. The content of pornography may have changed from something causing dissonance to watching a form of pornography that was ego sytonic.

In terms of the behaviour data that was collected weekly, a major limitation involves the lack of asking participants (or therapists) what their goals for therapy were and what they wanted to change about their sexual behaviour. Without this information, the changes that were captured by the sexual behaviour measures may lack relevance or accuracy towards the sexual behaviour goal the men were targeting themselves, although possible goals were captured via unsolicited comments which offer a snapshot of what individuals may have been aiming for. Further information about participants, including the content of the sexual behaviour that they wanted to target, may have enabled more individualised conclusions about the effectiveness of the therapy on actually achieving participant goals.

The measures selected to capture attachment and intimacy, the FIS and RSQ, were the most problematic in the study as neither was able to capture the capacity for intimacy as it developed, as defined by either the IFT principles or in the literature (Hook et al., 2003). The FIS by nature captures 'fear of intimacy' as well as having been suggested to also capture the content and expression of personal information, emotional valence towards the articulation of personal information, and vulnerability (Hook, et al., 2003). However, these elements are only part of the

capacity for intimacy. Intimacy also involves the ability to seek comfort when distressed, offer comfort to close others when they are distressed, to feel comfortable with self-autonomy and partner-autonomy, and to negotiate these needs for both closeness and autonomy (Cassidy, 2001). The current study did not measure these elements using the FIS. The RSQ also does not fully capture these domains although measures domains including level of comfort depending on others (secure subscale), fear of being hurt by being close to others (fearful), preferring not to depend on others (dismissing), and experiencing others as preferring not to depend on them (preoccupied).

The FIS and RSQ do not map onto the IFT Principles document, which talks about developing intimacy with therapist, self, and other as per Salisbury's (2008) developing practice model. Specific skills are also outlined in the IFT Principles document (Appendix B) which have not been measured over the study, for example "how to self-soothe", "how to listen well", and "how to empathise". As such, it is unclear to what degree these aspects of intimacy have altered as a result of IFT. The effectiveness of IFT not just to reduce OCSB but to do this by increasing intimacy is only partially known as a result of the current study's findings. In addition, one item on the FIS was accidentally omitted, which meant that the overall scores were likely lower by up to 5 points per participant (which was held constant across all phases of data collection). Additionally, therapist ratings versus client ratings of fear of intimacy have been found to have only low to moderate agreement ($r = .37$; Doi & Thelen, 1993). This raises the question as to whether the constructs of 'fear of intimacy' or 'capacity for intimacy' are best gauged by the client or the therapist, and whether client self-report may be limited due to the very nature of fear of intimacy involving low trust and self-disclosure.

The role of the partner was not measured or considered in the current study (Hentsch-Cowles & Brock, 2013). A review of the literature on treatment for sex addiction concluded that there was limited research on the role of the partner in treatment and that future research should

turn itself to this task (Hentsch-Cowles & Brock, 2013). In the current study, partners may or may not have been involved in treatment, and differences between therapy that included a partner versus not were not captured, yet such information may have been important to outcomes. For example, partner recovery (from infidelity) may have been a factor in client progress in terms of developing intimacy, as the partner may have been a barrier towards developing closeness (Manning, 2006). In addition to the role of the partner, the role of the therapeutic alliance was not examined in the current study and may have been a valuable addition. The therapeutic alliance has the strongest evidence as a therapy variable that links process to outcome (Lambert, 2004).

Treatment adherence

The measure designed to capture treatment adherence was designed to map onto IFT according to items in the IFT Principles document. One limitation to do with evaluating treatment adherence in this way related to the lack of an objective or independent method of measuring adherence, such as video or audio recording or using an objective rater. This is a limitation as therapists self-rated their own perceived adherence to IFT, which may have been affected by their social desirability or demand characteristics, and so it is unclear to what extent the therapists followed IFT. Additionally, the Therapist Adherence form was not a validated measure as it had been developed for the purpose of the current study. It had good face validity as it mapped onto items in the IFT Principles document, but its ability to capture adherence to IFT in terms of psychometric properties is unknown. While subjective ratings out of 10 were generally high, ranging from 6-9, actual percentage of adherence on an item-by-item basis indicated adherence was much lower, thus the degree to which similar treatment concepts were applied is unknown. This is discussed in the IFT Principles, as it is designed to be delivered in a flexible manner with individual variability depending on the nature of the OCSB, and thus while is a limitation in outcome research is also a strength of the type of therapy IFT is, but makes evaluation of this therapy difficult. Future research will need to find ways to pinpoint treatment

elements so as to enable further evaluation of this approach, as well as increase the likelihood that non-STNZ trained clinicians could apply this type of therapy with their clients.

Clinical applications and recommendations for future research

The present study highlights the effectiveness of IFT for men with OCSB, in terms of increasing control over sexual behaviour and reducing distress as well as negative consequences, and raises some important areas for future research. While the current study did not address epidemiology, there is a need for epidemiological research to be conducted in order to establish who and how many New Zealanders are affected by OCSB. An attempt at this was made recently, however, the study did not use robust measures of OCSB so, while it was a useful starting point in terms of prevalence in New Zealand, further research is needed (Skegg et al., 2010). Such research need not be affected by the nosological debate and lack of consensus as to the best term or definition for OCSB, and could simply use distress, impairment, and loss of control as ways of assessing OCSB (Reid & Woolley, 2006). Epidemiological research is vital as an understanding of the population affected can enable further studies on unique factors for New Zealanders. In particular, there is no research on Māori people affected or Pacific Island or Asian ethnic groups living in New Zealand as well as limited research on women. Such research is needed because there may or may not be cultural or gender differences that are important for consideration in refining effective treatments.

While epidemiological research is important, research that focuses on what helps people with OCSB is also necessary as the field continues to be dominated by research that does not focus on treatment or treatment effectiveness (Bancroft, 2008). Thus future research is recommended that examines IFT using a larger replication of this study incorporating both men and women and using robust assessment measures to capture changes over time in intimacy and attachment. Such research would ideally involve an independent researcher from STNZ who

has no vested interest in IFT. This could either be done within STNZ utilising existing clients with OCSB who consent to self-monitoring and participation in research, or alternatively may require a funding grant to conduct a replication over a longer period of time, ideally allowing participants to complete an individualised amount of therapy with 6-12 months follow-up to determine the longevity of therapy effects once therapy has ended.

In order to conduct such research, it is also important that robust and relevant measures of both intimacy and attachment are developed which may require therapist assessment rather than relying solely on client self-report (Doi & Thelen, 1993). The current study used the Fear of Intimacy Scale which is unique in the literature as there are not many other measures of intimacy. While this was a helpful measure in the current exploratory study, it is recommended that alternative measures are developed that are specific to developing the capacity for intimacy. Such a measure may map onto the IFT Principles that were developed and would require evaluation of psychometric properties to establish its utility to capture this dynamic construct. At this time, there are no particular measures designed to achieve this, although one study has explored developing a measure of attachment behaviour (in terms of anxiety and avoidance) with sexual partners in late adolescence (Szielasko et al., 2013). It is also suggested that further researchers investigating therapy outcomes for OCSB use methods to monitor the therapeutic alliance, such as using the Session Rating Scale (Johnson, Miller, & Duncan, 2000). By doing so, the therapeutic alliance can be considered alongside the outcomes to establish whether better outcomes may be to do with the quality of the relationship, rather than the type of therapy provided.

The current study was made possible by a funding grant to heavily subsidise the cost of attending therapy. Without this funding, most participants would likely have not been able to take part as the full cost would have been prohibitive, even on their income level which was generally high. Groups such as Sex and Love Addicts Anonymous are freely available but they do not exist

in every community. Further, these 12-step model groups do not suit every individual, and one person in the current study commented on their difficulty in finding a service to help him with OCSB that was not attached to a religious model. Thus there is a need for a variety of services that are affordable to be made available, whether this is through community groups, online, within hospitals, or individual or group therapies. In a New Zealand context, STNZ provides therapy services, however, the cost of therapy is often a barrier. The current study demonstrated that 12 sessions, which is considered short-term therapy, was a helpful amount for some participants, although more sessions were utilised by several participants with others wanting still more but not being able to afford additional therapy.

Further clinical applications pertain to psychoeducation about OCSB and where to go if affected. This is a problem area that has vast amounts of stigma and shame attached which largely reflect the sociocultural misunderstanding of these types of behavioural difficulties (Gilliland, South, Carpenter, & Hardy, 2011; Zhang, 2012). Psychoeducation about OCSB for various health professionals has been targeted by STNZ for the past decade; however, wider public health messages are also needed in order to increase understanding of the diversity in sexual interest and behaviour that exists without the need for labelling this as problematic. In addition, such messages could explain the underlying factors often associated when sexual behaviour causes distress or impairment, such as emotion regulation difficulties and a reduced capacity for intimacy in terms of anxiety and avoidance of closeness (Reid et al., 2008, 2009). If society had access to such information, there could be an open discussion about OCSB which can work towards understanding and empathy, as well as steps towards prevention in future generations. Prevention will require that children are supported to develop emotion regulation and intimacy skills as well as shielded from unhelpful messages or shame about sex. In addition to this type of psychoeducation, information and support for partners of those with OCSB would be

helpful as this problem can affect them in destructive ways which flows down to any children they have (Manning, 2006).

Conclusion

The current study evaluated STNZ's Intimacy Focused Therapy, which focuses on intimacy within a broad and integrated biopsychosocial approach, as a treatment approach for men with OCSB using a single-case multiple baseline design. Findings were that IFT reduced OCSB for men in the current study in terms of increasing their sexual control, reducing some sexual behaviours, as well as distress and negative consequences resulting from sexual behaviour. Less clear was the impact of IFT on intimacy or attachment, which raises several new questions about this therapy approach. Primarily, the mechanisms by which IFT works in terms of the overall theory underpinning OCSB involving intimacy and attachment deficits requires substantial future research, beginning with developing accurate and appropriate intimacy measures.

Given the few evaluations of existing OCSB treatments the current study's findings are encouraging and offer a further step towards understanding treatments that work for this population. This is important in an era where OCSB nomenclature has been the focus at the expense of investigating treatments to help the many individuals who present for assessment and treatment (Bancroft, 2008).

This research has provided a unique contribution to treatment outcome research in the area of OCSB. However, as Herring said of treating and preventing OCSB, "we've only just begun the work that must be done" (2004, p.41) and thus it is only a small contribution from a clinical psychology perspective. Research and collaboration between experts is required if we are to obtain an evidence-based and multifaceted understanding of OCSB, its causes and the most effective methods of treatment and eventually prevention. The focus must be on research that evaluates treatment for OCSB using methodologies that can determine effectiveness. Future

research on IFT should evaluate this approach over a longer duration of time, utilising measures that can capture the actual mechanisms that effect change, in order to establish the role of intimacy and attachment in therapy for OCSB.

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APPENDICES

- A What does attachment have to do with OCSB (Faisandier et al., 2012)
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APPENDIX A

What does attachment have to do with OCSB

Attachment and out-of-control sexual behaviour

What does attachment have to do with out-of-control sexual behaviour?

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Out-of-control sexual behaviour (OCSB) involves a continuum of sexual behaviour that results in distress or functional impairment. Several factors have been considered relevant to the etiology of OCSB, including attachment style, or the experience of intimacy-related anxiety and/or avoidance (Bowlby, 1969/1982, 1973, 1980). The present study explored OCSB and adult attachment amongst 621 New Zealanders using an online questionnaire. Using the SAST-R (Carnes, Green, & Carnes, 2010) to form groups, the OCSB group ($n = 407$) reported lower secure and higher insecure adult attachment than the non-OCSB group ($n = 214$), and this finding was strongest for women. This supports the notion that OCSB is associated with intimacy-related anxiety or avoidance, but further research is needed to clarify the mechanisms of this relationship in terms of whether attachment problems are a cause, consequence, or complex mixture of both in the development and maintenance of OCSB. Such knowledge would contribute to the development of etiological understandings of OCSB and inform future intervention approaches.

Although out-of-control sexual behaviour (OCSB) is not a new phenomenon, Carnes (1983, 1989, 1991) introduced it as *sexual addiction* nearly 30 years ago. Since then, controversy and disagreement has characterised the field, and almost 30 terms with over 100 definitions have been proposed (O'Donoghue, 2001), including sexual impulsivity (Barth & Kinder, 1987), sexual compulsion (Coleman, 1992), and hyper-sexuality (Reid, Carpenter, & Lloyd, 2009). The various merits and drawbacks of these and other monolithic terms and definitions have been enthusiastically debated (Gold & Heffner, 1998; Goodman, 2001). In recognition of the current lack of empirical consensus over these terms and their meaning, the all-encompassing term *out-of-control sexual behaviour* (Bancroft & Vukadinovic, 2004) has gained favour as acknowledging diversity in the experiences of sexual

behaviour problems, rather than focusing on certain features such as addiction (Reid & Carpenter, 2009). This is important because research indicates that OCSB is comprised of diverse motivations, experiences, and behaviours (Levine, 2010; Reid & Carpenter, 2009). For example, Levine (2010) reported that 75% of a small sample of 30 men presenting with OCSB over five years did not meet criteria for sexual addiction. Instead, 25% were classified as having a paraphilia while a further 50% required an alternative conceptualisation to addiction as they displayed a wide spectrum of sexual behaviour (e.g., masturbating to pornography, visiting strip clubs), which caused distress for their partner, but did not include addictive features. Reid and Carpenter (2009, p.294) also found no evidence of addictive tendencies in 152 treatment-seeking men, concluding that models offering

a "homogenous conceptualisation" of those with sexual behaviour problems can potentially overlook vital nuances in their experiences.

These experiences can include partner sex, masturbation, or use of pornography; multiple relationships or affairs, anonymous online sexual relationships, and phone sex; exhibitionism, voyeurism, or other fetishes; and dangerous or illegal sexual practices, although this list is not exhaustive or mutually exclusive (Hall, 2006). Features of compulsivity or addiction might be absent (e.g., increased time spent engaging in or recovering from the behaviour) when there are infrequent infidelities. Yet the behaviour still risks physical health problems such as sexually transmittable infections, interpersonal problems such as relationship breakups, and distress for the partner and/or children (Black, Kehrberg, Flumerfelt, & Schlosser, 1997). Alternatively, impulsivity might be absent in the case where an individual premeditates or plans the act over a period of time (Levine, 2010). This particular example shows that even the term OCSB is limited in cases where there is good impulse control, yet distress and/or impairment to functioning still occurs.

One important limitation when attempting to define OCSB involves how the individual, generational, and cultural context shapes the perception of these experiences as problematic or not (Coleman, 2007). Typically, individuals whose sexual behaviour deviates from the norms of their society

are labelled or pathologised (Levine & Troiden, 1988). Furthermore, the type of sexual activity can moderate the effect of sexual frequency. For example, Långström & Hanson (2006) found that high frequency of sex with a stable partner was associated with improved psychological and psychosocial functioning, while high frequencies of solitary or impersonal sex were related to problematic psychological and psychosocial functioning. Therefore individual, cultural, and relational factors must be considered when determining OCSB.

Despite these unresolved issues with defining problematic sexual behaviour, there are two generally accepted factors for determining if sexual behaviour is a problem (Goodman, 2001). The first relates to whether the sexual behaviour directly or indirectly causes distress to the individual or others (e.g., their partner). Those with OCSB are often (but not always) distressed by their behaviour, and frequently their behaviour can cause distress to others (Black et al., 1997). As a result, they can jeopardise their relationship, family, and career (Seegers, 2003), and their finances and sexual health can be affected, making for a potentially extremely destructive problem. Therefore, the second factor relates to whether impairment is experienced in at least one area of functioning as a result of the behaviour (i.e., social, occupational, financial, or interpersonal; Goodman, 2001).

To date, the etiology of OCSB is unknown, although researchers and clinicians working in the field agree that OCSB involves multiple interacting factors, including genetics, physiology, environmental factors, family of origin experiences (including intentional abuse or unintentional trauma), and concepts such as impulsivity and compulsivity (Kaplan & Krueger, 2010; Salisbury, 2008; Seegers, 2003; Shaffer et al., 2004). Bancroft and Vukadinovic (2004) also propose that different etiological factors can be relevant for different types of OCSB including affect regulation, inhibition responses, neurobiological factors, impaired self-regulation (i.e., self-soothing through sex), and an impaired motivational-reward system (i.e., orgasm and sexual

pleasure reinforce OCSB).

There is little empirical support for these etiological theories except for the notion of affect regulation difficulties (Bancroft & Vukadinovic, 2004; Reid et al., 2009; Reid, Carpenter, Spackman, & Willes, 2008). Bancroft and Vukadinovic investigated the link between negative affect states, affect regulation difficulties, and sexual arousal. In their small sample of 29 men and 2 women self-defined as sex addicts, increased arousal occurred in states of depression or anxiety which was not apparent in a large age-matched control group ($n = 339$), suggesting that sexual addiction might occur as a method of self-soothing for negative affect states in the absence of healthy affect regulation skills. Reid et al. (2008) similarly found that 116 men and 4 women who were hypersexuality outpatients reported greater emotional instability, a vulnerability to stress, and alexithymia (difficulty identifying feelings) than a control group.

A recent hypothesis is that the quality of early attachment experiences might be relevant in terms of establishing the basis for impaired affect regulation, impaired self-regulation, and the interpersonal and intrapersonal difficulties that can contribute to OCSB (Cozolino, 2006; Creeden, 2004; Hudson-Allez, 2009; Katehakis, 2009). Attachment theory posits that skills and expectations about intimacy with and relating to others develop in early relationships with caregivers (Ainsworth & Wittig, 1969; Bowlby, 1969/1982, 1973, 1979, 1980). Emerging neuroscience and longitudinal research suggest that the quality of these early experiences can influence brain development, life-long relationship behaviours, and the extent to which the capacity for intimacy will develop (Cozolino, 2006; Katehakis, 2009; Hudson-Allez, 2009; Obegi & Berant, 2009; Perry, 2005; Schore, 2001; Siegel, 2001, 2006; Sroufe, 2005). Secure attachment, associated with having received attuned and consistent caregiving, is thought to contribute to the development of sufficient intimacy skills for healthy relationships and life-enhancing sexual behaviour (Obegi & Berant, 2009). In contrast, insecure attachment styles, associated with having received unattuned, inconsistent,

rejecting, abusive, or neglectful caregiving, are thought to lead to deficits in the capacity for intimacy with others, and consequently relationships lacking intimacy, destructive sexual behaviour, and related psychological difficulties can result (Creeden, 2004; Sroufe, 2005).

Several insecure attachment styles are discussed in the literature, including preoccupied, dismissing, and disorganised attachment. A preoccupied attachment system involves high-need behaviour, such as reassurance seeking, hypersensitivity, anxiety, attention seeking behaviour, and heightened arousal (Hudson-Allez, 2009). The self feels worthless, ineffective at sourcing comfort, and dependent; while others are perceived as neglecting, insensitive, unpredictable, and unreliable (Hudson-Allez, 2009). In contrast, a dismissing attachment system involves cognitive defences that minimise attachment needs (Hudson-Allez, 2009). The self feels unloved but self-reliant and perceives others as rejecting, intrusive, and unable to meet their needs (Hudson-Allez, 2009). Disorganised attachment involves a frequent experience of heightened arousal and dysregulated distress, and fluctuations between preoccupied and dismissing behaviour result (Main & Solomon, 1990; Obegi & Berant, 2009). The self feels unloved, others are viewed as rejecting, threatening, and unpredictable, and limited attachment to others is formed (Obegi & Berant, 2009).

Consequences of insecure attachment include problems with emotional regulation, attuning to others, emotional hyperarousal or disconnection, impulse control, empathy, self-awareness, and self-soothing (Cozolino, 2006; Hudson-Allez, 2009; Schore, 2001; Siegel, 2001, 2006). Creeden (2004) suggested that successfully mastering these skill domains is an important prerequisite for developing responsible sexual behaviour as an adult, and that disruption to such skill development can lead to problematic sexual behaviour.

While the separate literatures on both attachment theory and OCSB are vast, there are few studies investigating the association between the two, and the existing studies have used correlational

designs with non-representative samples. However, the findings to date indicate that those with OCSB report higher insecure attachment as adults (Bogaert & Sadava, 2002; Gentzler & Kerns, 2004; Leedes, 1999; Zapf, Greiner, & Carroll, 2008). Leedes (1999) found that 95% of a small sample with sexual addiction ($N = 22$), defined as a score of 13 or more on the Sexual Addiction Screening Test (SAST; Carnes, 1991), reported an insecure style of attachment, with 68% describing dismissing and 27% preoccupied attachment. Leedes also found that those with sexual addiction reported more discomfort with closeness than non-sex addicts. Similarly, of 71 men defined as having sexual addiction also using the SAST (Carnes, 1991), the majority reported high fearful-avoidant (disorganised) (44%), preoccupied (28%), or dismissing attachment (20%), and only 8% secure attachment (Zapf et al., 2008).

Other research has examined the relationship between attachment and specific aspects of sexual beliefs and behaviour. In a sample of 202 female and 126 male undergraduates, higher levels of secure attachment were associated with fewer sexual partners, a positive attitude towards committed monogamous relationships, and generally more positive affect towards sexual experiences (Gentzler & Kerns, 2004). Conversely, higher levels of dismissing attachment were associated with less restrictive sexual beliefs and more casual sex, while higher levels of preoccupied attachment were related to less acceptance of sex outside of a committed relationship and with difficulties maintaining a relationship (Gentzler & Kerns, 2004). In contrast, Bogaert and Sadava (2002) found amongst 792 young Canadian adults that preoccupied attachment was related to more frequent infidelity, earlier age of first intercourse, and more lifetime partners, although this finding was stronger in women than in men (Bogaert & Sadava, 2002).

These few studies suggest that sexual beliefs and behaviour can be associated with attachment style, but more research exploring the relationship between attachment and OCSB is required given that the limited overseas

literature to date has involved samples of students, young adults, or men. The present study aimed to investigate the association between adult attachment and OCSB in a large sample. It was hypothesised that those reporting higher OCSB would report lower secure and higher insecure adult attachment than those reporting lower OCSB.

Method

Participants

English-speaking adults over the age of 18 who had access to a computer and the internet were invited to participate in an online survey about sexual behaviour. Of 885 responses, 264 were excluded because of missing data or giving data that excluded them from participation (e.g., under 18 years old, non-New Zealand resident, or missing data on the OCSB or attachment measures). The remaining 621 participants are described in the results section.

Measures

An online survey was compiled that involved 136 questions about 1) demographic information, 2) substance use, 3) OCSB (Sexual Addiction Screening Test-Revised; Carnes, Green & Carnes, 2010), 4) adult attachment (Relationship Scale Questionnaire, Griffin & Bartholomew, 1994; Experiences in Close Relationships-Revised; Fraley, Waller, & Brennan, 2000), and 5) anxiety and depression (Hospital Anxiety and Depression Scale; Zigmond & Snaith, 1983). This paper reports the results regarding OCSB and adult attachment.

OCSB. The SAST-R is a 45-item self-report screening tool for those with sexually compulsive behaviour (Carnes et al., 2010). The SAST-R comprises 20 core items and an additional 25 items that represent subscales and addictive dimensions. Respondents endorse either "yes" or "no" to reflect whether each item is true or false for them, with each "yes" response yielding a score of 1. For the core items, the first 20 items are summed. A score of 6 or more is considered to indicate the need for further assessment for sexual addiction (Carnes et al., 2010). This cutoff score is also typically used to signal OCSB and is associated with good sensitivity (82%) and specificity (78%; Carnes et

al., 2010), and for these reasons was also used in the present study. However, the SAST-R is a screening tool and therefore the OCSB and non-OCSB groups differentiated for the purposes of this study are not synonymous with a clear demarcation between those with and without OCSB.

The remaining 25 items represent subscales corresponding to the internet, men, women, homosexual men, and the dimensions of preoccupation, loss of control, relationship disturbance, affect disturbance, and associated features. Scores of 2 or more on each SAST-R subscale or dimension indicates a problem in that area, except for internet items and homosexual men's items which instead require 3 or more (Carnes et al., 2010). The SAST-R core item subscale has good reliability with 86% of sex 'addicts' and non-addicts correctly classified (Carnes et al., 2010), although the various other subscales and dimensions have not been validated (Hook, Hook, David, Worthington, & Penberthy, 2010). There was good internal consistency for the SAST-R core items in the present study ($r = .85$).

In the present study, two items were omitted for ethical reasons. These were items 1 ("Were you sexually abused as a child or adolescent?") and 29 ("I have been sexual with minors"). Item 2 ("Did your parents have trouble with sexual behaviour?") was adapted to include an "I don't know" option which was scored as "no" because some participants in the pilot trial of the survey did not know the answer to this question¹.

Adult attachment. The RSQ (Griffin & Bartholomew, 1994) is a 30-item self-report measure of adult attachment. Respondents rated the extent that each statement best "describes your relationship" on a five-point scale from 1 ("Not at all like me") to 5 ("Very much like me"). The RSQ measures four attachment dimensions and therefore has four subscales: secure (e.g., "I am comfortable depending on others"), fearful (e.g., "I worry that I will be hurt if I allow myself to become too close to

¹ A pilot trial of the survey was conducted prior to the study in order to check that the questionnaire was clear and understandable. A panel of Sex Therapy New Zealand therapists and two post-graduate psychology research students reviewed the survey and provided feedback prior to data collection.

others”), dismissing (e.g., “I prefer not to depend on others”), and preoccupied (e.g., “I find that others are reluctant to get as close as I would like”). The RSQ was scored as a continuous measure of attachment in accordance with Griffin and Bartholomew’s recommendations. Higher scores on each scale indicate higher insecure and lower secure attachment except for the secure scale where the opposite applies (Griffin & Bartholomew, 1994). Alpha coefficients for the RSQ have been found to be moderately high, ranging from .75 to .79 (Scharfe & Bartholomew, 1994). In the present study, internal consistency

for the secure, fearful, dismissing, and preoccupied attachment subscales was .52, .55, .69, and .72, respectively.

The ECR-R (Fraley et al., 2000) involves 36 items that capture adult attachment anxiety (e.g., “I often worry that my partner will not want to stay with me”) and avoidance (e.g., “I prefer not to be too close to romantic partners”). Respondents rated statements about how they “generally experience intimate relationships” by selecting a response from 1 (“strongly disagree”) to 7 (“strongly agree”). Items 1 through 18 capture the anxiety

scale and items 19 through 36 measure avoidance. Scores are calculated by averaging each participant’s responses for each subscale, after accounting for reverse scoring. Higher scores on each scale indicates higher insecure and lower secure attachment (Fraley et al., 2000). The ECR-R has high short-term temporal stability for both avoidance ($\beta = .90$, $R^2 = .84$) and anxiety ($\beta = .92$, $R^2 = .85$) (Sibley, Fischer, & Liu, 2005). In the present study, internal consistency was high for anxiety (.94) and avoidance (.95).

Table 1. Demographic Variables for the Whole Sample in Comparison with the OCSB and Non-OCSB Groups

Variable	Whole sample (<i>n</i> = 621)		OCSB group (<i>n</i> = 407)		Non-OCSB group (<i>n</i> = 214)	
	%	(<i>n</i>)	%	(<i>n</i>)	%	(<i>n</i>)
Gender						
Men	62.20	(386)	71.10	(285)	45.90	(101)
Women	37.50	(233)	28.70	(115)	53.60	(118)
Transgender	0.30	(2)	0.20	(1)	0.50	(1)
Sexual Orientation						
Heterosexual	76.80	(477)	72.70	(296)	84.60	(181)
Bisexual	16.60	(103)	20.60	(84)	8.90	(19)
Homosexual	5.00	(31)	4.60	(19)	5.60	(12)
Ethnicity						
European	83.90	(522)	82.50	(331)	86.80	(191)
Maori	5.60	(35)	5.70	(23)	5.50	(12)
Other ^a	5.60	(34)	6.20	(25)	4.10	(9)
Relationship Status						
Single	20.90	(130)	22.40	(90)	18.20	(40)
Dating	18.70	(116)	17.50	(70)	20.90	(46)
Living with partner	27.40	(170)	26.70	(107)	28.60	(63)
Married	31.60	(196)	32.40	(130)	30.00	(66)
Separated	6.00	(37)	7.20	(29)	3.60	(8)
Divorced	3.70	(23)	4.00	(16)	3.20	(7)
Widowed	0.50	(3)	0.00	(0)	1.40	(3)
Relationship Length						
10 or more years	27.00	(230)	38.80	(158)	33.60	(72)
5-10 years	23.80	(148)	25.60	(104)	20.60	(44)
1-3 years	29.80	(185)	26.00	(106)	36.90	(39)
Less than 1 year	5.80	(36)	5.20	(21)	7.00	(15)
Less than 3 months	2.90	(180)	3.70	(15)	1.40	(3)
Mean Age in Years (<i>SD</i>)	35.68	(12.68)	37.10	(12.33)	32.97	(12.93)

Note. Where the *n* for each category does not sum to the total, it is either due to missing data or because participants could endorse more than one response for their ethnicity and relationship status.

^a “Other” ethnicity comprised New Zealanders (*n* = 16), Asian (*n* = 11), Pacific Island (*n* = 7), Indo-Fijian (*n* = 3), South African (*n* = 2), English (*n* = 2), Sri Lankan (*n* = 2) and one of each of the following ethnicities: American, Australian, Celtic, Chinese/Pakeha, Jewish, Italian/Maori, Hungarian, Indian, and Iranian.

Procedure

The study was advertised in a national press release that was publicised amongst online news sites, newspapers, magazines, and radio stations. Interested participants were directed to a Massey University website which contained the information sheet regarding the study as well as a link to the survey for those who wished to take part. Survey responses were received by the Programmer/Analyst in the School of Psychology at Massey University. Data were analysed using the Statistical Package for the Social Sciences (SPSS Version 17, 2008). The study received ethical approval (HEC: Southern A, 10/09).

Results

Descriptive statistics were first calculated to identify the nature of the sample, and the hypotheses were tested using correlation, chi-square, *t*-test, and factorial ANOVA. Bonferroni adjustments for multiple tests were considered but not conducted in light of recent arguments about the value of such adjustment, especially with large samples, and calls to report effect sizes to avoid publication bias and false interpretations (Nakagawa, 2004; Perneger, 1998).

Demographic Variables

Table 1 displays the frequencies of demographic characteristics of the whole sample ($N = 621$), as well as the OCSB ($n = 407$) and non-OCSB

groups² ($n = 214$; formed as a result of using a cut-off score of six or more on the SAST-R core item scale; Carnes et al., 2010). The sample was mostly European, heterosexual men who were in a relationship that had lasted at least one year and had a mean age of 35.72 years ($SD = 12.68$).

A series of chi-square tests for independence examined the differences between the groups on demographic variables. There was a similar proportion of men and women in the non-OCSB group, whereas the OCSB group consisted mostly of men, $\chi^2 (1, n = 619) = 38.05, p < .001, \phi = .25$. Participants in both groups were mostly European with no significant differences in ethnicity, $\chi^2 (4, n = 607) = 1.83, p = .77, \phi = .06$. Participants in both groups were largely heterosexual, but the OCSB group had higher proportions of bisexual respondents, $\chi^2 (2, n = 611) = 14.45, p < .001, \phi = .15$. There were similar proportions for relationship status although this was not able to be tested due to the fact that the categories were coded separately. There were similar proportions found for relationship length, $\chi^2 (6, n = 617) = 12.02, p = .06, \phi = .14$. An independent samples *t*-test (two-tailed) also looked at age differences between the groups. A significant age difference was found, with the OCSB group being on average 4.16 years older than the non-OCSB group, $t(619) = 3.91, p < .001, d = .33$,

despite this being a small effect.

OCSB and Attachment

The relationship between the groups' total SAST-R core item score and adult attachment scores were explored using Pearson product-moment correlation coefficients. For both groups, there were small positive correlations between the SAST-R core item score and fearful, preoccupied, anxious, and avoidant attachment, while dismissing attachment was not correlated and secure attachment had a small negative relationship with the SAST-R score (see Table 2). As the SAST-R core item score increased, secure attachment decreased and insecure attachment (except the dismissing style) increased, but this relationship was weak.

Independent-samples *t*-tests (two-tailed) compared the groups on the two adult attachment measures. As shown in Table 3, the OCSB group reported lower secure and higher insecure attachment in all domains than the non-OCSB group. All of these effects were of small to moderate magnitude (Cohen, 1988).

Additional independent samples *t*-tests (two-tailed) investigated whether there were differences within the OCSB group when comparing those with particularly high SAST-R scores as opposed to lower SAST-R scores. The high-SAST-R group was determined by taking those with scores of 14-19 ($n = 81$), while the low-SAST-R group comprised those with scores of 6-13 ($n =$

Table 2. Correlations of the RSQ and ECR-R Subscales with Total SAST-R Core-Item Score for the OCSB and Non-OCSB groups

Subscale	Whole sample ($N = 621$)	OCSB group ($n = 414$)	Non-OCSB group ($n = 207$)
RSQ			
Secure	-.33**	-.18***	-.22**
Fearful	.25**	.12*	.25***
Preoccupied	.18**	.14**	.21**
Dismissing	.09*	.00	.06
ECR-R			
Avoidance	.32**	.17**	.19**
Anxiety	.39**	.26***	.31***

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

²While the present study uses the terms OCSB group and non-OCSB group, this differentiation distinguishes those who reported lower and higher OCSB and is not synonymous with a clear demarcation between those with and without OCSB.

326). The high-SAST-R group reported lower secure attachment ($M = 2.95$, $SD = .81$) than the low-SAST-R group ($M = 3.22$, $SD = .74$), $t(405) = 2.93$, $p < .001$, $d = .44$. Fearful attachment was no different for the high-SAST-R ($M = 2.77$, $SD = 1.05$) and low-SAST-R groups ($M = 2.49$, $SD = .93$), $t(405) = 2.36$, $p = .02$, $d = .34$, and there were no differences for preoccupied [($M = 3.33$, $SD = .93$), ($M = 3.06$, $SD = .90$), respectively, $t(120.28) = 2.30$, $p = .02$, $d = .36$] or dismissing attachment [($M = 3.20$, $SD = .88$), ($M = 3.17$, $SD = .86$), respectively, $t(406) = 0.40$, $p = .76$, $d = .04$]. The high-SAST-R group had higher anxious attachment ($M = 4.42$, $SD = 1.49$) than the low-SAST-R group ($M = 3.67$, $SD = 1.30$), $t(405) = 4.52$, $p < .001$, $d = .64$, as well as higher avoidant attachment ($M = 3.83$, $SD = 1.57$) than the low-SAST-R group ($M = 3.41$, $SD = 1.26$), $t(405) = 2.79$, $p < .001$, $d = .34$.

Gender and Age Differences

Because the OCSB and non-OCSB groups were proportionately different in gender and age, further analyses explored whether attachment scores for the groups were different depending on these two variables. For analysis of gender differences, multivariate and multiple univariate tests were both considered. MANOVA revealed mostly significant differences which necessitated additional tests, so a series of factorial ANOVAs were used to compare attachment scores according to both OCSB group and gender (Huberty & Morris, 1989). The means and standard deviations are shown in Table 4.

For secure attachment, the main effect of OCSB group was significant, $F(1, 615) = 68.75$, $p < .001$, $\eta^2 = .10$. The main effect of gender was not significant, $F(2, 615) = 5.28$, $p = .02$, $\eta^2 = .01$. However, there was an interaction effect, $F(1, 615) = 13.34$, $p < .001$, $\eta^2 = .02$, although this effect was small (see Figure 1). The OCSB group reported lower secure attachment than the non-OCSB group but this interacted with gender, in that women in the OCSB group reported lower secure attachment than men in that group. The same pattern was apparent for anxious attachment, where there was a main effect for OCSB group, $F(1, 615) = 89.13$, $p < .001$, $\eta^2 = .13$, but not for gender, $F(1, 615) =$

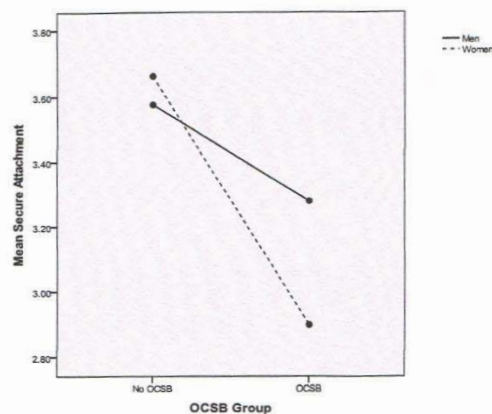


Figure 1. The interaction of OCSB group and gender for secure attachment.

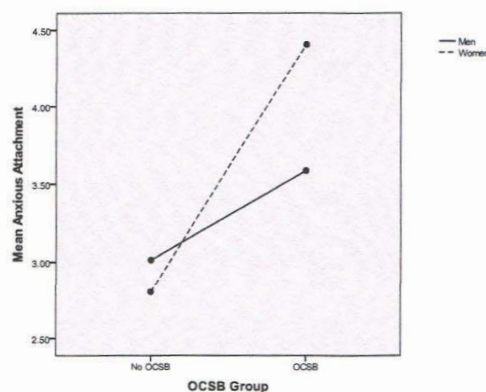


Figure 2. The interaction of OCSB group and gender for anxious attachment.

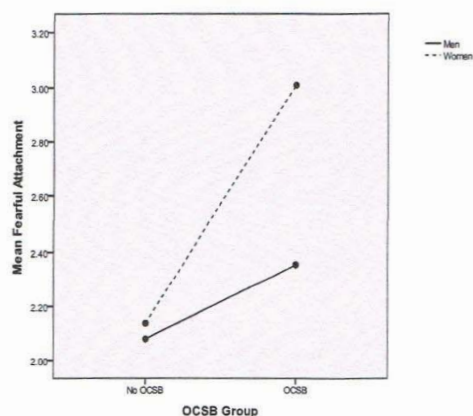


Figure 3. The interaction of OCSB group and gender for fearful attachment.

Table 3. Mean Adult Attachment Scores According to OCSB Group

Subscale	Whole sample (<i>N</i> = 621)		OCSB group (<i>n</i> = 407)		Non-OCSB group (<i>n</i> = 214)		<i>t</i>
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)	
RSQ							
Secure	3.32	(0.77)	3.17	(0.76)	3.62	(0.70)	<i>t</i> (619) = 7.14, <i>p</i> < .001, <i>d</i> = .62
Fearful	2.40	(0.95)	2.54	(0.96)	2.12	(0.85)	<i>t</i> (483) = 5.60, <i>p</i> < .001, <i>d</i> = .45
Preoccupied	3.04	(0.87)	3.12	(0.91)	2.90	(0.76)	<i>t</i> (506) = 3.10, <i>p</i> < .001, <i>d</i> = .26
Dismissing	3.11	(0.85)	3.17	(0.86)	3.00	(0.82)	<i>t</i> (619) = 2.34, <i>p</i> = .02, <i>d</i> = .20
ECR-R							
Anxiety	3.50	(1.41)	3.81	(1.37)	2.91	(1.29)	<i>t</i> (619) = 7.37, <i>p</i> < .001, <i>d</i> = .62
Avoidance	3.23	(1.30)	3.49	(1.25)	2.72	(1.22)	<i>t</i> (619) = 8.03, <i>p</i> < .001, <i>d</i> = .67

Note. ECR-R score range: 1-7. RSQ score range: 1-5.

7.19, *p* = .008, $\eta^2 = .01$. There was an interaction effect, $F(1, 615) = 19.95$, *p* < .001, $\eta^2 = .03$, with a small effect size (see Figure 2). The OCSB group reported higher anxious attachment than the non-OCSB group and this interacted with gender in that women with OCSB reported higher anxious attachment than men in that group.

For fearful attachment, there were main effects for OCSB group, $F(1, 615) = 53.80$, *p* < .001, and gender, $F(1, 615) = 20.67$, *p* < .001, but the effect sizes were small ($\eta^2 = .08$ and .03, respectively). There was a small interaction effect, $F(1, 615) = 14.48$, *p* < .001, $\eta^2 = .02$ (see Figure 3). The OCSB group scored higher on fearful attachment than the non-OCSB group but this interacted with gender with women in the OCSB group reporting higher fearful attachment than men in that group.

For preoccupied attachment, there was no main effect for gender, $F(1, 615) = 6.50$, *p* = .01, $\eta^2 = .01$. However, the main effect for OCSB group was small but significant, $F(1, 615) = 12.73$, *p* < .001, $\eta^2 = .02$. There was no interaction effect, $F(1, 615) = 0.53$, *p* = .47, $\eta^2 = .00$. The OCSB group, scored higher on preoccupied attachment than the non-OCSB group irrespective of gender. A similar pattern was apparent for both dismissing and avoidant attachment. There was no main effect for gender on dismissing attachment, $F(1, 615) = 2.66$,

p = .10, $\eta^2 = .00$. The main effect for OCSB group was however significant, $F(1, 615) = 10.37$, *p* < .001, $\eta^2 = .02$, despite a small effect size, and there was also no interaction, $F(1, 615) = 4.03$, *p* = .05, $\eta^2 = .01$. The OCSB group, scored higher on dismissing attachment than the non-OCSB group irrespective of gender. For avoidant attachment, there was no main effect for gender, $F(1, 615) = 0.20$, *p* = .67, $\eta^2 = .00$. However the main effect for OCSB group was significant, $F(1, 615) = 3.42$, *p* = .001, $\eta^2 = .09$, with a large effect size. There was no interaction effect, $F(1, 615) = 3.42$, *p* = .07, $\eta^2 = .01$. The OCSB group, reported higher avoidant attachment than the non-OCSB group irrespective of gender.

Finally, Pearson product-moment correlation coefficients were used to examine the relationship between age and SAST-R core item scores. There was a significant small positive relationship for the whole sample (*r* = .16, *n* = 621, *p* < .001), with SAST-R score increasing with increased age. However, there was no relationship between age and SAST-R score for the OCSB (*r* = .06, *n* = 621, *p* = .21) or non-OCSB groups (*r* = -.03, *n* = 621, *p* = .62).

Discussion

The aim of the present study was to investigate the association between adult attachment and OCSB. As hypothesised, the OCSB group reported higher fearful,

dismissing, preoccupied, anxious, and avoidant attachment, and lower secure attachment than the non-OCSB group. These effects were moderate in size except dismissing and preoccupied attachment which had small effects (Cohen, 1988). These findings are consistent with previous studies which have reported higher insecure and lower secure adult attachment in those with OCSB (Leedes, 1999; Zapf et al., 2008). Zapf et al. (2008) found that only 8% of those accessing online self-help for OCSB reported secure attachment, with 20% reporting dismissing, 28% preoccupied, and 44% disorganised attachment. Leedes (1999) found that a high rate of treatment-seeking sex addicts (68%) had avoidant (dismissing) and 27% had preoccupied styles of attachment with only 5% reporting secure attachment, although this study did not describe the method for gauging attachment.

In the present study, correlational analyses further supported the relationship between OCSB and adult attachment. Scores on the SAST-R were positively correlated with all types of insecure attachment measured and negatively correlated with secure attachment, although these relationships were weak. Those with higher SAST-R scores reported lower secure attachment and higher attachment anxiety and avoidance than the lower-SAST-R group, although these were relatively

Table 4. Mean Adult Attachment Scores According to OCSB Group and Gender

Gender		OCSB group (<i>n</i> = 407)		Non-OCSB group (<i>n</i> = 214)	
Subscale		<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)
RSQ					
Secure	Men	3.28	(0.74)	3.58	(0.65)
	Women	2.90	(0.73)	3.65	(0.76)
Fearful	Men	2.36	(0.89)	2.09	(0.79)
	Women	3.01	(0.98)	2.15	(0.88)
Preoccupied	Men	3.05	(0.91)	2.84	(0.79)
	Women	3.30	(0.91)	2.97	(0.70)
Dismissing	Men	3.10	(0.84)	3.02	(0.89)
	Women	3.37	(0.89)	2.99	(0.75)
ECR-R					
Avoidance	Men	3.42	(1.23)	2.80	(1.16)
	Women	3.66	(1.30)	2.66	(1.26)
Anxiety	Men	3.59	(1.32)	3.02	(1.27)
	Women	4.42	(1.33)	2.83	(1.31)

Note. ECR-R score range: 1-7. RSQ score range: 1-5.

small effects. There were no differences in preoccupied, fearful, or dismissing attachment between the high- and low-SAST-R groups, suggesting that the degree of OCSB is less important than the presence of OCSB when it comes to insecure attachment.

The present study found variability in the reported types of insecure attachment style in those with OCSB. The highest reported insecure style on the RSQ was dismissing followed by preoccupied attachment, while attachment anxiety was higher than avoidance in those with OCSB on the ECR-R. Type of attachment style is important in OCSB because some research has found that different attachment styles correlate differently with certain sexual beliefs and behaviours (Bogaert & Sadava, 2002; Gentzler and Kerns, 2004). Avoidant attachment has been positively related with less restrictive sexual beliefs and more casual sex, while anxious (preoccupied) attachment has been positively related to beliefs about monogamy but difficulties in maintaining a relationship (Gentzler & Kerns, 2004). Bogaert and Sadava (2002) found the opposite when they compiled an attachment measure based on Hazan & Shaver's (1987) original attachment measure. In their study, preoccupied attachment was related to infidelity, more lifetime partners, and

more condom usage (Bogaert & Sadava, 2002). Differences in the samples studied (i.e., young Canadian adults in comparison to undergraduate students) may explain the variability in how these insecure attachment styles were found to manifest in sexual behaviour, and further research is needed to explore this relationship in greater depth.

In the present study, the association between OCSB and certain types of adult attachment was stronger for women than men. Women in the OCSB group reported lower secure and higher fearful, dismissing, and anxious adult attachment, and higher attachment anxiety and avoidance than men. Bogaert and Sadava (2002) found similar gender differences and concluded that this might be because women are more vulnerable to their attachment style being activated during sexual circumstances, and that this affects their sexual behaviour more than men. However, an alternative interpretation is that women with OCSB might be more self-aware and open to self-disclosure about relationship insecurities or distress compared to men. Clinical observations find that men with insecure attachment frequently appear less aware of their attachment anxiety than women (R. Salisbury, personal communication, November 10, 2010). These cases often require therapy

approaches that draw attention to the recognition of insecurity, vulnerability, or distress before further therapy can progress. Further research should explore this observation as there may be important treatment variations between men and women.

While the present study provides the first investigation of adult attachment and OCSB in New Zealand, there are several limitations, especially in relation to the measurement of OCSB. The SAST-R (Carnes et al., 2010) is a screening tool rather than an assessment tool for OCSB. While it has been shown to reliably differentiate those with and without OCSB, it remains only a screening tool that should be followed by further assessment to clarify the presence and individual phenomenology of OCSB. Previous studies using the SAST have used the original 25-item measure with a cut-off of 14 (Leedes, 1999; Zapf et al., 2004), but the present study used the revised 45-item measure with a cut-off of six, thereby affecting comparisons between the studies. Furthermore, in the present study, items 1 and 29 of the SAST-R were removed for ethical reasons, which may have further affected across-study comparisons as well as the validity and reliability of the core item score and the men's items subscale, to which these omitted items contribute.

Self-report research on attachment can be affected by self-report bias and is dependent on the current functioning of the respondent's romantic relationship (Bartholomew, 1990). However, self-report methods are moderately correlated with interview methods of assessment (Bartholomew & Moretti, 2002; Griffin & Bartholomew, 1994). The present study followed Hazan and Shaver's (1994) instructions and utilised two validated attachment measures. When used this way, self-reports of attachment are considered a good surface indicator of a range of behavioural and physiological processes related to attachment behaviour, as predicted by attachment theory (Bartholomew & Moretti, 2002; Bifulco, 2002).

The present study did not set out to recruit a representative sample, and the nature of the present sample makes it difficult to know to whom the results relate. Online respondents are usually

younger, of higher socio-economic and education status, and more often male (Binek, Mah, & Kiesler, 1999), and volunteers for sex research are often more sexually experienced, sensation-seeking, and unconventional (Fenton, Johnson, McManus, & Erans, 2001). This is likely to apply to the present study and is indicated by the high number of bisexual respondents ($n = 144$) in the sample and the large proportion of respondents being classified in the OCSB group ($n = 407$). While these limitations are important to note, the present study did not intend to provide generalisable findings but rather to investigate the link between insecure attachment and OCSB. Further research using a representative sample with a demographically-matched control group will be able to draw generalisable conclusions in terms of the epidemiology of OCSB in New Zealand.

The present study supports further exploration of the role of attachment in OCSB. Empirical evidence is needed to establish whether insecure attachment contributes to the etiology of OCSB. It could be that higher secure attachment leads to healthy sexual behaviour, OCSB itself might lead to higher insecure attachment, or there might be a bidirectional link between the two. The present study and the few other studies investigating this link (Bogaert & Sadava, 2002; Gentzler & Kerns, 2004; Leedes, 1999; Zapf et al., 2008) have been unable to draw any conclusion regarding the direction of this link due to the use of correlational designs. Future longitudinal research following infants through to adulthood is necessary to establish causation, although such research would need to consider moderating factors (e.g., sexual abuse, mental health, medical conditions) and could also examine protective factors that prevent OCSB from occurring in those who are insecurely attached.

Future research also needs to examine differences for men and women in relation to OCSB and attachment. The present study found an interaction between gender and OCSB for some types of attachment, with women in the OCSB group reporting lower secure and higher fearful and anxious attachment than men. Women who are insecurely attached may be more vulnerable to

OCSB than insecurely attached men, although some men without insecure attachment develop OCSB. However, clinical observations note that men with insecure attachment appear to be less self-aware and able to express vulnerability than women (R. Salisbury, personal communication, November 10, 2010). One function of secure attachment is the ability for insight, self-awareness, and self-understanding (Cozolino, 2006; Hudson-Allez, 2009; Siegel, 2001, 2006). Perhaps more women with insecure attachment receive protective factors that enable this capacity for insight to develop (such as friendships or peer interactions), while more men with insecure attachment have reduced insight or expression of vulnerability.

This might be a function of the different attachment outcomes resulting from maternal in comparison to paternal caregiving (Hudson-Allez, 2009). Maternal attachment problems have been linked with inappropriate social behaviour, poor impulse control, self-indulgence, explosiveness, increased motor activity, and sexual disinhibition (Hudson-Allez, 2009). In contrast, paternal attachment problems have been linked with reduced overt emotion, depression, impaired socialisation, and reduced spontaneity (Hudson-Allez, 2009). Therefore, men may be more vulnerable to the effects of paternal caregiving outcomes, such as the ability to recognise and express vulnerability or distress. There may also be other differences between the nature of deficits depending on attachment experiences between men and women. These deficits in OCSB should be researched using clinical assessment and neuropsychological tests, such as in Reid, Karim, McCrory, and Carpenters study (2010), in conjunction with brain-imaging techniques. Such research would be beneficial to etiological understandings of OCSB that could inform the development of specific intervention approaches.

One glaring gap in OCSB research involves exploration of cultural differences. The existing research has involved mostly Caucasian or American samples, and epidemiological data on cultural differences in OCSB is non-existent (Ragan & Martin, 2000;

Skegg, Nada-Raja, Dickson & Paul, 2010). Similarly, the present study included a sample that was mainly European, heterosexual, and male. Future research needs to address this limitation, as the expression of sex and how OCSB is defined and measured in different cultures may vary from what research has found using predominantly Caucasian samples, and should consider cultural factors relating to attachment and sexual behaviour.

Finally, effective treatments for OCSB need to be investigated because individuals are presenting with distress or harm resulting from their sexual behaviour, with potentially dire effects for themselves, their families, and their communities. Current treatment approaches for OCSB focus on pharmacological, cognitive and behavioural, twelve-step, and group approaches but these have not yet been empirically tested. The present study found that higher insecure attachment is part of the presentation for many people with OCSB, and thus approaches that are attachment-based should also be evaluated as an intervention for OCSB. Future research is needed regarding the effectiveness of OCSB treatments in order to establish evidence-based practice in this field.

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Appendix B

STNZ's IFT treatment principles

A document developed as an appendix for the Massey University research project 'Effective Intimacy? Evaluating Intimacy Focused Therapy for 'Out of Control' Sexual Behaviour.'

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What is Out of Control Sexual Behaviour?

There is much disagreement in the literature about what to call problematic sexual behaviour. Prevalence is estimated to be 3-6% with most of those affected being men, but not exclusively (Kafka, 2010). The term 'out-of-control sexual behaviour' (OCSB) has gained favour as a nosological term because it recognises diversity in the motivations and experiences of sexual behaviour problems, and a lack of consensus over the meaning and etiology of such behaviours (Bancroft & Vukadinovic, 2004). OCSB can include partner sex, masturbation, or use of pornography; multiple relationships or affairs, anonymous online sexual relationships, phone sex, exhibitionism, voyeurism, or other fetishes and dangerous or illegal sexual practices, although this list is not exhaustive or mutually exclusive (Hall, 2006). OCSB risks physical health problems such as sexually transmittable infections, interpersonal problems such as relationship breakups, and distress/risks for the partner and/or children (Black, Kehrberg, Flumerfelt, & Schlosser, 1997). Thus, OCSB covers a diverse range of sexual thoughts, feelings, and behaviours that all have in common the behaviour causing distress to self or other and resulting in impairment in one or more life domains (Reid & Woolley, 2006). Often, but not necessarily, the individual will have a perception of being out of control. The following hypothetical case examples provide some examples of OCSB as they meet the criteria of distress for self or other and impairment to at least one domain of functioning:

- “John” is a 39 year old self-employed graphic design artist who spends 5-6 hours a day viewing porn online while at work and when home in the evenings. As a result of his time spent online while at work his finances have been affected and he no longer is able to be aroused during sex with his partner. In addition, the pornography content has become increasingly more extreme and his partner has given him an ultimatum to seek help, after finding videos of bestiality in their computers recycle bin. John feels depressed that he continues to engage in the online viewing but has been unable to stop viewing on the many times that he has tried.
- “Tom” is a 50-year-old married politician who visits massage parlours and prostitutes whenever he is out of town, due to feelings of loneliness. The guilt from his behaviour led to increases in his alcohol consumption and caused great anxiety for him that he may be caught. This fear was publically realised when he was caught out after using his government credit card to purchase sex. This led to great shame for Tom, and his wife, children, and friends shunned him, and his career future is now uncertain.
- “Daniel” is a 28-year-old single man who spends his evenings cruising local parks, public restrooms, and erotica stores for sexual contacts, either male or female. This activity consumes several hours a night and has prevented Daniel from completing his University qualification. He has unprotected sex with multiple anonymous partners each week and has been unable to change this unsafe practice despite having contracted several sexually transmitted infections and difficulties being able to stay in a relationship for more than a few weeks.

As these cases demonstrate, there are various scenarios involved in OCSB, each with some similar and some different contributing factors and consequences. In John's case a cycle may have begun due to difficulties self-regulating or being able to share his distress with his partner. Online pornography viewing may have begun in an attempt to regulate his negative feelings in the absence of sufficient individual or relationship resources to do so. Over time the use has increased and despite wanting to stop he has been unable to. He feels terribly distressed by his inability to stop and it has caused relationship strain, further distress and increased use in an attempt to self-regulate.

In Tom's case, he may have originally experienced anxiety from being alone while away on a trip and as he was unable to access sex due to being away from his wife he contacted a sex worker as self-soothing. He likely experiences considerable guilt and shame which has led to him consuming alcohol and ruptured his relationship when he was discovered.

Lastly, Daniel is taking some serious risks and has an inability to alter his behaviour despite sexual health problems. His relationships may be so brief as he is unable to become close to others in a non-sexual manner, lacking the intimacy skills to connect with someone else.

Each case has this commonality of difficulties with intimacy in relationships. In John and Tom's case they have current relationships in which they are experiencing intimacy problems while Daniel has trouble forming a long-term relationship at all. Although an empirically supported etiology of OCSB has not been confirmed, researchers and clinicians working in the field agree that it involves multiple, interacting factors, including genetics, physiology, environmental factors, family of origin experiences (including intentional abuse or unintentional trauma), non-familial trauma and concepts such as impulsivity and compulsivity (Kaplan & Kruegar, 2010; Salisbury, 2008; Seegers, 2003). Bancroft and Vukadinovic (2004) also proposed that different etiological factors might be relevant for different types of OCSB including affect-regulation difficulties, a lack of inhibition response, neurobiological factors, impaired self-regulation (i.e., self-soothing through sex) and an impaired motivational-reward system (i.e., orgasm and sexual pleasure reinforce OCSB). A growing body of work supports a relatively new theory that the quality of childhood caregiving experiences which influences life-long relationship skills and sexual behaviour, known as Attachment Theory (Cozolino, 2006; Hudson-Allez, 2009; Katehakis, 2009; Obegi & Berant, 2009; Schore, 2001; Siegel, 2001, 2006; Sroufe, 2005).

Attachment is the process of relating to other people and the critical stage for this is during infancy and early childhood. Either a secure or insecure attachment can result depending on the caregiving received. Secure attachment, associated with having received attuned and consistent care-giving, is thought to contribute to the development of sufficient intimacy skills for healthy relationships and life-enhancing sexual behaviour (Obegi & Berant, 2009). In contrast, insecure attachment styles, associated with having received unattuned, inconsistent, rejecting, abusive, or neglectful care-giving, are thought to lead to deficits in the capacity for intimacy with others, and consequently relationships lacking intimacy, destructive sexual behaviour, and related psychological difficulties can result (Creeden, 2004; Katehakis, 2009; Sroufe, 2005). Thus OCSB may be caused and maintained by difficulties in intimacy, examples of

which include deficits in emotional recognition, expression, and regulation (including anxiety and depression), an inability to be compassionate towards the self or partner, and experiencing difficulty with assertiveness or not being well boundaried. The relational therapy approach developed by STNZ considers these and other intimacy deficits to be a core factor in OCSB, within the context of the variety of other possible contributing factors that have been identified.

Contributing Theories to STNZ's Approach

An integrated biopsychosocial assessment and treatment model delivered through an intimacy-focused, relational therapeutic process is recognised by STNZ as best practice, because of the recognition that OCSB involves multiple interacting etiological factors, as will now be outlined.

Attachment Theory (Bowlby, 1969/82, 73, 79, 80): adult intimate behaviour is influenced by childhood intimate attachment experiences. Love and sexuality systems are overlapping but separate systems. Childhood attachment experiences shape children learning various ways of responding to their own needs- constructive or destructive. Research into OCSB and attachment supports the notion that OCSB is associated with insecure attachment (anxiety or avoidance of closeness) (Faisandier, Taylor, & Salisbury, 2012; Zapf, Greiner, & Carroll, 2008).

Psychodynamic Theory: adult sexual relationships and behaviour can be significantly impacted on by infants' and young children's experiences with their primary caregivers. This includes an understanding of the impact of the unconscious mind on adult behaviour. This theory relates to clarifying and resolving the role of developmental issues in OCSB, as well as working with coexisting depression, anxiety, guilt and shame.

Behavioural and Cognitive-Behavioural Theory (Watson, Beck): behaviours are either reinforced with rewards and punishments, or learned through associations between two stimuli. Internal states- e.g. thoughts and emotions, also significantly impact on behaviours and play an important role in behavioural change. These theories relate to the use of behavioural conditioning techniques to help manage OCSB (E.g., aversion therapy). Cognitive Behavioural Therapy may be used to identify and modify beliefs, identify risk situations, and rehearse new behaviours, as well as in relapse prevention work.

Social Learning Theory (Bandura): learning can take place through watching role models and through the media (Zoldbrod, 1998).

Family Systems Theory (Bowen): understanding the individual's behaviour in relation to the emotional system of the family. This theory suggests that individuation is required in order to become an adult capable of engaging in healthy, intimate relationships. The cultural context need to be kept in mind e.g., collectivist cultures.

Evolutionary psychology (Dawkins): that sexual behaviour is shaped by the biological drive to survive.

Stages of Change Theory (Prochaska & Diclemente): that there are various stages of change people progress through when engaging in behaviour change. Motivational Training may be needed to some extent for clients who are in the precontemplative or contemplative stage.

Neurobiology: missing out on empathic responsiveness can result in underdeveloped affect regulatory systems. Hudson-Allez (2009) suggests the insecurely attached individual is not able to produce sufficient dopamine or noradrenaline to create sexual excitement and inhibition, leading to increasing reliance on an external source to experience reward. Further, Van der Kolk has suggested that as the imprint of trauma is found in our limbic system and in the brainstem (non-thinking parts of our brain) and as the amygdala (responsible for flight and fight) can remain hypersensitive long after the trauma, sexual behaviour can be a way for a trauma survivor to relieve numbness or hyperarousal-i.e., regulate the nervous system (Hall, 2011).

Assessment

Things to rule out early in assessment include whether OCSB is the actual problem or if the sexual behaviour is part of some other problem type, for example, experiencing shame from sex rather than being out of control, having partner differences in optimal sexual frequency or sexual activities, having poor sexual communication or conflict resolution, experiencing cultural and subcultural differences in sexual expression, or religious conflicts. In these instances, alternative therapy work might be indicated rather than OCSB treatment, as the presenting problem may not be consistent with OCSB.

1. Define what problem behaviour is occurring
2. Frequency (when increased/decreased)
3. Location/rituals
4. Triggering circumstances
5. Implications (relationship, health, risks)
6. Functions of behaviour (self-soothing, impulse control, avoidance of uncomfortable feeling states)
7. Co morbidity screen – anxiety, depression, substance abuse, impulse control behaviour etc.
8. General health and wellbeing screen and skills/strengths (bio/psych/social)
9. Relationship dynamics cycle and impact of compulsive sex on relationship
10. Check diminished or absent sexual desire in client or partner and other sexual symptoms
11. Sexual history for client (include sexual abuse history screen)
12. Attachment history and relationship history

13. Capacity for intimacy (observed)
14. What are the client's treatment goals

Ethical Issues to advise client regarding obligations to breach confidentiality

15. Risk to self or other
16. Illegal behaviour

Items 1-6: Note the importance of assessing for different forms of OCSB when defining the problematic behaviour. For example, a client may masturbate excessively to porn, spend hours using chat rooms on the net, and use sex workers. An assessment of the frequency, location, triggering circumstances, and implications of each behaviour is required (e.g. health risks, risks for children, illegal behaviour), as well as identifying other symptoms/problems and the underlying potential causal factors.

Item 7: It is crucial to screen for axis I co-morbidity – there are high incidences of mood and anxiety disorders including bipolar disorder, conduct disorder, substance abuse disorders (especially alcohol abuse), and other impulse control disorders. Axis II disorders are also common, particularly on the borderline/narcissistic/antisocial dimension. It may be necessary to get permission to refer to medical professional/s for co-management.

Items 9-12: It is important to identify relationship dynamics as a part of assessment. There is no data showing that current relationship problems lead to compulsive sexual behaviour but conversely the presence of a meaningful relationship can have profound effects on the course and outcome of treatment. Further, we cannot assume relationship factors are not playing a contributing role e.g. serial infidelity by an individual failing to hold their power and assert themselves in relationship, thus carrying resentment and/or feeling under appreciated. It's essential to determine the impact of compulsive sex on a relationship- i.e., betrayal of trust etc.

Items 10 - 11: Be aware that in cases of diminished or absent sexual desire there may be a history or presence of hypersexuality (client or partner), this may be ongoing. You need to investigate.

Item 13: As with all therapy it is important to develop a therapeutic relationship where the client can trust you but when you are working with sexual compulsivity and atypical sexual behaviours you cannot assume that you can trust the client whilst assessing and treating. Compulsion and shame interfere powerfully with a willingness and ability to be open and honest. While you cannot bring trust to the therapeutic relationship, it's important to provide conditions that will maximise the likelihood of the client achieving that. Therapists must feel able to bring compassion; any negative counter-transference needs to be examined and resolved in supervision.

Item 14: The goal may be to remove the sense of compulsion and the association with feeling anxious or depressed rather than to stop the behaviour. For example, when someone is feeling troubled by a frequent urge to masturbate, examining the messages they have/are continuing to receive about this, along with looking at how they are using masturbation may be more appropriate than working to extinguish the behaviour.

Items 15-16: If a therapist believes the individual they are working with poses a risk to self or other, they are both allowed and obliged to breach confidentiality. E.g., viewing and storing porn on a family computer, having children as a sole object and disclosing behaviour towards this end. The first step, beyond notifying clients at the outset of treatment of this obligation and the exception to confidentiality if they disclose any such information, is to invite the client to reduce risk and increase vigilance over this risk by telling identified others. The need for the therapist to check this has occurred and to tell others including any relevant agency must be assessed by the therapist in consultation with the supervisor. Similarly if the therapist believes illegal behaviour is occurring, the Police will need to be informed after discussion with the supervisor and preferably inviting the client to be the one who does that.

Note. Effective therapy requires the therapist to be authentic and accepting and to bring compassion. If the behaviour the client is presenting is offensive or upsetting for the therapist, this poses a challenge needing to be urgently addressed in supervision. Similarly the therapist may find some material presented by the client arousing or either party may experience arousal during or between the sessions. It is common for OCSB clients to sexualise intimacy and thus sexualise the therapeutic relationship. Therapists need to be aware; to be able to establish and hold clear boundaries, to name and address in therapy such transference if it is occurring by the client, to identify and take to supervision such transference of it occurs in the therapist.

Possible Treatment Goals

Goal setting is an individualised process with some being presenting goals, some arising from assessment and others arising within the treatment process. A client's goals may include but not be limited to:

- Stopping infidelity within a monogamous relationship or negotiating some form of polyamorous arrangement.
- Ceasing to use pornography/ceasing to use it alone/reducing frequency of porn use.
- Ceasing masturbation for a focus on partnered sex/reducing masturbation frequency, only masturbating while with partner, ceasing to masturbate to pornography, learning to masturbate in a loving way.
- No longer using sex workers, phone sex, internet sex-related chat rooms etc.
- Reducing distress about any of the current sexual practices.
- Stopping dishonesty re sexual behaviour to a partner.
- Developing an understanding of what has motivated behaviour and learning to experience control over one's behaviour.
- Identifying dysfunctional thinking and forming new constructive beliefs and responses to self and others.
- Extinguishing a problematic sexual arousal object and replacing it with one the client finds constructive. This raises the difficult question of what is 'normal' which may need to be explored as goals are formulated. An e.g. of a goal in this category could be helping a male individual who has been shaming himself by stealing women's underwear to dress up in and masturbate, either learn to get aroused to his own (non-problematic)

fantasies or to his bodily sensations or to buy his own undies supply. Another e.g. someone who has conditioned themselves to get aroused and masturbate whenever they are home alone or bored and then finds they have no sexual energy for partner sex, may want to learn to create a new response to aloneness or boredom.

- Developing the capacity to be intimate and comfortable with sexual and non-sexual closeness.
- Personal growth, perhaps understanding one's own attachment experiences and earning a secure attachment: re-parenting oneself.
- Understanding one's own and others' emotional responsiveness.
- Learning to empathise.

Couple's goals might include:

- Working to heal the hurt from infidelities.
- Titrating a manageable return to intimacy OR helping a couple achieve the various domains of intimacy for the first time.
- Developing good communication skills.
- Learning to deal with conflict constructively.

Intimacy Focused Therapy for OCSB

Once a comprehensive assessment of the OCSB has been completed and treatment goals have been set, a treatment plan is individualised to the client, depending on the nature of their behaviour. The earlier case examples demonstrated the diversity involved in OCSB experiences. Each case would require a different treatment package, although all cases needed a focus on the intimacy issues that were a core maintaining factor. As such, the therapy approach is not currently amenable to manualising, which has led to the following treatment description being approached as more of a toolkit or collection of ingredients for IFT, rather than a recipe for how to use it. In addition, the therapy approach is specific to STNZ trained therapists and builds upon their sex therapy training, thus is not replicable by non STNZ trained therapists.

For these reasons the following description of IFT is non-sequential and cannot be a pre-planned step-by-step process. There is too much variability in the range of experiences clients may be having and so IFT is more of 'tool kit' of possible interventions that may be required, depending on the individual case. Treatment must be focused on using the here and now interactions, whilst the therapist also holds and works with all the problematic issues identified in the assessment. The treatment process is relational; identifying and treating enduring relational patterns whilst addressing all the factors identified in the assessment. The therapeutic relationship is a major vehicle for change.

First: couples work or individual therapy?

Before treatment commences, the decision of whether treatment will be individual or couples work (or a combination of the two) needs to be made. This is based on the client's (and their partners) ability to engage effectively, and their attachment style features here. If either or both are insecurely attached then they may not be able to

‘metabolise’ anything received in therapy or between sessions until this is addressed. Additionally, whether it is safe and productive for the relationship for the OCSB individual to reveal all details of their past behaviour needs to be considered. Sometimes a couple will present already knowing all or most of the details, which potentially allows couples therapy to proceed. If not some individual sessions may be indicated unless a partner is stipulating a need to know. Lastly, the extent to which assessment indicates the presence of problematic couples’ dynamics to be addressed needs consideration. Ideally, when it can be afforded, if individual therapy is indicated then asking another STNZ therapist to do the couples work or vice versa is optimal.

Therapy Domains

Note. These therapy domains are non-sequential and different components may fall under more than one domain.

1. Intimacy

This aspect of therapy is woven through all subsequent stages of therapy. Intimacy skill development is learnt during childhood attachment experiences, but for those who do not develop them well it is possible to acquire them later in life which is one of the aims of this treatment: developing an earned attachment, along with coming to terms with the omissions and commissions that have occurred previously in important interpersonal relationships either contributing to or undermining the development of these skills. In working with someone with OCSB, this may be the most important domain of skill development. The therapist does not formally teach them these skills though, as they have to be learned through experience to gain a felt sense. For example, to develop empathy, the client has to first receive empathy, later have it named, be asked to reflect on the experience, consider the possibility of giving it to another, trial that, reflect on how it went, continue to refine and learn (Salisbury, 2008).

It is important to differentiate working relationally from using a relational model to deliver therapy. Working relationally involves naming intimacy and intimacy skills as they arise during therapy, and looking at how the client might apply those skills in intimate relationships. In working to build on the client’s capacity for intimacy, therapy involves allowing a client to experience intimacy and then name for them what is happening, help them reflect on how that experience is for them, see if they have resistance/blocks/negative reactions to receiving intimacy, gauge their hunger levels for it, understand all that from an attachment perspective then to help them to be able to grow and understand those skills in themselves, reflect on what is involved, experience using them, identify and deal with any resistance/negative reactions to offering intimacy then prepare to use those skills in their intimate relationship, process their experiences, help client learn to differentiate between non-sexual and sexual intimacy. Developing the capacity for intimacy involves three stages that typically (but not necessarily) occur sequentially (Salisbury, 2008):

2. Examples of Intimacy Skills:

- How to feel, identify and express emotions.
- How to listen well and empathise.

- How to self soothe
- Differentiation/individuation
- Sensuality
- Co-operation
- Affection (non-sexual touching)
- Identifying and expressing needs
- Initiating (contact, conversation, sex)
- Conversational skills
- Self-reflection/awareness
- Boundaries
- Consideration
- Assertiveness
- Fair fighting
- Letting go
- Lovemaking
- Parenting/re-parenting yourself
- Loving
- Developing an internal cheerleader

Intimacy with Therapist

This aspect of therapy involves the client receiving acceptance, attunement, responsiveness, containment and the security of an intimate therapeutic relationship within which they can acknowledge, experience, express and resolve emotions and other body-based experiences. For example, anxiety/tension, openness to receiving love, and vulnerability. Grief work (nurturing never received, shame) and when necessary trauma resolution (giving responsibility for abuse back to perpetrators, resolving avoidance) may be part of this phase. Therapy focuses on undoing defences in the here and now connection of the therapeutic relationship as suggested by McCullough-Vaillant (1997). Any split-off 'bad' part of self can be identified and fear and distress about this contained.

The therapist's role is to provide well boundaried attachment conditions and psycho-education about the thoughts and behaviours involved in sexualising tension. Recognising, naming and holding the split off self while the client learns to acknowledge and care for this part of his self is another important role.

Intimacy with Self

This aspect of therapy involves the client moving from acting out sexual urges to identifying this pressure as anxiety and holding that to be able to work with it to achieve further trauma resolution work. Reflection on relationship with self is needed: often individuals parent themselves as they were parented, especially by the same sex parent. Moving from a neglectful or punitive stance to a self-nurturing one is important as is coming to terms with vulnerability and integrating split off parts. Exploration of boundaries, power, intimacy, learning to differentiate between what is manipulative behaviour and needing to be stopped and what are normal human and/or strategic behaviours that are essential may also be needed. Learning to use masturbation for self-pleasuring in response to arousal rather than for non-sexual purposes may be needed.

Intimacy with Others

This last and important aspect of therapy involves the client being able to establish effective intimate relationships with important people in their life. This includes addressing partner hurt and working to resume loving sex and re-establishing trust within a romantic relationship. In addition, the client may need to establish new ways to interact with other family members and friends, ensuring that boundaries are established between sexual and non-sexual closeness.

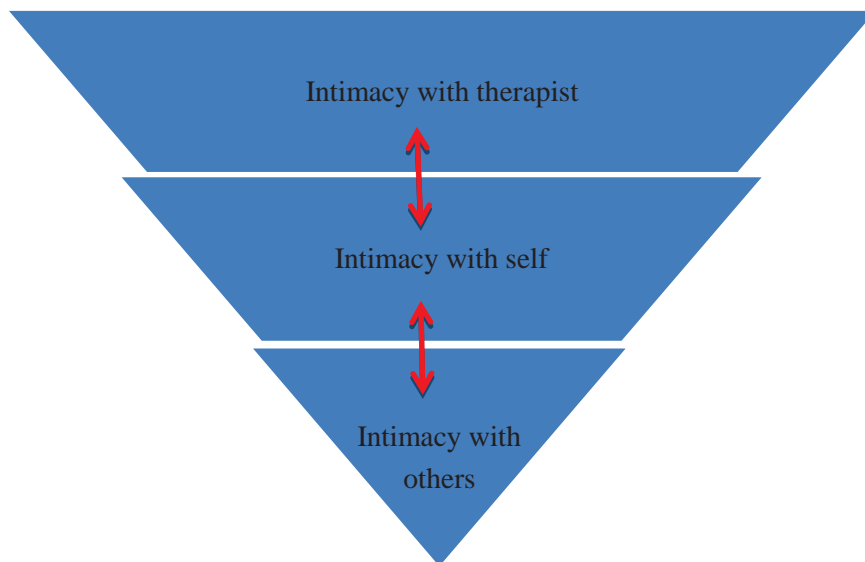


Figure 1. Developing the capacity for intimacy with therapist, self, and others.

2/ Gaining Control Over Sexual Behaviour

This major step in therapy is practical and involves interventions that specifically contain the current sexual symptoms. Psycho-education about OCSB is likely needed. Discussing the range of available treatments and arranging extra help if appropriate e.g. referral to concurrent marital therapy if necessary to hold the relationship and address relational factors. Establish a "bottom line" to sexual behaviour toward which the client can work. For example, limiting masturbation to once a day and not using pornography. Boundary work is often put in place such as negotiating the use of phone blocks, moving a computer to a public room, discarding paraphernalia such as pornography, cancelling subscriptions for pornography. The therapist will help the client make decisions about involving a partner if indicated.

3/ Here and Now Issues

A clear statement needs to be made by the therapist that affirms the client's recognition that their OCSB is destructive (or potentially destructive) behaviour which they need to learn to understand and alter. This stage involves coming to understand the triggers for OCSB. This might include clarifying thoughts, feelings, behaviours, and common precipitating stressors that might precede hypersexual behaviours. New ways to respond to these triggers are learnt.

In addition, work on interpersonal boundaries might occur which could involve assertiveness training, social skills training, relaxation/meditation, and learning to recognise and modulate stressful emotional states.

Consideration of a phase of celibacy can be discussed as a personal growth experience. (This can at least be an interesting conversation to have and introduces the idea that sex does not have to be a central feature of a rich and rewarding life). The therapist can educate the client on what a "healthy" sexual relationship is, which includes how to develop and maintain intimacy, how to remain single but not be depressed/lonely, and what is healthy sexuality.

The client may need to mourn their OCSB lifestyle and be told it is normal to have a period of flatness after stopping their OCSB (+/- 2 years). If referred for adjunctive medication as well as therapy it is necessary to monitor changes in sexual arousal and impulse control, assess concurrent depressive/anxious symptoms, and collaborate with other treating professionals.

4/ Developmental Factors

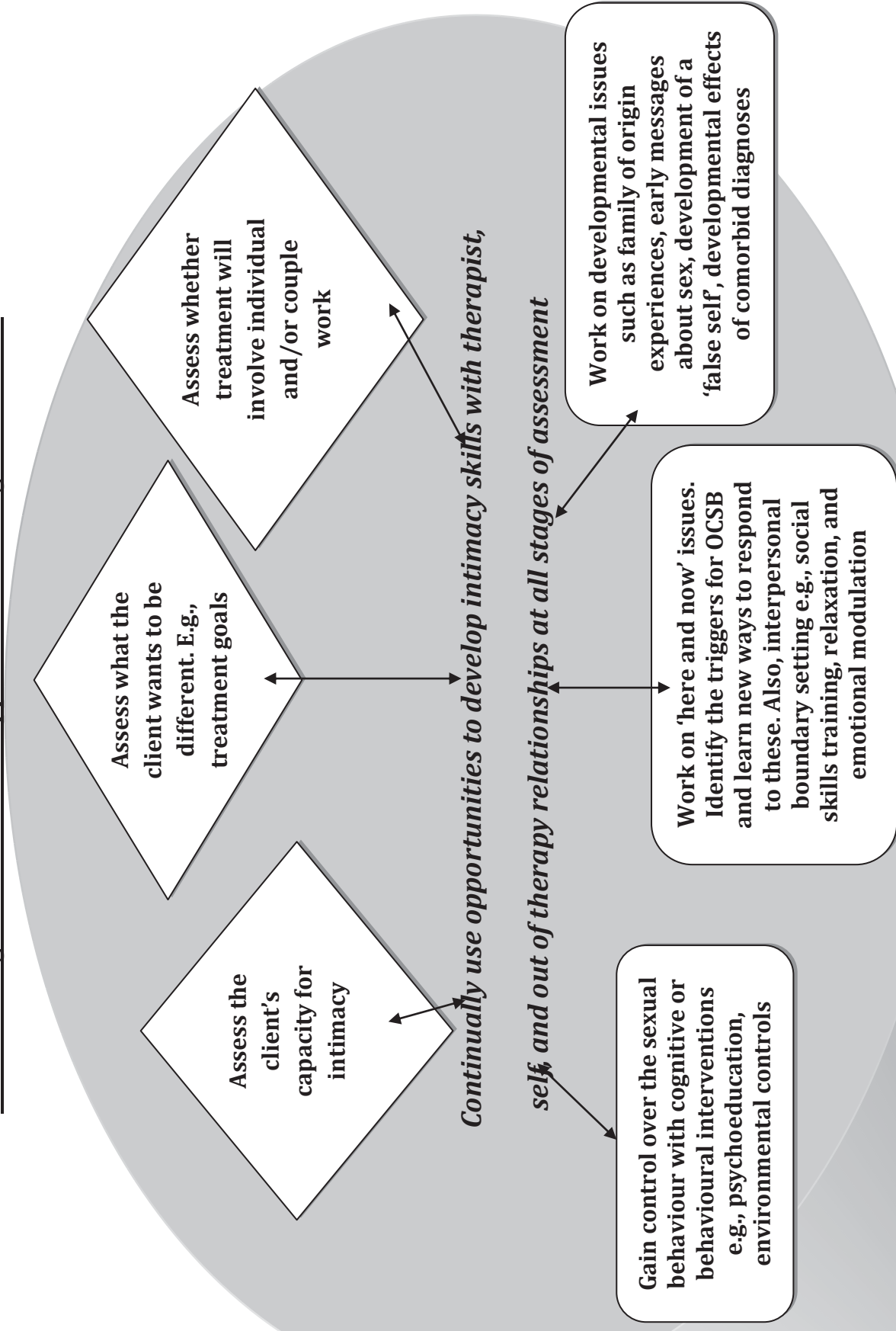
This aspect of therapy involves coming to terms with attachment and other family-of-origin experiences. This might include identifying events that may have shaped early sexual behaviours including physical/sexual abuse/neglect, premature sexualisation in relationships and working to resolve those. Identifying and working with the development and elaboration of the "false self" used to compartmentalise compulsive sexual behaviour and manage painful affects. The work here involves developing a sense of a real self. The therapist might look for possible psychodynamic or behavioural contexts for the meaning and perpetuation of sexual symptom formation. E.g. compulsive masturbation developing in response to parental rejection/criticism (comfort, expression of anger turned inwards) continued into an adult partnership where masturbation is used to meet own sexual needs and reject partner before they do the rejecting. Assessing the developmental effects of Axis I comorbid diagnoses.

5/Relapse Prevention

Two main aspects are considered here firstly relapse prevention of both the OCSB and relationship intimacy (creating/maintaining/developing healthy intimacy within the relationship). Secondly relational relapse prevention is covered via talking about the therapeutic closure as a rite of passage. This could include reviewing and reflection on the work (not content review but experiential), discussing closure of this relationship and boundaries around this regarding follow-up contact, as well as opening an invitation to re-engage in the future if future needs require it.

IFT relapse prevention can vary considerably from other forms of relapse preventions, such as that used in CBT, depending on the level of the relationship intimacy reached, the type of treatment given, duration of treatment etc. For example, sexual abuse trauma work would be followed by a review of the therapeutic process as this type of work is often long term requiring a trusting relationship and covering very intimate emotional and sexual content.

STNZ's Integrated Relational Approach to Treating Problem Sex



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APPENDIX C

OCSB Study Questionnaire



Section 1: BACKGROUND INFORMATION

Please tell us a bit about you in the space provided below. What is your...

Gender	_____
Age (years)	_____
Ethnicity	_____
Current relationship status	_____
Longest relationship (years)	_____
Sexual orientation	_____
Highest education level	_____
Annual gross income	_____

How often have the following experiences happened for you in the **past seven days**? Circle which responses apply to you and add any other experiences in the space provided (use more room on the back of this sheet if required):

- | | | | |
|--|-----|----|-----------------------------------|
| 1. Had sex with a partner (if YES, then how many times in the past 7 days) | YES | NO | How often _____ |
| 2. Masturbated (if YES, then how many times in the past 7 days) | YES | NO | How often _____ |
| 3. Sex in public settings (if YES, then how many times in the past 7 days) | YES | NO | How often _____ |
| 4. Viewed pornography (if YES, then how many hours in the past 7 days) | YES | NO | Hours _____ |
| 5. Fantasised about sex (if YES, then how many hours in the past 7 days) | YES | NO | Hours _____ |
| 6. Used the internet for sexual purposes (if YES, then how many hours in the past 7 days) | YES | NO | Hours _____ |
| 7. Paid for sex (if YES, then how many times in the past 7 days) | YES | NO | How often _____ |
| 8. Used recreational drugs (if YES, list which ones) | YES | NO | Which drugs _____ |
| 9. Consumed alcohol (if YES, select how many standard drinks consumed in the past 7 days)* | YES | NO | Standard drinks _____ |
| 10. If you have a partner, had sex with them in a satisfying way | YES | NO | How often _____ |
| 11. Other _____ | | | How often or how many hours _____ |

*One standard drink is a 330ml can of beer or a 100ml glass of table wine or a 30ml glass of straight spirits.

0 1 2 3 4 5 6 7 8 9 10

Not at all distressed Most distressed you've ever felt

Select the answer that most accurately describes your response by ticking a circle:

	Never	Rarely	Occasionally	Frequently	Very Frequently
1. How often have you had trouble controlling your sexual urges?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Have you felt unable to control your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. How often have you used sex to deal with worries or problems in your life?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. How often have you felt guilty or shameful about aspects of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. How often have you concealed or hidden your sexual behaviour from others?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. How often have you been unable to control your sexual feelings?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. How often have you made pledges or promises to change or alter your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. How often have your sexual thoughts or behaviours interfered with the formation of friendships?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. How often have you developed excuses and reasons to justify your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. How often have you missed opportunities for productive and enhancing activities because of your sexual activity?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. How often have your sexual activities caused financial problems for you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. How often have you felt emotionally distant when you were engaging in sex with others?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. How often have you had sex or masturbated more than you wanted to?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 3: CONSEQUENCES OF SEXUAL BEHAVIOUR

The following is a set of questions that asks about the consequences of your sexual behaviour. Each pair of questions asks about consequences over the last 90 days. Select the answer that best applies to you by ticking the circle that applies:

	Never	Rarely	Sometimes	Often	Always
1. How often have you gotten an STD because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. How often have you missed important social events because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. How often have you felt guilty or ashamed because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. How often have you had unprotected sex because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. How often have your family or friends been worried or complained about your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. How often has a love relationship been harmed by your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. How often have you missed days of work or school because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. How often have you spent or lost too much money because of your sexual behaviour (e.g., porn)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. How often has your physical health been harmed by your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. How often have you stopped hanging out with friends as much because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. How often have you felt depressed or anxious because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. How often have you taken foolish risks when you were engaged in sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. How often has a friendship or close relationship been damaged because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. How often have you had sex outside a relationship?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. How often have you failed to meet commitments because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. How often have you had legal trouble because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. How often has your sexual behaviour gotten in the way of your personal growth?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. How often did you do impulsive things that you had regretted because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. How often have you not been able to find a relationship because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. How often has your quality of work suffered because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. How often has your spiritual or moral life been harmed by your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. How often have you lost interest in activities and hobbies because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. How often has your sexual behaviour harmed your ability to stay in a relationship?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. How often has your sexual behaviour harmed your ability to be intimate non-sexually?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following is a set of questions that asks about the consequences of your sexual behaviour. Each pair of questions asks about consequences **over your lifetime**. Select the answer that best applies to you by ticking the circle that applies:

	Never	Rarely	Sometimes	Often	Always
1. How often have you gotten an STD because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. How often have you missed important social events because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. How often have you felt guilty or ashamed because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. How often have you had unprotected sex because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. How often have your family or friends been worried or complained about your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. How often has a love relationship been harmed by your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. How often have you missed days of work or school because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. How often have you spent or lost too much money because of your sexual behaviour (e.g., porn)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. How often has your physical health been harmed by your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. How often have you stopped hanging out with friends as much because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. How often have you felt depressed or anxious because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. How often have you taken foolish risks when you were engaged in sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. How often has a friendship or close relationship been damaged because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. How often have you had sex outside a relationship?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. How often have you failed to meet commitments because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. How often have you had legal trouble because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. How often has your sexual behaviour gotten in the way of your personal growth?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. How often did you do impulsive things that you had regretted because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. How often have you not been able to find a relationship because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. How often has your quality of work suffered because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. How often has your spiritual or moral life been harmed by your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. How often have you lost interest in activities and hobbies because of your sexual behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. How often has your sexual behaviour harmed your ability to stay in a relationship?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. How often has your sexual behaviour harmed your ability to be intimate non-sexually?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 4: RELATIONSHIPS

When responding to the following relationship questions, please **think about your current or most recent intimate relationship**. Please read each of the following statements and rate the extent to which you believe each statement best describes your relationship by ticking a circle:

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me
1. I am comfortable having my partner depend on me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I find it easy to get emotionally close to my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. It is very important to me to feel independent.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I find it difficult to depend on my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I am comfortable without a close emotional relationship.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Romantic partners often want me to be closer than I feel comfortable being.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I am comfortable depending on my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I find it difficult to trust my partner completely.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I want an emotionally close relationship.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I worry that my partner doesn't value me as much as I value them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. My desire to be close sometimes scares partners away.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I am nervous when my partner gets too close to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I prefer not to have my partner depend on me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I am uncomfortable being close to my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I prefer not to depend on my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. I worry about having my partner not accept me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. I find it relatively easy to get close to my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. I want to become one with my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. I worry that I will get hurt if I allow myself to get too close to my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me
20. I am not sure that I can always depend on my partner to be there when I need them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. I want to be completely emotionally intimate with my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. I worry about being alone.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. I often worry that my partner doesn't really love me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. I worry about my partner getting too close to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. My partner is never there when I need them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. It is very important to me to feel self-sufficient.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. I often worry that my partner won't want to stay with me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. I worry about being abandoned.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. I find that my partner is reluctant to get as close as I would like.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. I know that my partner will be there when I need them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 5: CLOSENESS

Imagine you are in a close relationship. Respond to the following statements as you would **if you were in that close relationship**. Rate how characteristic each statement is of you by ticking the circle that applies. (Note. In each statement, "x" refers to the person who would be in the close relationship with you.)

	Not at all	A little bit like me	Somewhat like me	Quite a bit like me	Extremely like me
1. I would feel uncomfortable telling x about things in the past that I have felt ashamed of.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I would feel uneasy talking with x about something that has hurt me deeply.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I would feel comfortable expressing my true feelings to x.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. If x were upset I would sometimes be afraid of showing that I care.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I might be afraid to confide my innermost feelings to x.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I would feel at ease telling x that I care about him/her.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

		Not at all	A little bit like me	Somewhat like me	Quite a bit like me	Extremely like me
7.	I would have a feeling of complete togetherness with x.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	I would be comfortable discussing significant problems with x.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	A part of me would be afraid to make a long-term commitment to x.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	I would feel comfortable telling my experiences, even sad ones, to x.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11.	I would probably feel nervous showing x strong feelings of affection.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12.	I would find it difficult being open with x about my personal thoughts.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13.	I would feel uneasy with x depending on me for emotional support.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14.	I would not be afraid to share with x what I dislike about myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15.	I would be afraid to take the risk of being hurt in order to establish a closer relationship with x.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16.	I would feel comfortable keeping very personal information to myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17.	I would not be nervous about being spontaneous with x.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18.	I would feel comfortable telling x things that I do not tell other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19.	I would feel comfortable trusting x with my deepest thoughts and feelings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20.	I would sometimes feel uneasy if x told me about very personal matters.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21.	I would be comfortable revealing to x what I feel are my shortcomings and handicaps.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22.	I would be comfortable with having a close emotional tie between us.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

		Not at all	A little bit like me	Somewhat like me	Quite a bit like me	Extremely like me
23.	I would be afraid of sharing my private thoughts with x.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24.	I would be afraid that I might not always feel close to x.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25.	I would be afraid that x would be more invested in the relationship than I would be.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26.	I would feel comfortable about having open and honest communication with x.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27.	I would sometimes feel uncomfortable listening to x's personal problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28.	I would feel at ease to completely be myself around x.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29.	I would feel relaxed being together and talking about our personal goals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following statements as they apply to your **past** relationships by ticking the circle:

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Extremely like me
30.	I have shied away from opportunities to be close to someone.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31.	I have held back my feelings in previous relationships.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32.	There are people who think that I am afraid to get close to them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33.	There are people who think that I am not an easy person to get to know.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34.	I have done things in previous relationships to keep me from developing closeness.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

THANK YOU!

Thank you for taking the time to complete this questionnaire. Your answers are invaluable in understanding whether the treatment has helped you. Should you have any questions about this questionnaire, please contact the researcher at OCSB@live.com. Please return the questionnaire anonymously in the pre-paid envelope to the researcher.

This project has been reviewed and approved by the Health and Disability Ethics Committee, Central Region: 11/09/050. If you have any concerns about the conduct of this research, please email the central_ethicscommittee@moh.govt.nz

APPENDIX D

Treatment integrity survey

Participant ID:

Date:



OCSB Treatment Outcome Study

On the scale below, how much do you think you followed the STNZ Relational Approach for Problem Sex in treating this case?

0 1 2 3 4 5 6 7 8 9 10

Not at all

Completely

Below is a list of therapeutic steps that are covered within STNZ's Relational Approach to Problem Sex. Please identify to what extent you believe you implemented each of these steps during this case:

Assessment:	N/A	Not at all	Somewhat	Completely
1. Completed a biopsychosocial assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Decided that relationship work was indicated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Determined an insecure attachment history	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Determined a secure attachment history	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gained control over sexual behaviour:				
5. Provided psychoeducation about OCSB	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Took steps to contain the OCSB with behavioural limits and goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Monitored changes in arousal patterns, impulsive, or problematic behaviours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Participant ID:

Date:

Here and now issues:

- | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| 8. Worked on understanding and addressing triggers | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 9. Helped to let go and make farewells | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10. Did grief work | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 11. Helped to recognise and modulate stressful emotional states | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 12. Taught relaxation or meditation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 13. Helped develop appropriate boundaries | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 14. Improved social adjustment | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 15. Identified and modified beliefs | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 16. Did assertiveness work | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 17. Rehearsed new behaviours | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Developmental factors:

- | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| 18. Identified and worked on developmental issues | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 19. Integrated split off or false parts to develop a genuine self | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 20. Addressed relational trauma | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 21. Identified and treated enduring relational patterns | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 22. Addressed defences | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 23. Addressed dissociation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 24. Worked on attachment issues including family of origin omissions or commissions | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Participant ID:

Date:

Developed capacity for intimacy:

- | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| 25. Psychoeducation about healthy sexual relationships | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 26. Taught emotional awareness | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 27. Developed emotional expression | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 28. Developed emotional regulation (self-soothing) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 29. Worked on intimacy with therapist | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 30. Worked on intimacy with self | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 31. Worked on intimacy with others | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 32. Worked on developing compassion and learning to nurture self | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 33. Worked on differentiation and individuation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 34. Taught self-reflection and awareness | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 35. Taught co-operation and consideration | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Couple work (if applicable):

- | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| 36. Worked on initiating (contact, conversation, and sex) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 37. Worked on loving and affection | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 38. Worked on non-sexual touch | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 39. Worked on love making | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 40. Work on learning how to get pleasure and satisfaction from sex | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 41. Addressed partner hurt | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Participant ID:

Date:

Additional:

- | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| 42. Used adjunctive pharmacotherapy | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 43. Reduced alcohol use | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 44. Reduced other substance use | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 45. Identified specific precursors to relapse | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Is there anything else you would like to comment on regarding application of the therapy approach to this case? (More room is available over the page).

Adjunct therapy referrals:

Thank you for your time 😊

APPENDIX E

Press release



INVITATION TO PARTICIPATE IN TREATMENT OUTCOME RESEARCH

I am a Massey University student conducting research through the School of Psychology as part of a Doctorate in Clinical Psychology. I am seeking participants for a treatment outcome study on out-of-control sexual behaviour (OCSB).

What is OCSB? It is commonly called "sexual addiction" and can include a wide range of sexual behaviours that may cause distress to you and/or your partner, you may have tried to stop or cut back on but have been unable to, and this is negatively impacting on your life (i.e., social/work/relationships/finances).

What does the study involve? The study involves an assessment and treatment plan that will be individualised to you. Weekly face-to-face appointments with a clinical psychologist will help you reduce your OCSB and there will be some anonymous questionnaires to fill in each week that will help determine whether the treatment has helped you. These findings will be written up as part of a Doctorate in Clinical Psychology thesis with no identifying details about you included.

Who can apply to participate? If you are a man who is aged 18 or older, you think you have OCSB, you live in the Auckland/Palmerston North region, and you can attend twelve, hour-long appointments at the fee of \$185 per week then you are eligible to apply for participation. To find out more information confidentially please contact OCSB@live.com and you an information sheet will be sent to your email address.

This project has been reviewed and approved by the Health and Disability Ethics Committee, Central Region: 11/09/050. If you have any concerns about the conduct of this research, please email the central_ethicscommittee@moh.govt.nz

13.11.2011

APPENDIX F

Newspaper articles

Sex addicts wanted for study

MICHAEL FORBES

Last updated 05:00 29/02/2012

If you are addicted to sex – be it risky, online, or paid for – then Massey University might be able to help.

Psychology student Karen Faisandier is looking for 20 Kiwi males, over the age of 18, to take part in her doctoral study on how best to treat out-of-control sexual behaviours, or OCSB.

Ms Faisandier defines such behaviour as a difficulty regulating sexual thoughts, feelings or behaviours, to the extent that they cause distress or negative consequences on you or those around you.

Treatment is commonly approached in the same way you would a drug addiction, through group therapy and 12-step models. But Ms Faisandier hopes her research will uncover new methods.

"Internationally, there isn't a lot of research looking at how successful those treatments are, and the few studies that have been done show there's a high drop-out rate or high relapse rate."

Without wanting to reveal her actual methods, Ms Faisandier said her study would look at repairing the relationships of people suffering from OCSB, rather than focusing on the individual.

As part of her honours degree in 2010, Ms Faisandier undertook the first New Zealand study of people with out-of-control sexual behaviour. She found the majority of "sex addicts" actually shied away from being intimate with their partners and found the concept of relationships threatening.

With such a sensitive subject, Ms Faisandier said the confidentiality of her test subjects was held in the highest regard, which made them very forthcoming.

"With my last study, I had quite a lot of interest. About 600 people filled out my questionnaire on the first night."

OPPORTUNITY

If you are a man, aged 18 or older, who thinks he has OCSB and can attend 12 one hour-long appointments in either Auckland or Palmerston North then contact OCSB@live.com.

There will be some cost.

- [The Dominion Post](#)

Wanted to study: out-of-control men

The search for volunteers to take part in research into the treatment of out-of-control sexual behaviour is still under way.

The research is the work of Massey University doctoral candidate Karen Faisandier, who said the behaviour was more commonly, and incorrectly, labelled as sex addiction.

In total 12 volunteers were sought for the study in Auckland and Palmerston North, but while all spots in the City of Sails were filled, Ms Faisandier was still looking for two volunteers in Manawatu.

She was looking for men over the age of 18 "who think they may have a problem". More specifically they might exhibit any of a wide range of sexual behaviours that could cause distress to themselves or their partners.

Those selected for the course would attend treatment sessions.

Ms Faisandier said her research had received a \$10,000 grant since it was announced in February, which had reduced the cost of taking part from \$185 to \$75.

"That should allow more people to access it," she said. "I only need a couple of people."

Ms Faisandier, whose doctorate is in clinical psychology, said the study would see if treatment reduced the men's "out-of-control behaviour". Her doctoral research follows a research project in 2010 when Ms Faisandier surveyed more than 600 men in a study on sexual behaviour and its impact on relationships.

Ms Faisandier said her research was "well under way at this point" and due to be completed at the end of this year.

Details about the men involved in the study would be kept confidential. To find out more about the research project email Ms Faisandier at OCSB@live.com.

- **The Manawatu Standard**

Sex addicts slack in coming forward for treatment

By [Russell Blackstock](#)

4:30 AM Sunday Apr 1, 2012

Massey University student Karen Faisandier. Photo / Graeme Brown

A researcher has been forced to offer cut-price therapy deals to Kiwi sex addicts to coax them into a study.

Massey University student Karen Faisandier appealed for 20 men over the age of 18 to take part in research into treatment for the problem, known as OCSB, or out-of-control sexual behaviour.

Faisandier, 30, told the *Herald on Sunday* she had plenty of inquiries and a number of volunteers had stepped forward. But she believed some men were put off by the price. Up to a dozen weekly consultations with a psychologist from Sex Therapists New Zealand cost \$185 an hour. Faisandier has halved the fee after securing a \$10,000 funding grant from a private trust.

She said she hoped the price reduction would encourage more men to come forward.

"We had a lot of initial interest and a number of men have signed up," she said.

"But cost was a barrier and we still have room for more."

Faisandier, who has a doctorate in clinical psychology, was researching whether treatment reduced mens' out-of-control behaviour.

In 2010, she surveyed more than 600 men about their behaviour and its impact on relationships.

She found those with problematic sexual behaviour more likely to feel threatened by or anxious about intimate relationships.

She said her latest research was aimed only at people who genuinely wanted help.

An increasing number of males were becoming hooked on online pornography.

"In terms of addiction, the internet is the crack cocaine of sex," she said.

If you are a man, aged 18 or older, who thinks he has OCSB and can attend appointments in either Auckland or Palmerston North, contact OCSB@live.com.

The shame of being addicted to sex

Hit sex addiction movie *Shame* is screening in New Zealand and, for one recovering addict from Wellington, the condition is all too real.

The long-time married man, who asked not to be named, said he was hooked on sex with prostitutes for 20 years. He spent "many" thousands of dollars bedding hundreds of working girls.

"I first started visiting escorts as a teenager and thought it would all stop after I got married," he admitted.

"I did stay away from the scene for a while but before long I was back.

Brimming with self-loathing, he finally reached rock bottom. His wife eventually discovered his sleazy habit, but stood by him after accepting he had an addiction.

He attended a self-help group and has never looked back.

- **Herald on Sunday**

APPENDIX G

Participant Information Sheet


MASSEY UNIVERSITY
COLLEGE OF HUMANITIES
AND SOCIAL SCIENCES
TE KURA HUMANIYATI
TE KURA AKAHANGA

 **SEX THERAPY**
NEW ZEALAND LTD (STNZ)
Specialising in intimacy and sexuality



Intimacy-Focused Therapy for Out-of-Control Sexual Behaviour

23rd March 2011

Ethics Approval Number: **CEN/11/09/050**

My name is Karen Faisandier and I am a Massey University student in the School of Psychology (Manawatu campus) conducting this study as part of a Doctorate in Clinical Psychology. The academic supervisors for this project are Dr Joanne Taylor from the Psychology Department of Massey University, and Dr Shane Harvey from the Massey Psychology Clinic. This project is in collaboration with the nationally available service Sex Therapy New Zealand Ltd (STNZ), which is co-directed by the study's clinical supervisor Robyn Salisbury (clinical psychologist and sex therapist).

What is this research about?

This research follows on from my 2010 study which investigated differences in relationship styles amongst New Zealanders with different levels of Out-of-Control Sexual Behaviour (OCSB-commonly referred to as sexual "addiction"). This study found that those reporting higher OCSB also often reported higher anxiety towards or avoidance of closeness and intimacy. Based on this, my current research aims to test a therapy approach for people with OCSB. This will be done by providing up to 12 appointments at the cost of \$79 per appointment for 12 men with OCSB. The treatment will involve individual appointments with a clinical psychologist who will work on reducing OCSB symptoms and the underlying causes. Those who participate in the study will complete a 45 minute questionnaire before

and after the 12 sessions of therapy; and at one, three, and six months after therapy has finished. OCSB will be measured each week to track the success of therapy. The responses to these questionnaires and the rates of OCSB as therapy progresses will demonstrate whether the therapy approach has been successful in helping reduce OCSB. It is expected that these research findings will help others with OCSB in the future.

What is OCSB?

OCSB can include a wide range of sexual thoughts/feelings/behaviours but usually involves at least one of the following three things:

- 1) Your sexual behaviour is causing distress to you or your partner.
- 2) You have tried to stop or cut back on certain types of sex but have been unable to.
- 3) Your sexual behaviour is negatively impacting on your life (i.e., social/work/relationships/finances).

Who can participate?

If you are a man aged 18 or older, you think you have OCSB, you live in the Auckland or Palmerston North region, and between February and November 2012 you can attend twelve hour-long appointments at the fee of \$79 per session (total cost \$948), and are available for follow up contact at 1, 2, and 3 months post therapy, then you are eligible to apply. However, if you have current alcohol or other substance dependence, severe mental health problems including feeling suicidal, or your OCSB involves acts with children then you will not be eligible for this type of therapy, and should instead contact Lifeline on 0800 543 354 if you wish to seek help.

Confidentiality:

You may confidentially contact the researcher at OCSB@live.com to ask questions about the content of the questionnaire and therapy before participating. Any information you provide if you contact the researcher will be securely stored and only accessed by the researcher, the research supervisors, and the treatment provider if you agree to go on and participate. Full informed consent will be sought from all participants of the study, meaning that you will sign a form to show you understand the study and agree to participate. All participants have the right to withdraw from the study at any time, without having to provide a reason for doing so. Any data collected up until the time of withdrawing may be included in the study. Continued therapy with the psychologist will be available to you at the fee of \$79 per session once the 12 appointments are finished.

All participant data will be securely stored in a locked filing cabinet at Massey University for ten years and then destroyed. Data will be presented as part of the Doctorate in Clinical Psychology thesis but personal details will be altered to ensure anonymity. The study's findings will be provided to all participants on completion of the researcher's doctoral degree in 2013.

Thank you for taking the time to read this Information Sheet and find out more about the study. If you have additional questions about participation please contact the researcher confidentially at OCSB@live.com or contact the supervisors Dr Joanne Taylor on J.E.Taylor@massey.ac.nz, Dr Shane Harvey on S.T.Harvey@massey.ac.nz, or Robyn Salisbury on Robyn.Salisbury@xtra.co.nz

This project has been reviewed and approved by the Health and Disability Ethics Committee, Central Region: 11/09/050. If you have any concerns about the conduct of this research, please email the central_ethicscommittee@moh.govt.nz

Thank you from the research and supervision team,

Karen Faisandier, Joanne Taylor, Shane Harvey, and Robyn Salisbury

APPENDIX H

Participant consent sheet

Date:



Intimacy-Focused Therapy for Out-of-Control Sexual Behaviour

PARTICIPANT CONSENT FORM

This consent form will be held for a period of ten years

I have read the Information Sheet (dated 23rd March, 2011) for volunteers participating in an intimacy-focused therapy for 'out-of-control' sexual behaviour. The details of the study have been explained to me by the researcher and my questions have been answered to my satisfaction. I understand that I may ask further questions at any time.

I have had time to consider whether to take part in the study and had the opportunity to use family/whanau support.

I understand that my participation is voluntary and I can choose to stop participating at any time.

I understand that the therapy costs \$79 per appointment and I agree to pay this fee.

I understand that my participation is confidential and that any identifying details will be removed from the report and any released findings or publications.

I understand that therapy will be stopped if it should appear to be harmful to me, and have been informed of who I can contact if I have any questions about the therapy or questions in general.

19.07.2011

Date:

☐ Yes, I wish to receive a copy of the results (*Please note there may be a significant delay between data collection and publication of results*)

☐ Alternatively, I would like the researcher to discuss the outcomes of the study with me.

I agree to participate in this study under the conditions set out in the Information Sheet. In the event that I withdraw from the study all data collected up until the time of withdrawal may be included in the study.

I _____ hereby consent to take part in this study.

Date:

Signature:

Full name of researcher:

Karen Faisandier


Contact phone number for researcher:

OCSB@live.com

Project role:

Student researcher

Signature:



Date:

11 June 2012

This project has been reviewed and approved by the Health and Disability Ethics Committee, Central Region: 11/09/050. If you have any concerns about the conduct of this research, please email the central_ethicscommittee@moh.govt.nz

19.07.2011

APPENDIX I

Letter to therapists



8th February 2012

Dear Robyn, Ally, and Paula,

Thank you so much for being one of the treatment providers in my research. I'm thrilled to have each of you involved and I hope that you will find it an interesting experience (and your involvement should be able to count towards your continuing education for registration).

I decided to write a letter covering many of the things we have discussed regarding the study, so you have all the details you will need in one place. And you can always phone or email whenever new questions or concerns arise (OCSB@live.com).

Firstly, the planning stage of the project is complete and ethically approved! The supervision team involves Dr Joanne Taylor as the primary academic support, Dr Shane Harvey for secondary academic support, and of course Robyn who is my clinical supervisor. Together we have narrowed down the project to a feasible and valid evaluation of STNZ's OCSB Intimacy-Focused Therapy Approach. Unfortunately I have been unlucky with funding applications so far and have one last grant to hear back from, but it looks like participants will be self-funding therapy. To standardise the cost each session will be \$185, I'm aware this is slightly less than some providers' usual fees and greatly appreciate your willingness to reduce the cost for research purposes.

The study

Question: Is STNZ's Intimacy-Focused Therapy an effective treatment for men with OCSB?

Hypothesis: That participants' OCSB, associated distress, and negative consequences will reduce and secure attachment and intimacy will increase after the therapy, and be maintained at follow-up.

Who are the participants?

I'm advertising via local press release for 12 males over the age of 18 who think they have OCSB to contact me and find out more about participation in a treatment outcome study. I will run through what is involved with them, check their eligibility (not suicidal, substance dependant, sex offender, or acute mental health), answer their questions, and get consent sheets signed before checking with you that I can refer them on.

Method

It's called a non-concurrent multiple baselines with between therapist replication design which means that participants are monitored over differing wait periods before starting therapy. This controls for confounding effects such as the passage of time. I'm also using between-therapist replication which means participants

are allocated to different therapists to control for therapist effects. The good thing about this method is that it is flexible to the nature of real world referrals as the baselines do not have to run concurrently (i.e., participants can trickle in over a few weeks rather than all at once).

Referrals to you

Once each participant contacts me they will be allocated to their therapist and randomly (depending on the urgency of their referral) allocated into a baseline of 3, 5, or 7 weeks and referred to you immediately to book their appointment. I will do this via phone or email (whichever you prefer) and provide you with the week in which that appointment is needed to be booked. Hopefully you will be able to accommodate as there will be 3-7 weeks' notice while the baseline passes (we will trouble shoot together in the event that an appointment isn't possible!). It is of course up to your discretion to turn down any referral that you feel unable to work with. Once a client has begun therapy please keep a record of the dates of their sessions for me (either send in as you go or else at the end of therapy). Then when each person has finished therapy (or dropped out early!) you just need to notify me so I can finish up my data collection with them and prepare for follow-ups. There will be a brief survey for you to complete stating how you felt you had adhered to the therapy approach Principles and modality. ***So to sum that up, I contact you to book an appointment and you only need to contact me to notify of session dates and end of therapy and to pass on your therapy survey response. Clients pay you directly as per usual.***

What happens at my end?

I will be administering the psychometrics at the start of each participant's baseline, and also at the end of their therapy, as well as at 1, 2 and 3 months follow-up points. In addition, each week the participants will be sending me their problem reporting – this is a sheet of their OCSB behaviours (frequency and duration) to reduce (e.g., pornography viewing; 6 times a week/2 hours per time). I won't be showing this data to you until the end of therapy when I give a summary of results so as to keep the study blind. Each participant will be provided with an ID number to use when they complete their weekly and psychometric reporting and this will be entered into an Excel data base where their responses will be stored and analysed.

Thank you once again for being involved in the study as a therapy provider. I'm really pleased that it has worked out to be three providers I have known from back when STNZ had just begun and I'm confident that we'll be able to run this study smoothly and generate some exciting findings to disseminate.

Questions are always welcome and any concerns about the study or procedures do let me know as I really value your collective knowledge as clinical psychologists as well as therapy providers.

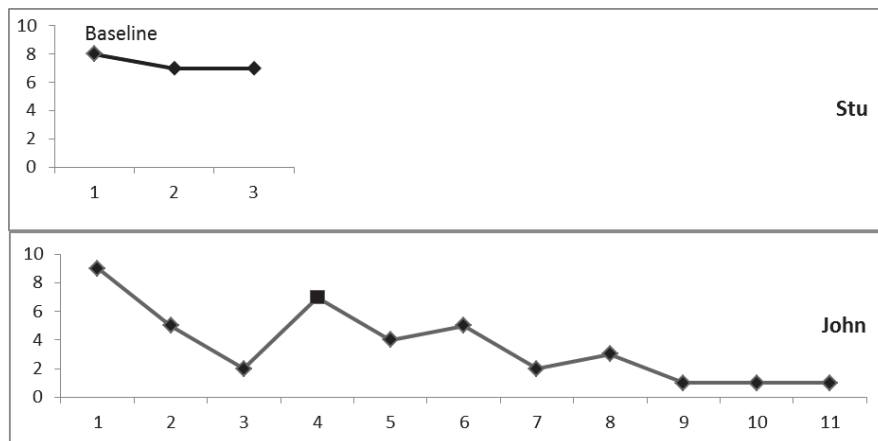
I will be in touch with the advert recruitment launch date which will be around the week of 20th February.

Warmest regards
Karen

Appendix J

Data for participants who dropped out

Stu's distress was linear indicating a consistently high level of distress over baseline while John's distress trended down from very high to very low over baseline (see Figure 11). The reduction in John's distress may have accounted for his reduced desire to participate in therapy due to no longer perceiving sexual behaviour to be a problem.



Assessment Point

Figure 11. Subjective Units of Distress about sexual behaviour over baseline weeks for Stu and John.

*0 = no distress 10= most distress (pertaining to sexual behaviour in the past 7 days).

In terms of the frequency of sexual behaviours, Figure 12 shows relatively stable baselines for all self-reported behaviours. Both Stu and John reported relatively few incidences of masturbation or partner sex and indicated no "other" sexual behaviour.

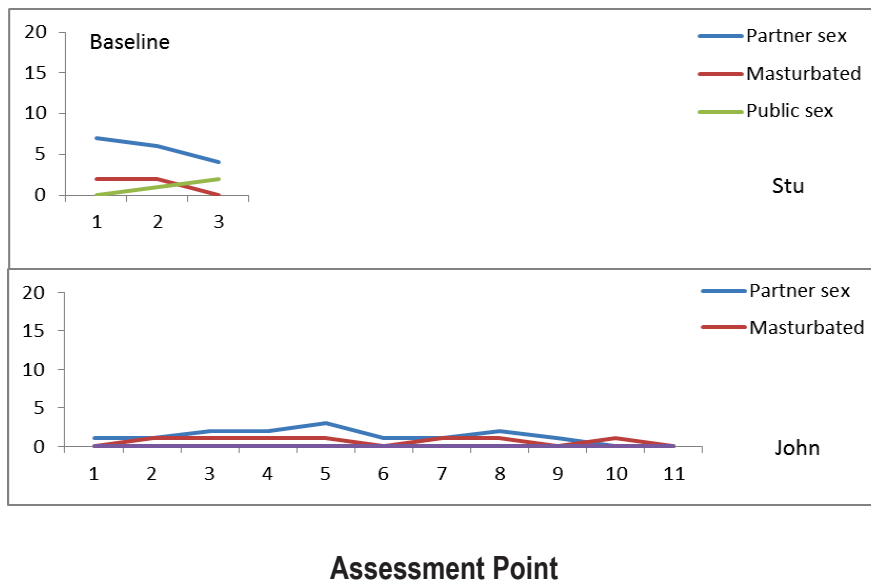


Figure 12. Frequency of sexual behaviour per week of baseline weeks for Stu and John.

In terms of reported hours engaged in sexual behaviour, Figure 13 shows that Stu's time spent fantasising about sex was very high with an upward trend following week one that remained stable for the rest of baseline. John's baseline scores were also stable but very low, with him reporting relatively less time engaging in sexual behaviours over baseline which involved just a few minutes per week, although he was quite distressed.

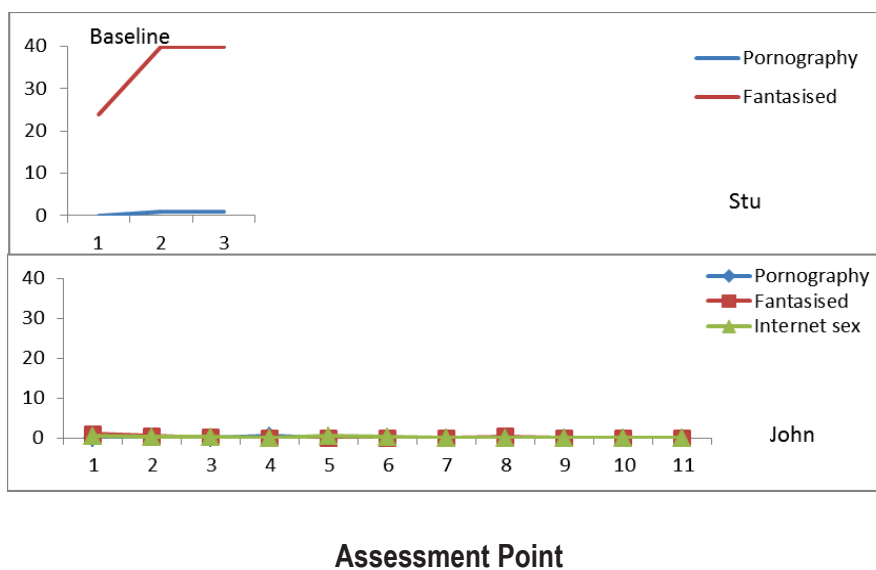


Figure 13. Hours of sexual behaviour over baseline weeks for Stu and John.

In addition to the weekly self-reported behaviours, baseline data for the CSBI, CSBCS, FIS, and RSQ was recorded and is presented in Table 9 for these two participants for completeness. Stu had a low level of control over sex, moderate negative consequences from sex, and a relatively high fear of intimacy, with varied attachment scores. John reported a high level of control over sex, relatively few negative consequences relating to sex, as well as a lower fear of intimacy. His attachment scores were remarkably similar across all four subscales.

Table 9

Baseline psychometric scores for Stu and John

	Stu	John
CSBI ^a	32	47
CSBCS ^b	38	10
FIS ^b	72	47
RSQ:		
<i>Secure</i> ^a	2.40	2.20
<i>Fearful</i> ^b	1.75	2.00
<i>Dismissing</i> ^b	2.60	2.00
<i>Preoccupied</i> ^b	2.75	2.00

Note. CSBI = Compulsive Sexual Behaviour Inventory (range 13-65), CSBCS = Compulsive Sexual Behaviour Consequences Scale (range 0-84), FIS = Fear of Intimacy Scale (range 35-175), RSQ = Relationship Scale Questionnaire (subscales range 0-5).

^a = lower scores indicate better control over sexual behaviour and/or higher secure attachment. ^b = lower scores equal less negative consequences from sex, less fear of intimacy, and/or less insecure attachment.

APPENDIX K

Brinley plots comparing baseline to 2-month outcomes

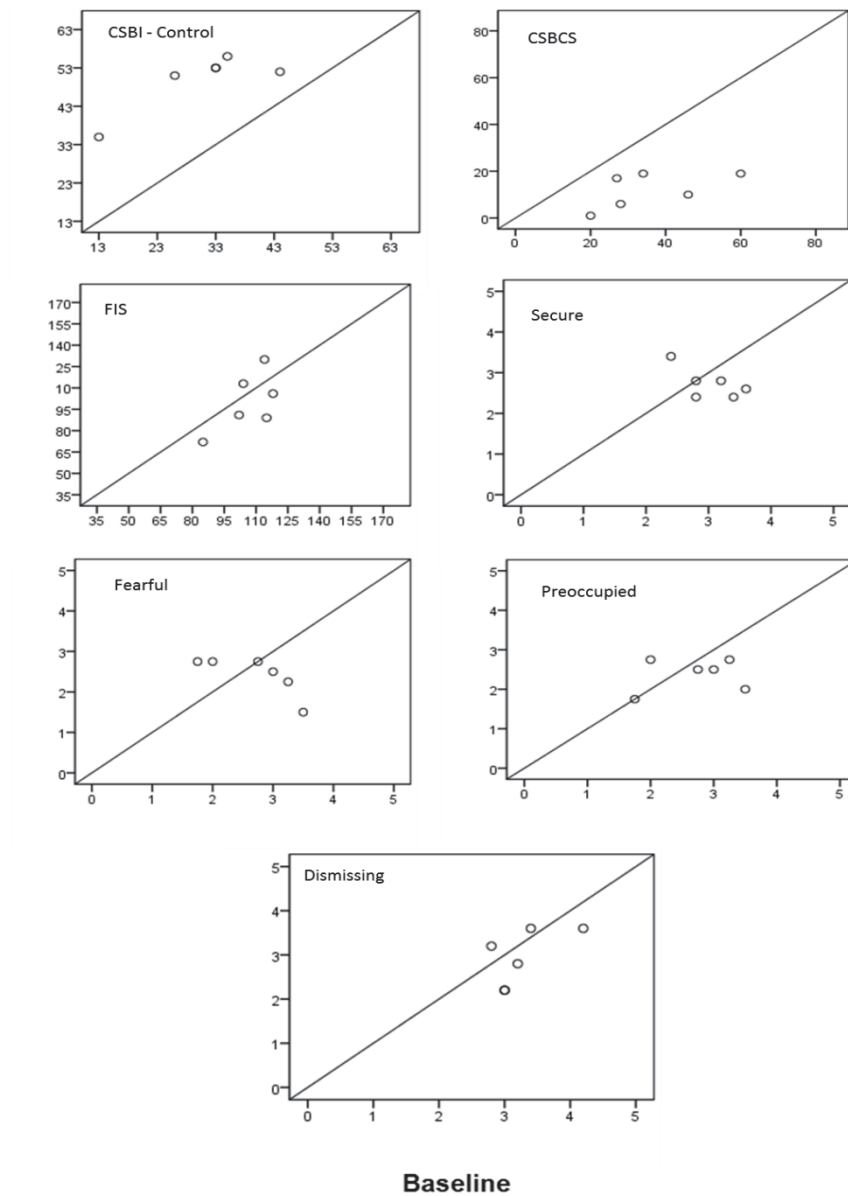


Figure 14. Modified Brinley plots of summarised group data for Compulsive Sexual Behaviour Inventory – Control Scale (CSBI), Compulsive Sexual Behaviour Consequences Scale (CSBCS), and Fear of Intimacy (FIS) across baseline and 2-month follow-up. Improvement is observed where results for CSBCS, FIS, RSQ – Preoccupied and Dismissing reduce and results for CSBI and RSQ - Secure increase.