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Predicting perpetration of intimate partner cyberstalking: Gender and the Dark Tetrad

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ABSTRACT

Stalking behaviours performed against former and current intimate partners account for the majority of reported stalking situations, are continuously increasing, and can result in physical, psychological, and financial distress. The rise of technology has led to increased access to personal information and thus has facilitated the ease of stalking an intimate partner online (i.e., cyberstalking). However, the literature indicates a lack of clarity regarding predictive factors of perpetration of intimate partner cyberstalking behaviour. The current study aimed to predict perpetration of intimate partner cyberstalking from the variables of gender and Dark Tetrad personality traits (i.e., Machiavellianism, narcissism, psychopathy, and sadism). Participants ($N = 689$; 30% men, 70% women) completed an online questionnaire. Gender was a significant predictor of intimate partner cyberstalking, with women being more likely to engage in this behaviour. All Dark Tetrad traits were found to be significant predictors of intimate partner cyberstalking. Results of the current study contribute to the growing body of literature on personality and online behaviours. Identification of factors that influence individuals to engage in intimate partner cyberstalking could be beneficial in cyberstalking interventions.

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1. Introduction

Unrelenting affectionate attention is an accepted and often desired approach in romantic courtship (Miller, 2012). Romantic pursuit behaviours, such as presenting gifts, pursuing, and communicating with a potential romantic partner, can enhance romantic connections between individuals (Duntley & Buss, 2012). However, when these behaviours become overly persistent, intruding, or unwelcome, they may approach the definition of stalking (Fox, Nobles, & Fisher, 2011). Intimate partner stalking occurs where a perpetrator targets a romantic interest for the means of obtaining, maintaining, or re-establishing a romantic connection (Duntley & Buss, 2012). The rise in and reliance on technology for access to personal information and communication has increased opportunities for intimate partner cyberstalking (IPCS) to occur (Tokunaga, 2011, 2016). However, research has predominantly considered predictors of traditional, overt stalking behaviour (Duntley & Buss, 2012), with a paucity of research investigating the unique nature of IPCS. The current study sought to address this gap by exploring gender and personality traits as predictors of IPCS.

1.1. Stalking, intimate partner stalking, and intimate partner cyberstalking

Stalking has been defined as the wilful, repeated, and malicious following or harassment of another person (Coleman, 1997). These behaviours can include maintaining surveillance of, persistent contact with, or directing threats in an effort to manipulate, coerce, and control the victim (Purcell, Pathé, & Mullen, 2001; Sheridan & Lyndon, 2012). Research has indicated the most common form of stalking intimate partner stalking, in which the behaviour is a response to the threat of rejection from a current, former, or potential intimate partner (Spitzberg & Cupach, 2007). The proximity and personal knowledge afforded by an established relationship provides perpetrators of intimate partner stalking an advantage in the ability to manipulate and control their victim (Spitzberg & Cupach, 2007). Intimate partner stalkers may engage in more extreme stalking behaviours in an effort to avoid the social, emotional, and economic costs of potential relationship dissolution (Davis, Ace, & Andra, 2000). Furthermore, intimate stalkers are more likely than non-intimate stalkers to behave aggressively, be more persistent and intrusive, engage in a greater diversity of stalking behaviours, and threaten and assault their victims and third parties (McEwan, Mullen, & MacKenzie, 2009; Spitzberg & Cupach, 2007).

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Stalking can impact the psychological, physical, and financial wellbeing of both the victim and perpetrator. Victims have reported expenditure of tens of thousands of dollars due to legal help, vandalism, relocation costs, and personal therapy (Sheridan & Lyndon, 2012). Subsequently, victims may experience severe psychological effects, including depression, anxiety, and stress (Kuehner, Gass, & Dressing, 2012). Finally, physical effects of stalking victimisation can include weight change, nausea, self-harm, purging, and sleep disturbances, (Kuehner et al., 2012; Sheridan & Lyndon, 2012). Furthermore, evidence suggests that stalkers themselves often suffer severe psychological, social, and legal consequences (McEwan, Mullen, & MacKenzie, 2010).

Cyberstalking is the stalking of another through methods of electronic access and communication, such as the use of hidden webcams, GPS devices, and SpyWare to monitor victim's behaviour, and pursuit and contact under anonymity through fake online profiles (Sheridan & Grant, 2007; Shorey, Cornelius, & Strauss, 2015). As the potential for online communication and available technologies has evolved, so too has the scope of relationship surveillance and intimate partner stalking (Tokunaga, 2016). Coupled with intimate knowledge of the victim, development of technology, and the susceptibility for disinhibited behaviour in the online environment, stalking behaviours can be encouraged through greater avenues to communicate and access personal information (Sheridan & Grant, 2007). Thus, intimate partner cyberstalking (IPCS) refers to cyberstalking behaviour towards current, former, or potential intimate partners. Compared to overt, more traditional forms of stalking, there is a paucity of research on cyberstalking (Ménard & Pincus, 2012), and in particular intimate partner cyberstalking has predominantly remained unexplored.

A principal feature of the antisocial nature of IPCS is the increased ability for the perpetrator to manipulate, coerce, control, and harass the victim without the constraints of geographical proximity (Sheridan & Grant, 2007; Tokunaga, 2016). However, many cases may go unrecognised and unreported due to the anonymous, covert nature of this behaviour (Fisher, Cullen, & Turner, 2002; Sheridan & Grant, 2007). Despite the significant adverse psychological, economical, and physical outcomes associated with victims of IPCS (and even perpetrators), predictors of IPCS have not yet specifically been explored. As IPCS has remained relatively unexplored in the literature, previous predictors of stalking behaviours (both covert and overt) will be discussed.

1.2. Predictors of stalking behaviours: gender and personality

Typically conceptualised as a gendered crime, with a male-perpetrator/female-victim structure, stalking is commonly considered a form of female harassment (Duntley & Buss, 2012; Spitzberg, Cupach, & Ciceraro, 2010). When presented with identical stalking cases in which only the gender of perpetrator and victim is manipulated, respondents are more likely to deliver a guilty verdict if the perpetrator was male (Dunlap, Hodell, Golding, & Wasarhaley, 2012). Indeed, much of the stalking literature has identified men as the primary perpetrators of stalking (e.g., Duntley & Buss, 2012). Interestingly, compared to women, men are also more likely to conceptualise stalking behaviours as appropriate romantic strategies (McKeon, McEwan, & Luebbers, 2015).

Despite the prototypical male perpetrator/female victim format of stalking (Duntley & Buss, 2012; Spitzberg et al., 2010), this dynamic has been shown to be dependent on the samples and settings of the research. For example, in a forensic sample of juvenile perpetrators, women were more likely to engage in covert stalking behaviours such as harassing phone calls and stalking by proxy. Comparatively, men were more likely to engage in overt stalking behaviours such as property damage and loitering (Purcell, Pathé, & Mullen, 2010).

Previous research of forensic samples of stalkers has also found that women were more likely to use covert stalking such as phone calls, whereas their male counterparts were more likely to physically follow their victim (Purcell et al., 2010). Additionally, women were more likely to target a known victim, whereas men were more likely to target strangers (Purcell et al., 2001). Investigating perpetration and victimisation rates of stalking in adolescents, men were more likely to report perpetrating stalking, yet were also more likely to report being victim of cyberstalking behaviours such as being electronically spied on and monitored (Fisher et al., 2014). However, in a sample of college students in current relationships, the frequency of stalking behaviours was shown to be equitable between genders (Shorey et al., 2015). In married couples, women (compared to men) were more likely to engage in IPCS behaviours, such as reading their partner's emails and checking their web browser history (Helsper & Whitty, 2010).

In addition to gender, research has also explored the association between dark personality traits (the Dark Tetrad; Chabrol, Van Leeuwen, Rodgers, & Séjourné, 2009) and perpetration of stalking behaviours (e.g., Ménard & Pincus, 2012; Sheridan & Boon, 2002; Storey, Hart, Meloy, & Reavis, 2009). The Dark Tetrad, comprised of trait Machiavellianism, narcissism, psychopathy, and sadism, is a set of subclinical traits characterised by distinct individuals characteristics with overlapping themes of callous disposition, egocentrism, low agreeableness, and low humility (Chabrol et al., 2009; Paulhus & Williams, 2002). Associated with a tendency to deceive and moral flexibility, individuals with high levels of trait Machiavellianism have a dispositional propensity to manipulate and take advantage of others (Paulhus & Williams, 2002). In relationships, they have been shown to engage in emotional manipulation against their partners (Abell, Brewer, Qualter, & Austin, 2016). Those with high trait Machiavellianism are vigilant and meditative in their behaviour and appear aware of their antisocial actions, acting out against perceived threats in a covert manner (Paulhus, 2014). The deceptive and manipulative behaviour of the Machiavellian traits can be considered synonymous with the covert, deceitful nature of cyberstalking (Sheridan & Grant, 2007).

Narcissism is characterised by a grandiose sense of self-importance, superiority, and entitlement (Paulhus, 2014). Individuals with high trait narcissism often respond to ego threats with increased aggression (Jones & Paulhus, 2010), and previous research has suggested narcissism (along with anger and jealousy) plays a key role in stalking behaviours (Mullen, Pathé, & Purcell, 2000). To the best of our knowledge, narcissism is the only Dark Tetrad trait that has been explored as a predictor of cyberstalking behaviours. Specifically, Ménard and Pincus (2012) found a positive association between vulnerable narcissism and cyberstalking in male college students. Unfortunately, other dark personality traits were not assessed, and the college sample questions the ecological validity of these results.

Psychopathy is a dimension of personality centred on callousness and lack of emotion or remorse, represented by an antagonistic interpersonal style involving subtle forms of humiliation, retaliation, and scornful interactions (Jones & Paulhus, 2010). In intimate relationships, those high in psychopathy have been shown to engage in psychological game-playing (Jonason & Kavanagh, 2010). Research has found an association between measures of psychopathic personality disorder and stalking behaviours, thus directly linking trait psychopathy with stalking (Kropp, Hart, Lyon, & Storey, 2011; Storey et al., 2009). Specifically, stalking behaviours were found to be significantly positively correlated with traits of psychopathic personality disorder (Storey et al., 2009). In addition, individuals with relatively high psychopathic traits displayed escalation in the frequency, severity, and diversity of their stalking and appeared relatively remorseless in the effects of their actions, tending to select vulnerable victims with financial or employment problems (Storey et al., 2009).

The final trait of the Tetrad, trait sadism, is described as the enjoyment of inflicting psychological and physical pain onto others (Buckels, Jones, & Paulhus, 2013; Paulhus, 2014). Characterised by this enjoyment in cruelty and aggression, everyday sadism is shown to be a predictor of sexual violence and assault (Buckels et al., 2013). Sadism has been directly related to stalking through Sheridan and Boon's (2002) proposition of a sadistically motivated stalker, whereby the perpetrator identifies a victim as someone who is worth harming, and who would not understand why they were targeted. A stalker with high levels of sadism seeks to frighten or demoralise their victim, for example leaving evidence that they have had contact with their personal property, such as removing or reordering the victim's belongings (Sheridan & Boon, 2002).

As discussed, all Dark Tetrad traits appear to share similarities with the motivations and intent for the perpetration of stalking behaviour (see Sheridan & Boon, 2002), and research has also established the utility of these traits in predicting perpetration of stalking behaviours (Storey et al., 2009). However, research exploring these traits predicting covert cyberstalking relative to overt stalking is limited, especially when considering IPCS. Furthermore, although Ménard and Pincus (2012) explored trait narcissism as a predictor of cyberstalking behaviours, the ecological validity of the sample is questionable. In sum, the utility of the Dark Tetrad traits in predicting IPCS in a more generalised sample is yet to be established.

1.3. Aim and hypotheses

The aim of the current study is to examine the utility of gender and the Dark Tetrad traits (Machiavellianism, narcissism, psychopathy, and sadism) in predicting perpetration of IPCS. Firstly, it is predicted that gender, specifically the female gender, will significantly predict perpetration of IPCS. In addition to the variance explained by gender, it is predicted that higher levels of Dark Tetrad personality traits (Machiavellianism, narcissism, psychopathy, and sadism) will significantly predict higher engagement in IPCS.

2. Method

2.1. Participants and procedure

Participants were recruited through advertisements on social media which included a URL link to the online questionnaire. Initially, 909 potential participants accessed the questionnaire; however, a total sample of 689 participants with a mean age of 26 years ($SD = 10.21$) completed all measures. Of the sample, 30% were men 70% were women, with 36% reporting their relationship status as single, 16% dating, 32% in a long-term relationship, 13% married, 2% separated/divorced, and 1% not offering information.

2.2. Measures

Individual levels of Machiavellianism, narcissism, and psychopathy were measured with the Short Dark Triad Scale (SD3; Jones & Paulhus, 2014), a 27-item measure with 9-items for each trait. The Machiavellianism subscale (Cronbach's $\alpha = 0.78$) contains items such as "I like to use clever manipulation to get my way"; the narcissism subscale (Cronbach's $\alpha = 0.70$) contains items such as "I insist on getting the respect I deserve"; and the psychopathy subscale (Cronbach's $\alpha = 0.75$) contains items such as "People who mess with me always regret it". Participants responded to each item of a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), and items were summed for a total score for each trait. Previous research has shown the SD3 to have good internal reliability across all three scales (Buckels, Trapnell, & Paulhus, 2014; Maples, Lamkin, & Miller, 2014; Plouffe, Saklofske, & Smith, 2017).

The Short Sadistic Impulse Scale (SSIS; O'Meara, Davies, & Hammond, 2011) was used to measure individual levels of everyday sadism. The SSIS was adapted from a dichotomous format to a Likert scale to address the limitation of the assumption of unidimensionality (Paulhus & Jones, 2015). Participants rated their agreement (1 = *strongly disagree* to 5 = *strongly agree*) to 10 statements, such as "I have hurt people for my own enjoyment". Items were summed for an overall score of trait sadism (Cronbach's $\alpha = 0.89$). Previous research has shown the SSIS to have good internal reliability, such as $\alpha = 0.88$ (Buckels et al., 2014) and 0.86 (O'Meara et al., 2011). As the SSIS in the current study yielded higher internal consistency than previous use, it is possible using the Likert response scale increases the scale's reliability.

The Intimate Partner Cyberstalking Scale (IPCS-scale; Appendix A) was developed by the current authors to measure specific behaviours of cyberstalking within an intimate relationship. Construction of such a scale was considered warranted, based on limited availability of cyberstalking scales (specifically examining partner behaviour), and concerning content validity of other measures (e.g., the Obsessive Relational Intrusion measure includes only 5-items that assess cyberstalking behaviours). Existing partner and non-partner stalking measures used in previous research (e.g., McKeon et al., 2015; Tokunaga, 2011), along with the legal definition of stalking behaviours outlined in the *Crimes Act of Victoria 1958* (Government of Victoria, 2011, s.21A) were assessed and adapted to construct the IPCS. The measure consisted of 21-items measuring the endorsement of committing specific, common behaviours of IPCS. Examples of items include "I have checked my partner's phone/computer history to see what they've been up to", and "I have used or have considered using phone apps to track my partner's activities". Responses to items were recorded on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Total scores were calculated by summing all 21 items, with higher scores indicating a greater engagement in IPCS behaviour. The scale was shown to be a reliable measure of these behaviours with excellent current internal consistency (Cronbach's $\alpha = 0.92$).

3. Results

Data was entered into and analysed with IBM SPSS v. 21.¹ Compared to women, men were higher on trait Machiavellianism, narcissism, psychopathy, and sadism, whereas women were higher on intimate partner cyberstalking behaviours (see *t*-tests in Table 1). Bivariate correlations show significant associations between all predictor variables and the criterion variable (see Table 2), supporting their inclusion in the regression model. Intercorrelations were not above 0.7, suggesting multicollinearity is not a concern.

A 2-step Hierarchical Multiple Regression Analysis (HMRA) was run, with the predictors of gender, Machiavellianism, narcissism, psychopathy, and sadism (the Dark Tetrad), and the criterion of intimate partner cyberstalking. Gender was entered at Step 1, and the Dark Tetrad was entered at Step 2. At Step 1 of the hierarchical multiple regression, gender explained a significant 0.70% (adjusted R^2) of the variance in IPCS, $R^2 = 0.01$, $F(1, 638) = 4.74$, $p = 0.030$, $f^2 = 0.01$. At Step 2, the Dark Tetrad variables explained an additional 24.40% (adjusted R^2) of variance in IPCS, and this change was significant, $R^2 = 0.25$, $F(4, 634) = 51.61$, $p = 0.001$, $f^2 = 0.30$. The total variance explained by the model as a whole was 24.50% (adjusted R^2) and this was significant, $F(5, 634) = 42.54$, $p = 0.001$, $f^2 = 0.33$. Coefficients are presented in Table 3.

Due to the gender coefficient change at Step 2, potential moderation effects of the Dark Tetrad traits on gender predicting

¹ alpha was set at 0.05.

Table 1
Descriptive statistics and sex differences.

	Mean (SD)			<i>t</i>	<i>d</i>
	Overall	Men	Women		
Machiavellianism	26.57 (5.81)	28.45 (6.18)	25.79 (5.47)	5.60***	0.46
Narcissism	23.55 (5.25)	24.25 (5.37)	23.25 (5.17)	2.29*	0.19
Psychopathy	18.99 (5.43)	20.57 (5.68)	18.30 (5.18)	5.07***	0.42
Sadism	16.76 (6.75)	18.86 (8.09)	15.92 (5.94)	4.57***	0.41
IPCS	36.40 (14.18)	34.43 (14.05)	37.23 (14.20)	-2.28*	0.20

Note. IPCS = Intimate Partner Cyberstalking * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; *d* = Cohen's *d* effect size.

Table 2
Pearson bivariate correlations for gender, Machiavellianism, narcissism, psychopathy, sadism, and IPCS.

	1	2	3	4	5	6
1. Gender	–					
2. Machiavellianism	-0.21***	–				
3. Narcissism	-0.09*	0.26***	–			
4. Psychopathy	-0.19***	0.54***	0.40***	–		
5. Sadism	-0.20***	0.51***	0.26***	0.63***	–	
6. IPCS	0.09*	0.37***	0.23***	0.37***	0.39***	–

Note. IPCS = Intimate Partner Cyberstalking; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

engagement in IPCS were explored through separate PROCESS moderation analyses. None of the dark traits were found to significantly moderate the relationship between gender and IPCS.

4. Discussion

The aim of the present study was to examine the utility of gender and the Dark Tetrad traits (Machiavellianism, narcissism, psychopathy, and sadism) in the perpetration of IPCS. Consistent with the first hypothesis, results indicated that women were significantly more likely than men to perpetrate IPCS. These findings are consistent with previous research, in which women were found to be more likely than men to engage in covert stalking behaviours (including cyberstalking; e.g., Purcell et al., 2001, 2010). Furthermore, the results are also consistent with previous findings by Helsper and Whitty (2010), who found that in married couples, women were more likely than men to use technology to discreetly monitor their partner's behaviour. Women (more so than men) are motivated to stalk in an effort to attain intimacy (Purcell et al., 2001), and IPCS can be an effective relational maintenance tool (Duntley & Buss, 2012). As such, the motivation to attain intimacy through preserving or establishing a relationship may provide women with the drive to conduct IPCS.

Such results have implications for the common identification of stalking as a gendered crime with a male-perpetrator/female-victim structure (e.g., Fisher et al., 2014; Spitzberg et al., 2010). However, it should be noted that previous studies identifying this perpetrator/victim structure have considered broader ranges of stalking behaviour, including physical, overt stalking such as following their victim and vandalising property (Purcell et al.,

2010). While Purcell et al. (2010) found that men were more likely than women to engage in stalking behaviours, when analysing the perpetration of specific stalking behaviours, women were more likely to engage in covert stalking methods. As such, results of the current study add support to the notion that when assessing stalking, the scope of stalking behaviours should be broad (i.e., physical stalking, cyberstalking) to effectively establish gender differences in the perpetration of these behaviours. With the increase in methods available for cyberstalking, this traditional male-perpetrator/female-victim structure may show to be inaccurate when considering intimate partner stalking.

Consistent with the second hypothesis, results demonstrated the traits of Machiavellianism, narcissism, psychopathy, and sadism were all significant positive predictors of engagement in IPCS behaviours. Specifically, individuals with higher levels of these traits are significantly more likely to engage in this behaviour. To the best of our knowledge, research has not yet investigated the predictive utility of the Dark Tetrad traits in IPCS. However, previous research has certainly indicated that narcissism, psychopathy, and sadism have been associated with other stalking behaviours (e.g., Kropp et al., 2011; Ménard & Pincus, 2012; Sheridan & Boon, 2002).

Firstly, the current study found that high scores in trait narcissism positively predicted engagement in IPCS. These results support previous research of Ménard and Pincus (2012), who found narcissism predicted both physical stalking and cyberstalking. Specifically, the authors found that narcissistic vulnerability (narcissism characterised by introversion and fear of rejection) was a significant positive predictor of engagement in both physical stalking and cyberstalking. Individuals with high levels of trait narcissism are considered to be sensitive to rejection and aggress in response to shame and guilt provoked by ego-threats (Jones & Paulhus, 2010). An intimate relationship may provide a threat to the individual high in trait narcissism due to the partner's intimate knowledge of the trait narcissist's flaws. Therefore, individuals high in trait narcissism may perform IPCS as a means to gain an upper hand in a relationship and prevent potential narcissistic wounds from possible relationship dissolution.

Results of the current study also showed that high levels of trait psychopathy positively predicted engagement in IPCS. These results corroborate previous research by Storey et al. (2009), who found that psychopathic traits were significantly positively correlated with the presence of stalking risk factors. However, it should be noted that overall, trait psychopathy was not prevalent amongst adult stalkers. Nonetheless, psychopathic traits in this sample were associated with a broad range of stalking risk factors such as escalated severity and variety of stalking behaviour (Storey et al., 2009). In addition, Storey et al. (2009) reported that stalking perpetrators who had high trait psychopathy were unlikely to be motivated by emotional attachment or obtainment of intimacy to their victims. Such results contradict those of the current study, where psychopathy was associated with IPCS, stalking behaviour that is more likely to be motivated by emotional attachment to the victim (Duntley & Buss, 2012). However, the sample Storey et al. (2009) assessed were convicted stalkers attending a psychiatric outpatient clinic, where 44% of the victims targeted were non-intimate. As such, this sample may not have been motivated to stalk by intimacy overall. Comparatively, the results of the current study indicate that trait psychopathy indeed has a function in IPCS.

Individuals with high trait psychopathy are likely to engage in aggression that is predatory and instrumental rather than emotional, and conduct aggression towards those most intimate to them (Coyne & Thomas, 2008). Individuals high in trait psychopathy participate in high risk-taking behaviour, particularly in forms of psychological game-playing in intimate relationships (Jonason & Kavanagh, 2010). As such, individuals high in trait psychopathy may construct intimate

Table 3
Coefficients table for predictors of gender, Machiavellianism, narcissism, psychopathy, and sadism in predicting intimate partner cyberstalking.

	B	SE	β
Step 1			
Gender	2.72	1.25	0.09*
Step 2			
Gender	5.85	1.11	0.19***
Machiavellianism	0.54	0.11	0.21***
Narcissism	0.27	0.10	0.10**
Psychopathy	0.30	0.13	0.11*
Sadism	0.49	0.10	0.23***

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

relationships to produce an unstable environment in which to satisfy their need for impulsivity and stimulation. Cyberstalking provides an opportunity for those high in trait psychopathy to participate in malevolent romantic game-playing while allowing physical distance from the potential emotional impact on the victim.

Unlike trait narcissism and psychopathy, research has not yet explicitly explored trait Machiavellianism in relation to perpetration of stalking behaviours. However, results of the current study provide evidence for the utility of trait Machiavellianism in predicting the perpetration of IPCS. In close relationships, individuals high in trait Machiavellianism have been shown to engage in emotional manipulation and are also likely to believe they are being manipulated themselves (Abell et al., 2016). Individuals high in trait Machiavellianism also benefit from strategic and regulating mating strategies, and therefore cultivate a relationship to serve their own needs (Jonason & Kavanagh, 2010). Thus, distrust in a romantic partner, combined with the manipulative, exploitative and deceptive nature of trait Machiavellianism could in turn motivate online surveillance as a strategy of defence to personal or relational threats. For the strategic, manipulative Machiavellian, the methodical and calculated nature of online stalking might be considerably appealing.

Finally, the current study found that individuals with higher levels of trait sadism significantly engage in more IPCS. These results support Sheridan and Boon's (2002) concept of a sadistically motivated stalker; the stalker high in trait sadism has been shown to derive pleasure from intimidating and tormenting their victim (Miller, 2012; Sheridan & Boon, 2002). However, Sheridan and Boon (2002) indicated that stalkers high in trait sadism are more emotionally detached and target individuals unknown to them as opposed to romantic partners. This does not align with results of the current study, as we explicitly explored intimate partner stalking online. Thus, this suggests the sadistic stalker is also capable of stalking intimate partners. Considering individuals high in trait sadism have been shown to be motivated by control and dominance over others (e.g., Paulhus, 2014), these individuals may benefit from employing covert means of stalking as a function of gaining control and dominance in an intimate relationship. In sum, the results of the current study extend Sheridan and Boon's (2002) concept of the sadistically motivated stalker, demonstrating that trait sadism is related to perpetration of cyberstalking not only unknown, trivial victims but intimate, romantic partners as well.

4.1. Implications

The findings of the current study have practical implications and can be utilised to inform the basis for the prevention and intervention of IPCS. The current study highlights that women are more likely than men to engage in IPCS, employing malicious and controlling behaviour that can negatively impact another's social, psychological, and physical wellbeing. Therefore, it is imperative that these findings are accounted for in the available resources to help both victims and perpetrators. Particularly, by recognising what may seem to be milder forms of indirect contact stalking, potential high-risk offenders could be promptly identified and directed towards intervention. Furthermore, victim support material should be developed with the intent of assisting both women and men as victims, thus increasing awareness that both genders may be prone to participate in, and experience stalking behaviour.

Additionally, gender as a significant predictor of IPCS also has practical applications for clinical settings. The gender difference in perpetration of IPCS could indicate differences in motivation to engage in IPCS. Although such a claim requires further research exploration, results of the current study may tentatively have practical use in relationship counselling through increasing awareness of, and understanding as to why the partner may be engaging in IPCS.

The findings for The Dark Tetrad predicting IPCS have practical applications for clinical settings. As these traits were found to have predictive utility in the engagement of IPCS, these results may have practical use in relationship counselling through increasing awareness of, and understanding as to why the partner may be engaging in IPCS. These findings may also be beneficial on an individual level, offering greater identification of what behaviours may constitute stalking, the motivations for perpetration, and possible implications they may have on an individual's life.

4.2. Limitations and future research

A potential limitation of the current study is that the questionnaire consisted of items measuring traits and behaviours that are generally viewed as socially undesirable (e.g., Chabrol et al., 2009; Spitzberg & Cupach, 2007). When self-reporting on measures of personality traits, individuals have been shown to indicate they have more socially desirable characteristics than unsocially desirable (Pedregon, Farley, Davis, Wood, & Clark, 2012). To attempt to counteract social desirability bias, the current study was anonymous and confidential, with no personal identifying information supplied or obtained. Furthermore, during the construction of items to use in the IPCS-scale, care was taken not to use loaded language that may invoke guilt or shame on endorsement of an item. For example, instead of using the word "stalk", which may appeal to a negative stereotype (Fox et al., 2011) questions were presented as behaviours that encompass the definition of stalking.

The IPCS-scale was constructed by the current authors specifically for the current study to measure engagement in IPCS. As such, the scale was not subject to pilot testing or validation. Therefore, certainty regarding construct and content validity of the IPCS-scale cannot be guaranteed. Future research could involve further validation of the current scale, along with exploratory factor analyses to further explore potential factors in the composition of IPCS.

However, despite absence of validation, the IPCS-scale achieved excellent internal consistency in the current sample. Furthermore, the questions in the scale attempt to differentiate what may constitute normal relationship behaviour, with behaviour that is performed with the intent to deceive or manipulate. Given the excellent measure of reliability, non-gendered structure of the items, and reduced loaded language of the developed stalking measure for this study, this scale could be considered an effective tool to be used for further research into IPCS. The current scale may provide a function in future research investigating the motivations of perpetration of IPCS in same sex relationships.

4.3. Conclusion

To supplement a growing body of research on stalking behaviours, particularly online, this study represents one of the first to examine women and men's perpetration of behaviours in IPCS and the utility of The Dark Tetrad personality traits. These results provide a greater understanding of the role personality may play in the perpetration of stalking behaviours, and draw attention to specific characteristics that may precipitate this behaviour.

Results of the current study highlight the necessity to address the gendered notions of stalking and the stereotypes that accompany those perceptions in order to raise awareness to the reality of stalking. Ultimately, this study highlights the need to understand different motivations of gender differences in stalking. Consequently, the current research can inform future identification and prevention strategies of stalking behaviour in intimate partner relationships. Implementation of prevention strategies may aid in overcoming the common neglect of intimate partner stalking cases, as well as stalking cases featuring non-prototypical victims and perpetrators.

Appendix A. Intimate Partner Cyber Stalking Scale (IPCS-scale)

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
1. If my partner is going out, I will usually check their online accounts to see what they're up to.	1	2	3	4	5
2. I would help, or have helped friends access their partner/ex-partner's online accounts.	1	2	3	4	5
3. To a certain extent, my partner should expect that I would log into their online accounts.	1	2	3	4	5
4. I have checked my partner's messages (e.g. e-mail, Facebook, phone) without them knowing.	1	2	3	4	5
5. I have taken screenshots of information found on my partner's phone/computer without them knowing.	1	2	3	4	5
6. If I suspected my partner was lying I would check their online accounts to help verify my suspicions.	1	2	3	4	5
7. I have used an alternative ("fake") online account (e.g. Facebook, Instagram, e-mail) to check other's profiles without them knowing.	1	2	3	4	5
8. I have checked my partner's phone/computer history to see what they've been up to.	1	2	3	4	5
9. I have used the location settings on my partner's phone/computer to see where they've been, without them knowing.	1	2	3	4	5
10. I have either asked my partner to remove or block certain people from their contacts (phone or social media), because I didn't like the person, or I have done so myself (removed/blocked the person).	1	2	3	4	5
11. I have prevented my partner from contacting certain people.	1	2	3	4	5
12. I have posed as someone else over social media/email/phone in order to contact someone who wouldn't otherwise respond.	1	2	3	4	5
13. If my partner adds a new contact on social media, I will attempt to find out more about the person and their connection without directly asking my partner.	1	2	3	4	5
14. I have screenshots saved of things my partner has done wrong to be used as evidence in the future, if the need arises.	1	2	3	4	5
15. If my partner betrayed me, I wouldn't hesitate using social media to shame them.	1	2	3	4	5
16. The majority of my time spent on social networking sites is looking at my partner's pages.	1	2	3	4	5
17. I get a lot of information about my partner's activities and friendships from looking at his/her social media pages and phone.	1	2	3	4	5
18. I have changed my relationship status on social media to get a reaction from a partner/ex-partner.	1	2	3	4	5
19. I try to monitor my partner's behaviours through social media.	1	2	3	4	5
20. I have attempted to log in to my partner's online accounts or phone without them knowing.	1	2	3	4	5
21. I have used or considered using phone apps to track my partner's activities.	1	2	3	4	5

References

- Abell, L., Brewer, G., Qualter, P., & Austin, E. (2016). Machiavellianism, emotional manipulation, and friendship functions in women's friendships. *Personality and Individual Differences*, 88, 108–113. <http://dx.doi.org/10.1016/j.paid.2015.09.001>.
- Buckels, E. E., Jones, D. N., & Paulhus, D. L. (2013). Behavioral confirmation of everyday sadism. *Psychological Science*, 24(11), 2201–2209. <http://dx.doi.org/10.1177/0956797613490749>.
- Buckels, E. E., Trapnell, P. D., & Paulhus, D. L. (2014). Trolls just want to have fun. *Personality and Individual Differences*, 67, 97–102. <http://dx.doi.org/10.1016/j.paid.2014.01.016>.
- Chabrol, H., Van Leeuwen, N., Rodgers, R., & Séjourné, N. (2009). Contributions of psychopathic, narcissistic, Machiavellian, and sadistic personality traits to juvenile delinquency. *Personality and Individual Differences*, 47(7), 734–739. <http://dx.doi.org/10.1016/j.paid.2009.06.020>.
- Coleman, F. L. (1997). Stalking behavior and the cycle of domestic violence. *Journal of Interpersonal Violence*, 12(3), 420–432. <http://dx.doi.org/10.1177/088626097012003007>.
- Coyne, S. M., & Thomas, T. J. (2008). Psychopathy, aggression, and cheating behavior: A test of the Cheater-Hawk hypothesis. *Personality and Individual Differences*, 44(5), 1105–1115. <http://dx.doi.org/10.1016/j.paid.2007.11.002>.
- Davis, K. E., Ace, A., & Andra, M. (2000). Stalking perpetrators and psychological maltreatment of partners: Anger-jealousy, attachment insecurity, need for control, and break-up context. *Violence and Victims*, 15(4), 407–425. Retrieved from: <https://www.ncbi.nlm.nih.gov/pubmed/11288938>.
- Dunlap, E. E., Hodell, E. C., Golding, J. M., & Wasarhaley, N. E. (2012). Mock jurors' perception of stalking: The impact of gender and expressed fear. *Sex Roles*, 66(5), 405–417. <http://dx.doi.org/10.1007/s11199-011-9970-z>.
- Duntley, J. D., & Buss, D. M. (2012). The evolution of stalking. *Sex Roles*, 66(5), 311–327. <http://dx.doi.org/10.1007/s11199-010-9832-0>.
- Fisher, B. S., Coker, A. L., Garcia, L. S., Williams, C. M., Clear, E. R., & Cook-Craig, P. G. (2014). Statewide estimates of stalking among high school students in Kentucky: Demographic profile and sex differences. *Violence Against Women*, 20(10), 1258–1279. <http://dx.doi.org/10.1177/1077801214551574>.
- Fisher, B. S., Cullen, F. T., & Turner, M. G. (2002). Being pursued: Stalking victimization in a national study of college women. *Criminology and Public Policy*, 1(2), 257–308. <http://dx.doi.org/10.1111/j.1745-9133.2002.tb00091.x>.
- Fox, K. A., Nobles, M. R., & Fisher, B. S. (2011). Method behind the madness: An examination of stalking measurements. *Aggression and Violent Behavior*, 16(1), 74–84. <http://dx.doi.org/10.1016/j.avb.2010.12.004>.
- Government of Victoria. (2011). *Crimes act 1958, Victoria. s.21A*. Retrieved from: <http://www.austlii.edu.au>.
- Helsper, E. J., & Whitty, M. T. (2010). Netiquette within married couples: Agreement about acceptable online behavior and surveillance between partners. *Computers in Human Behavior*, 26(5), 916–926. <http://dx.doi.org/10.1016/j.chb.2010.02.006>.
- Jonason, P. K., & Kavanagh, P. (2010). The dark side of love: Love styles and the Dark Triad. *Personality and Individual Differences*, 49(6), 606–610. <http://dx.doi.org/10.1016/j.paid.2010.05.030>.
- Jones, D. N., & Paulhus, D. L. (2010). Different provocations trigger aggression in narcissists and psychopaths. *Social Psychological and Personality Science*, 1(1), 12–18. <http://dx.doi.org/10.1177/1948550609347591>.
- Jones, D. N., & Paulhus, D. L. (2014). Introducing the Short Dark Triad (SD3): A brief measure of dark personality traits. *Assessment*, 21(1), 28–41. <http://dx.doi.org/10.1177/1073191113514105>.
- Kropp, P. R., Hart, S. D., Lyon, D. R., & Storey, J. E. (2011). The development and validation of the guidelines for stalking assessment and management. *Behavioral Sciences and the Law*, 29(2), 302–316. <http://dx.doi.org/10.1177/0886260511416473>.
- Kuehner, C., Gass, P., & Dressing, H. (2012). Mediating effects of stalking victimization on gender differences in mental health. *Journal of Interpersonal Violence*, 27(2), 199–221. <http://dx.doi.org/10.1177/0886260511416473>.
- Maples, J. L., Lamkin, J., & Miller, J. D. (2014). A test of two brief measures of the Dark Triad: The Dirty Dozen and Short Dark Triad. *Psychological Assessment*, 26(1), 326–331. <http://dx.doi.org/10.1037/a0035084>.
- McEwan, T. E., Mullen, P. E., & MacKenzie, R. (2009). A study of the predictors of persistence in stalking situations. *Law and Human Behavior*, 33(2). <http://dx.doi.org/10.1007/s10979-008-9141-0>.
- McEwan, T. E., Mullen, P. E., & MacKenzie, R. (2010). Suicide among stalkers. *The Journal of Forensic Psychiatry & Psychology*, 21(4), 514–520. <http://dx.doi.org/10.1080/14789940903564370>.
- McKeon, B., McEwan, T. E., & Luebbers, S. (2015). "It's not really stalking if you know the person": Measuring community attitudes that normalize, justify and minimise stalking. *Psychiatry, Psychology and Law*, 22(2), 291–306. <http://dx.doi.org/10.1080/13218719.2014.945637>.
- Ménard, K. S., & Pincus, A. L. (2012). Predicting overt and cyber stalking perpetration by male and female college students. *Journal of Interpersonal Violence*, 27(11), 2183–2207. <http://dx.doi.org/10.1177/0886260511432144>.
- Miller, L. (2012). Stalking: Patterns, motives, and intervention strategies. *Aggression and Violent Behavior*, 17(6), 495–506. <http://dx.doi.org/10.1016/j.avb.2012.07.001>.
- Mullen, P. E., Pathe, M., & Purcell, R. (2000). *Stalkers and their victims*. Cambridge:

Cambridge University Press.

- O'Meara, A., Davies, J., & Hammond, S. R. (2011). The psychometric properties and utility of the Short Sadistic Impulse Scale (SSIS). *Psychological Assessment*, 23(2), 523–531. <http://dx.doi.org/10.1037/a0022400>.
- Paulhus, D. L. (2014). Toward a taxonomy of dark personalities. *Current Directions in Psychological Science*, 23(6), 421–426. <http://dx.doi.org/10.1177/0963721414547737>.
- Paulhus, D. L., & Jones, D. N. (2015). Measures of dark personalities. In G. Boyle, D. Saklofske, & G. Matthews (Eds.), *Measures of personality and social psychological constructs* (1st ed., pp. 562–594). San Diego, CA: Elsevier Academic Press. <http://dx.doi.org/10.1016/b978-0-12-386915-9-00020-6>.
- Paulhus, D. L., & Williams, K. M. (2002). The dark Triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality*, 36(6), 556–563. [http://dx.doi.org/10.1016/S0092-6566\(02\)00505-6](http://dx.doi.org/10.1016/S0092-6566(02)00505-6).
- Pedregon, C. A., Farley, R. L., Davis, A., Wood, J. M., & Clark, R. D. (2012). Social desirability, personality questionnaires, and the “better than average” effect. *Personality and Individual Differences*, 52(2), 213–217. <http://dx.doi.org/10.1016/j.paid.2011.10.022>.
- Plouffe, R. A., Saklofske, D. H., & Smith, M. M. (2017). The assessment of sadistic personality: Preliminary psychometric evidence for a new measure. *Personality and Individual Differences*, 104, 166–171. <http://dx.doi.org/10.1016/j.paid.2016.07.043>.
- Purcell, R., Pathé, M., & Mullen, P. E. (2001). A study of women who stalk. *American Journal of Psychiatry*, 158(12), 2056–2060. <http://dx.doi.org/10.1176/appi.ajp.158.12.2056>.
- Purcell, R., Pathé, M., & Mullen, P. E. (2010). Gender differences in stalking behaviour among juveniles. *The Journal of Forensic Psychiatry & Psychology*, 21(4), 555–568. <http://dx.doi.org/10.1080/14789940903572035>.
- Sheridan, L., & Boon, J. (2002). *Stalking and psychosexual obsession: Psychological perspectives for prevention, policing and treatment*. Chichester, West Sussex, UK: John Wiley & Sons.
- Sheridan, L. P., & Grant, T. (2007). Is cyberstalking different? *Psychology, Crime and Law*, 13(6), 627–640. <http://dx.doi.org/10.1080/10683160701340528>.
- Sheridan, L., & Lyndon, A. E. (2012). The influence of prior relationship, gender, and fear on the consequences of stalking victimization. *Sex Roles*, 66(5), 340–350. <http://dx.doi.org/10.1007/s11199-010-9889-9>.
- Shorey, R. C., Cornelius, T. L., & Strauss, C. (2015). Stalking in college student dating relationships: A descriptive investigation. *Journal of Family Violence*, 30(7), 935–942. <http://dx.doi.org/10.1007/s10896-015-9717-7>.
- Spitzberg, B. H., & Cupach, W. R. (2007). The state of the art of stalking: Taking stock of the emerging literature. *Aggression and Violent Behavior*, 12(1), 64–86. <http://dx.doi.org/10.1016/j.avb.2006.05.001>.
- Spitzberg, B. H., Cupach, W. R., & Ciceraro, L. D. (2010). Sex differences in stalking and obsessive relational intrusion: Two meta-analyses. *Partner Abuse*, 1(3), 259–285. <http://dx.doi.org/10.1891/1946-6560.1.3.259>.
- Storey, J. E., Hart, S. D., Meloy, J. R., & Reavis, J. A. (2009). Psychopathy and stalking. *Law and Human Behavior*, 33(3), 237–246. <http://dx.doi.org/10.1007/s10979-008-9149-5>.
- Tokunaga, R. S. (2011). Social networking site or social surveillance site? Understanding the use of interpersonal electronic surveillance in romantic relationships. *Computers in Human Behavior*, 27(2), 705–713. <http://dx.doi.org/10.1016/j.chb.2010.08.014>.
- Tokunaga, R. S. (2016). Interpersonal surveillance over social network sites: Applying a theory of negative relational maintenance and the investment model. *Journal of Social and Personal Relationships*, 33(2), 171–190. <http://dx.doi.org/10.1177/0265407514568749>.