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Research article

Darker deals? Male dark tetrad preferences for female sex worker services

Sara Hughes^{a,*}, Joanna Adhikari^b, Katharine Goulding^a^a Sheffield Hallam University, UK^b University of Derby, UK

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ABSTRACT

The present study explored links between male Dark Tetrad personality traits (psychopathy, Machiavellianism, narcissism, sadism) and preferences for using outdoor and indoor female sex worker services. We also investigated the mediating effects of perceiving sex workers as deviant and as victims. Heterosexual males ($N = 347$) were recruited to take part in an online survey investigating personality and attitudes towards female sex workers. Path analyses revealed that psychopathy and sadism positively predicted preferences for outdoor but not indoor female sex services. Sex worker choice mediated positive links between narcissism and outdoor female sex worker preferences. Compared to indoor, outdoor sex services are associated with increased aggression and violence. Our findings highlight the importance of considering narcissism and particularly psychopathy and sadism when investigating individual male preferences for outdoor sex services that are being offered by particularly vulnerable women.

1. Introduction

Reasons for why some males exchange money or goods for female sex services (i.e., indirect sexually suggestive displays, or engagement in direct sexual acts) continue to attract attention from scholars, including individual differences researchers. For example, individuals high in impulsivity and sensation-seeking report increased preferences for paying for female sex workers (Milrod and Monto, 2017; Davis et al., 2020). Men who engage in prostitution services also report higher levels of rape myth acceptance (Jewkes et al., 2006; Davis et al., 2020). From an evolutionary perspective, female sex services also facilitate strategies for individuals adopting short-term mating preferences (Harris et al., 2011; Jonason et al., 2010).

Different forms of female sex services have been recognised such as outdoor and indoor services. Indoor services include sex services via organisations such as escort agencies, strip clubs, cam girls and brothels. Outdoor services are recognised as on the street prostitution and survival sex and are associated with increased danger and vulnerability to females offering these services. This is perhaps due to reduced protection otherwise offered by indoor services (Davis et al., 2020). Indeed, women who offer outdoor sex services report being targets of aggression, and violence (Milrod and Monto, 2017; Farley et al., 2017; Lowman and Atchison, 2006) more frequently than indoor sex workers. It is therefore important to identify individuals with increased preferences for outdoor

sex services, to increase awareness for particularly vulnerable sex workers.

A plausible starting point may be to investigate such preferences amongst a constellation of personality traits commonly recognised as the Dark Tetrad. This is because individuals high in Dark Tetrad personality traits (psychopathy, Machiavellianism, narcissism, sadism) share many characteristics previously reported in males who engage in female sex services, including thrill-seeking, impulsivity (Hare, 2006), rape myth acceptance (Davis et al., 2020) and short-term mating orientations (Jonason et al., 2017; Davis et al., 2020). Despite sharing characteristics such as callousness, low levels of honesty-humility and agreeableness (Paulhus et al., 2018), each dark trait displays their own uniqueness. Dark Tetrad psychopathy refers to individuals who are superficially charming and increased risk-takers who lack guilt and remorse (Lyons and Hughes, 2015). Narcissistic individuals perceive themselves to be superior and grandiose, whilst often exhibiting heightened leadership qualities (Brewer et al., 2019). Machiavellian individuals are cynical in nature and strategic manipulators (Jones and Paulhus, 2017). Finally, sadistic individuals experience pleasure from witnessing the suffering of others, both physically and psychologically (Tsoukas & March, 2018). Collectively, these traits are associated with aggression and violence (Webster et al., 2016; Paulhus, Neuman & Hare, 2016; Tetreault et al., 2021) and have recently been linked with increased desires for control over romantic partners (Hughes and Samuels, 2021). Considering such

* Corresponding author.

E-mail address: dssh15@exchange.shu.ac.uk (S. Hughes).<https://doi.org/10.1016/j.heliyon.2021.e07389>

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interpersonal styles, coupled with heightened skills for recognising vulnerability (Ritchie et al., 2019), it is plausible to assert that outdoor sex services may therefore provide ideal environments for these individuals to exploit particularly vulnerable women.

1.1. The present study

Although scholars have recently highlighted the need to research male attitudes towards female sex workers in higher order traits including the Dark Tetrad personalities, we are not aware of any such research and particularly not in relation to the different forms of sex services (Davis et al., 2020). We therefore investigated links between male Dark Tetrad personality traits and preferences for outdoor/indoor female sex worker services, as well as the mediating effects of perceiving female sex workers as deviant and as victims. Removing victim status (i.e., believing women have a choice) and perceiving women as deviant are cognitive processes associated with hostile sexism, which strongly predicts hateful attitudes towards women (Sanchez-Ruiz et al., 2021). As these dark traits also positively predict hostile sexism (Gluck et al., 2020; Jonason et al., 2010), such attitudes may influence preferences for different forms of sex services. We expected to find positive relations between all Dark Tetrad traits and stronger preferences for outdoor compared to indoor female sex services. As psychopathy has previously been suggested to be the most dominant and central trait amongst the Dark Tetrad (Dinic et al., 2020), we expected psychopathy to emerge as the strongest positive predictor of outdoor preferences. Furthermore, we predicted that perceptions of sex worker choice and deviancy would mediate links between all traits and sex worker preferences.

2. Method

2.1. Participants and procedure

This study received ethical approval by Sheffield Hallam University's psychology research ethics department as well as University of Derby's Business School and was conducted in accordance with all regulations. All participants provided informed consent prior to completing the study. A Priori sample size calculation for structural equation modelling analyses revealed that the minimum sample size required to obtain statistical power of .80 was 266 (Soper, 2017). Our actual sample includes data from 347 UK heterosexual male participants ($M_{Age} = 28$, $SD = 8.02$). Participants were invited to participate in an online survey investigating personality and female sex worker services via Prolific data collecting platform. All participants received average monetary compensation set by Prolific. Due to the nature of the study, we instructed Prolific to invite heterosexual male participants over the age of 18 only, excluding all female participation. Participants were also informed that some of the questions were of a sensitive nature, relating to prostitution and were advised not to take part in the survey if they had previously experienced heightened distress in relation to such services.

2.2. Measures

The 10- item Short Sadistic Impulse Scale (O'Meara et al., 2011) was used to measure sadism. Using a (0 = unlike me, 1 = like me) scale, participants indicated the extent to which they agreed with each statement. For example, "I enjoy seeing people get hurt". Items were summed to create a total sadism index. The maximum score on this scale is 10 and a minimum of zero, with higher scores representing higher levels of everyday sadism. As sadism is measured on a continuum, and employs a dimensional construct, the scale imposes no strict criteria for cut off points (O'Meara et al., 2011; Millon and Davis, 1996). This scale has previously presented reliable internal consistency; $\alpha = .86$ (Hughes and Samuels, 2021).

The 27- item Short Dark Triad 3 (Jones and Paulhus, 2014) was used to measure the Dark Triad traits. Using (1 = strongly disagree to 5 =

totally agree) scale, participants indicated their agreement with statements on each trait. Psychopathy: "I'll say anything to get what I want" Narcissism: "people see me as a natural leader". Machiavellianism: "most people can be manipulated". Total indexes for each trait were calculated. The maximum score for each scale is 45, with higher scores representative of higher levels of each trait. Mean scores above 3.86 are considered outside the normal range (Jones and Paulhus, 2014), but are not indicative of personality disorders. The scale has previously presented reliable internal consistency. Psychopathy: $\alpha = .81$; Narcissism: $\alpha = .79$; Machiavellianism: $\alpha = .86$ (Maples et al., 2014).

Attitudes towards female sex workers were measured using the 29-item Attitudes Towards Prostitutes and Prostitution Scale (Levin and Peled, 2011). Subscales include prostitutes as normative/deviant and perceptions of victim/choice. Items include: 'women choose to be prostitutes' (choice/victim) 'prostitutes are drug addicts' (normative/deviant). Participants rate their agreement with each item using (1 = fully disagree agree to 5 = fully agree) scale. The maximum scores for each scale are 95 (victim/choice) and 105 (deviant/normalised), with higher scores being representative of perceptions that female sex workers are deviant and choose their profession. The scale has previously presented reliable internal consistency; $\alpha = .81$ (Levin and Peled, 2011).

We devised ten items (5 outdoor, 5 indoor) to explore preferences for outdoor/indoor sex services using a (1 = strongly disagree, 5 = strongly agree) scale. Items include: "I would be willing to pay/have sex with a street-based female sex worker (outdoor services) and "I would be willing to pay/have sex with a female sex worker from an escort agency (indoor services). Items were summed to create total indexes for outdoor and indoor preferences with higher scores representing increased preferences for outdoor/indoor female sex services. In our initial pilot sample, the scale presented reliable internal consistency; (outdoor services, $\alpha = .81$; indoor services $\alpha = .89$).

3. Results

Descriptive statistics and correlations are presented in Table 1, including reliability estimates for the present sample. To explore links between the Dark Tetrad and female sex services we conducted multiple path analyses using SPSS AMOS (analysis of moment structures) to reduce possibilities of making type 1 errors (Schumacker and Lomax, 2016). The Dark Tetrad traits were entered as exogenous variables, with age and relationship as controls. Outdoor/indoor preferences, female choice and female deviancy were entered as endogenous variables. Indices revealed a model fit of $X^2(4) = 10.10$, RMSEA = 0.06, NFI = .98, CFI = .98, TLI = .94. Being in a relationship negatively predicted preferences for outdoor but not indoor services across traits ($\beta = -0.17$, $p = 0.006$). Age revealed no significant effects.

Links were explored at the residual and individual level to rule out the possibility of producing unmeaningful relations when these traits are explored at the residual level only (Russel and King, 2016). Direct pathways are presented in Table 2. Psychopathy revealed direct effects on outdoor preferences only and positively predicted sex worker deviancy and choice. At the individual level sadism positively predicted preferences for outdoor sex services and positively predicted sex worker choice. Narcissism positively predicted sex worker choice and deviancy. Sex worker deviancy mediated the effects of narcissism ($\beta = -0.03$, 95% CI - 0.030–0.004) and psychopathy ($\beta = -0.03$, 95% CI - 0.035 – - 0.005) on indoor preferences, whereas sex worker choice mediated effects of narcissism on outdoor sex preferences ($\beta = 0.05$, 95% CI - 0.004 – - 0.070). There were no direct or indirect effects of Machiavellianism across variables.

4. Discussion

We explored links between male Dark Tetrad personality traits and outdoor/indoor female sex worker preferences, and the mediating effects of perceptions of sex worker choice and deviancy. Psychopathy and

Table 1. Descriptive statistics, correlations and Cronbach's Alpha for study variables.

	variables	Mean	SD	1.	2.	3.	4.	5.	6.	7.	8.
1.	Sadism	5.67	0.84	(0.70)							
2.	Psychopathy	21.18	5.34	0.43**	(0.78)						
3.	Machiavellianism	28.87	5.76	0.27**	0.52**	(0.78)					
4.	Narcissism	23.77	5.36	0.15**	0.38**	0.23**	(0.74)				
5.	Sex worker deviancy	44.01	9.50	0.21**	0.36**	0.18*	0.28**	(0.78)			
6.	Sex worker choice	37.27	5.56	0.23**	0.29**	0.09	0.20**	0.07**	(0.78)		
7.	Outdoor services	9.47	4.42	0.20**	0.33**	0.09	0.07	0.12*	0.16*	(0.89)	
8.	Indoor services	9.52	4.56	0.20**	0.29**	0.14*	0.07	0.02	0.10	0.80**	(0.90)

Note: Reliability estimates are reported in parentheses, * $p < 0.05$, ** $p < 0.001$.

Table 2. Standardised regression weights for direct pathways.

Parameter estimates	Residual model	Individual model
Psychopathy → prostitutes/choice	0.25*	0.29*
Psychopathy → prostitutes/deviant	0.12	0.16*
Sadism → prostitutes/choice	0.15	0.24*
Sadism → prostitutes/deviant	- 0.03	0.04
Machiavellianism → prostitutes/choice	- 0.08	0.09
Machiavellianism → prostitutes/deviant	0.03	0.10
Narcissism → prostitutes/choice	0.10	0.20*
Narcissism → prostitutes/deviant	0.11*	0.15*
Psychopathy → Outdoor preferences	0.36*	0.32*
Sadism → Outdoor preferences	0.05	0.15*
Machiavellianism → outdoor preferences	-0.10	0.08
Narcissism → outdoor preferences	-0.05	0.07
Psychopathy → indoor preferences	0.01	0.06
Sadism → indoor preferences	0.03	0.05
Machiavellianism → indoor preferences	0.06	0.08
Narcissism → indoor preferences	0.03	0.04

Note: * $p < .05$.

sadism positively predicted preferences for outdoor sex services only. It is perhaps not surprising that exploitative individuals with skills for identifying vulnerability reveal stronger preferences for particularly vulnerable women offering outdoor sex. Individuals high in psychopathy may prefer outdoor services for obtaining power (Kajonius et al., 2015; Hare, 2006), and to achieve certain goals (Filipkowski and Derbis, 2020; Hare, 1996), whereas opportunities to behave aggressively towards others may induce pleasure for sadistic individuals (Russell et al., 2017; Lee, 2019). Such pleasure and successful goal achievements are less likely when using indoor sex services due to set rules and increased protection usually provided via third-party organisations.

Sex worker choice mediated positive relations between narcissism and preferences for outdoor sex services only. As narcissists exert increased efforts in impression management (Bastian, 2019; Steinmetz et al., 2017), believing sex workers choose their profession may offer narcissistic justifications for using outdoor sex services. Perceiving sex workers as deviant mediated the negative relations between narcissism and psychopathy and indoor services. Relatedly, male perceptions of female deviance are a form of hostile sexism, referring to male preferences to maintain power over women. Women are perceived as deviant if they pose a threat to male dominance and power (de Zavala and Bierwaczek, 2020). As psychopathy and narcissism relate to increased desires for power and dominance (Waddell et al., 2020; Hare, 1996), indoor sex workers may pose additional threats due to protection from third-party involvement. Whereas outdoor sex workers largely work in isolation. Future research could explore whether Dark Tetrad males perceive indoor sex workers as more deviant than outdoor sex workers.

Machiavellianism did however emerge as a non-significant predictor of preferences for outdoor and indoor sex services. Although Machiavellianism is commonly linked with exploitative mating strategies, these individuals demonstrate assortative mating preferences for social status and wealth when seeking short and long-term partners (Iná ncsi et al., 2016; Marcinkowska et al., 2021; Birkas et al., 2020). Status and wealth are external characteristics rarely associated with female sex workers. Furthermore, Machiavellian males report longer-term mating orientations, take fewer risks, and report higher levels of sexual disgust (Burtaverde et al., 2021; Karandikar et al., 2019), possibly resulting in reduced interests in engaging with either form of sex services. Additionally, Machiavellianism did not predict negative attitudes towards sex workers. Machiavellian males may therefore be less interested in using female sex services compared to fellow Dark Tetrad males.

4.1. Limitations and future research

Several limitations from our study should be addressed, however. First, we asked participants to rate their preferences for sex services, rather than obtain actual behavioural measures. Previous research has however reported positive relations between the original Dark Triad preferences and behavioural outcomes (Gott and Hetzel-Riggin, 2018). Second, we cannot infer causal conclusions due to the cross-sectional nature of our research, thus future research would benefit from using more objective behavioural methods. Finally, as 90% of our sample were aged between 18 and 38 years, we cannot really account for Dark Tetrad traits in older men who may reveal increased preferences for indoor services (Milrod and Monto, 2017) for companionship. Future research could address this as well as explore motivations behind preferences, including whether services are preferred for companionship or casual sex.

5. Conclusion

Overall, we contribute towards the existing literature on male Dark Tetrad personality traits by providing novel findings in relation to female sex worker services. Females who offer outdoor compared to indoor sex services report increased incidences of aggression and violence and are recognised as being particularly vulnerable to exploitative individuals who are adept at recognising vulnerability. Consequently, it is important to identify individual preferences for using outdoor sex services, so that awareness can be increased for these particularly vulnerable women. Our results highlight the importance of considering males high in Dark Tetrad narcissism and particularly sadism and psychopathy, who reported increased preferences for outdoor compared to indoor female sex worker services. We found no evidence linking Machiavellianism to either form of female sex worker preferences. As these findings are preliminary in nature, it would be beneficial for future research to determine the replicability of our results.

Declarations

Author contribution statement

Sara Hughes: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Joanna Adhikari: Conceived and designed the experiments; Performed the experiments; Wrote the paper.

Katharine Goulding: Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data.

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Data availability statement

The authors do not have permission to share data.

Declaration of interests statement

The authors declare no conflict of interest.

Additional information

No additional information is available for this paper.

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