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Psychopathy and proclivity to accept rape myths as predictors of negative attitudes towards victims of rape: the moderating role of narcissism

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Abstract

Background Rape myths may harm those who have been sexually assaulted, according to the past literature. This study looked at the associations between grandiose narcissism, psychopathic characteristics, and rape myth acceptance and attitudes towards rape victims in Pakistan. The issue of sexual violence against women and how specific personality characteristics, such as psychopathy, grandiose narcissism, and rape-supporting ideas, may lead to unfavourable views towards sexual assault victims are still being debated. In affluent nations, there has been substantial study on the psychological aspects that influence attitudes towards rape victims, but information on developing nations like Pakistan is lacking.

Method The study used a cross-sectional methodology with a purposive sample of 430 individuals, ranging in age from 18 to 68. The appropriate sample size was determined using a G*Power analysis. In order to analyse the data, SPSS 21.0 was used. Stepwise regression, MANOVA, and moderated mediation analysis were all used.

Results All variables showed acceptable levels of Cronbach's alpha reliability. Rape myth acceptance was significantly associated with attitudes towards rape, primary and secondary psychopathy, and grandiose narcissism. Rape myth acceptance, primary psychopathy, and grandiose narcissism significantly predicted attitudes towards rape victims. Moreover, grandiose narcissism showed a conditional indirect effect through primary psychopathy on the relationship between rape myth acceptance and attitudes towards rape victims, according to the results, which showed that rape myth acceptance, primary psychopathy, and those attitudes all had significant effects on attitudes towards rape victims.

Conclusions In conclusion, it has been assessed that unfavourable views towards victims of sexual assault in Pakistan were substantially correlated with high levels of rape myth acceptance, primary psychopathy, and grandiose narcissism. Furthermore, the study discovered that these variables strongly impacted views towards rape victims. Additionally, rape myth acceptance, levels of primary psychopathy, and attitudes towards rape victims all showed significant gender differences. Moreover, grandiose narcissism had a significant conditional effect on the association between rape myth acceptance and attitudes towards rape victims via the mediation of primary psychopathy. Secondary psychopathy did not play a role in this predictive relationship.

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Clinical impact statement The study's findings highlighted the widespread prevalence of rape myths, the importance of primary psychopathy and grandiose narcissism, and their predictive value in highlighting peoples' attitudes and beliefs regarding sexual assault victims. The study also emphasizes the influence that grandiose narcissism and psychopathic qualities have on the predicted relationship between rape myths and attitudes towards sexual assault victims. The findings have significant policy implications since rape victims in Pakistan frequently bear a great deal of responsibility and receive little legal assistance. This study can assist in guiding initiatives to solve these problems and enhance the assistance provided to rape victims.

Keywords Primary psychopathy, Rape myths acceptance, Attitudes towards rape victims, Grandiose narcissism, Mediation analysis

Background

In recent decades, the number of documented rapes in Punjab, the most populous province in Pakistan, has increased significantly. According to a Punjab police report cited by Kazmi et al. (2023), tens of thousands of sexual assault charges are filed annually in the province. As a result of social and cultural constraints, it is estimated that the actual number of such occurrences in the USA is greater, as many female survivors do not disclose. Several social and cultural factors, including traditional values and beliefs, concurrence with rape falsehoods, and gender roles, have been identified as influencing rape victims' negative attitudes in the region (Kunst et al. 2019). Given the preceding findings, it is crucial to investigate the relationships between rape myth acceptance, causal attributions, empathy for rape victims, and attitudes towards rape victims in Pakistan. Our comprehension of Pakistani public opinion regarding rape victims is limited, according to a previous study (Hudspith et al. 2021).

Psychopathy, grandiose narcissism, and rape-supporting beliefs have been linked to antipathy towards sexual assault victims. Jaffe et al. (2021) have found that women are frequently subjected to sexual victimization, whether through statements, remarks, or physical attempts at forced sexual intercourse. Researchers have long questioned the attitudes of individuals towards rape victims (Leverick 2020). These beliefs affect how these situations are approached and handled. They are also the focus of a number of educational initiatives designed to raise awareness of sexual assault (Harris 2018). Rape myths, gender roles and stereotypes, societal and cultural norms, personal biases and experiences, psychopathic tendencies, and the perpetrator's previous exposure to sexual violence may be significant factors influencing attitudes towards rape victims (Kim & Santiago 2020).

The perspectives of rape victims vary by culture and person. In some cultures, rape victims are considered criminals, while in others, they are considered victims (Lichty & Gowen 2021). Moreover, while some cultures may view rape victims with compassion and understanding, others may regard them with humiliation and

disgrace. Regarding sexual assault and rape victims, public opinion is overwhelmingly negative (Kazmi et al. 2023).

Research has shown that individuals are more likely to hold the perpetrator accountable than the victim (Reynolds 2022). People can charge that the victim was in the wrong location at the wrong time, neglected to take the required precautions, or decided not to protect oneself (Pacilli et al. 2022). Victim blaming may increase as a consequence, and rape victims may experience increased stigma (Persson & Dhingra, 2022). Additionally, rape victims may be associated with negative stereotypes, such as being promiscuous or "damaged goods" (Li & Zheng 2022). These preconceived ideas might harm rape victims' mental and emotional health, which could lead to feelings of shame and remorse (Reich et al. 2022). Additionally, several personality traits are linked to adverse opinions and convictions about rape victims. According to research, psychopaths are more likely to minimize or rationalize the gravity of rape (Methot-Jones et al. 2019). As a consequence, traits of psychopathy may sometimes be connected to an opinion against sexual assault. DeLisle et al. (2019) claim that those with psychopathic traits are more likely to accuse a victim of sexual assault. Psychopaths are more likely to concur with notions such as "rape is not always serious" and "a woman can be partially responsible for being raped." (Sussenbach & Eutenier, 2022). Grandiosity, lack of empathy, and an intense need to be liked and revered are all traits of grandiose narcissism. These qualities often emerge as arrogance, a sense of superiority, and an excessive need for praise and attention (Zeigler-Hill & Andrews 2021). Another psychopathic aspect of these individuals is that they may exploit others in order to accomplish their objectives. Also lacking is empathy. Additionally, their inclination to control others may make it easier for them to engage in a variety of sexual activities, and their egocentrism may cause them to believe they can get away with sexual assault (Jonason et al. 2017). It is crucial to comprehend other elements that influence perceptions of rape and sexual assault.

The different ways that men and women are socialized to associate their sexuality with either strength or passivity may have an impact on how guilty rape victims feel about themselves (Garza & Franklin 2021).

Furthermore, the prevalence of rape myths, such as the belief that women relish being assaulted or that a woman must resist to be considered a “real” victim, can influence attitudes towards rape victims (Holland et al. 2020). Similarly, narcissistic individuals may be more likely to believe rape myths due to their lack of empathy and propensity to view themselves as superior to others (Stabile et al. 2019). If they perceive that the victim did not meet the narcissist’s expectations or desires, they may be more likely to blame the victim for the rape (Marchlewska et al. 2022). Moreover, narcissistic individuals may be more likely to view rape as a form of dominance and control, leading them to support rape myths that support this viewpoint (Zeigler-Hill et al. & Andrews 2021).

Purpose of the study

Studies assessing the role of psychosocial factors influencing attitudes towards rape victims have primarily focused on developed nations. However, information on developing nations like Pakistan is limited. Few studies have examined the combined predictive power of psychopathic traits, narcissism, and rape myth acceptance in relation to attitudes towards rape victims. Additionally, there is a lack of knowledge on the impact of psychopathy, rape myths, and grandiose narcissism on sexual assault victims’ attitudes and beliefs in Pakistan. The complex nature of psychopathy is poorly understood, and current research may not fully encompass its spectrum of experiences and behaviours. This study aims to fill these voids by investigating the relationship between rape myths, attitudes towards rape victims, and grandiose narcissism.

Aims and objectives

- To assess the predictive role of primary psychopathy, rape myth acceptance, and grandiose narcissism in influencing attitudes towards rape
- To analyse the negative predictive influence of psychopathic traits and narcissism on attitudes towards rape
- To review and analyse the existing literature on psychopathy, rape myths, narcissism, and an interplay among these factors in order to identify the gaps in the literature
- To assess and develop a research methodology aimed at analysis as well as examination of the predictive associations among psychopathy, rape myth acceptance, and narcissism with attitudes towards rape victims

Hypotheses

1. Primary psychopathy, rape myth acceptance, and grandiose narcissism are going to be positively and significantly associated with negative attitudes towards rape victims.
2. Primary psychopathy, rape myths acceptance, and grandiose narcissism would significantly predict attitudes towards rape.
3. There would be significant mean differences among participants with regard to gender and liberal vs. conservative orientations for primary psychopathy, rape myths acceptance, and attitudes towards rape.
4. Grandiose narcissism would account for conditional indirect effects of psychopathy on the association between rape myths acceptance and attitudes towards rape.

Methods

Participants

For the purpose of evaluating the study’s aims and objectives, a cross-sectional study design with 430 participants was employed. A sensitivity analysis using G*Power analysis and 95% confidence intervals was conducted to determine the sample size. G*Power analysis is a statistical software that helps researchers determine the appropriate sample size for an investigation (Kang 2021). The outcomes demonstrated that this sample size was adequate for calculating the necessary effect sizes. From among the participants, 210 were male, and 220 were female with a majority of them being in the age range of 18 to 25 years of age. No transgendered or non-binary participants were sampled during the study. Using purposive sampling, the participants were selected in order to evaluate their attitudes towards rape victims.

Instruments

Attitude towards rape victims scale

This scale was devised by Ward (1988) for the purpose of identifying and analysing diverse attitudes towards rape victims. The scale consists of 25 items with response options ranging from 0 to 4, with a scoring range of 0 to 100. Higher scores are indicative of more adverse and negative attitudes towards victims of sexual assault, as indicated by the scoring criteria. It has been determined that the alpha reliability of the scale is 0.83, which is within the acceptable range (Ward 1988).

Levenson self-report psychopathy scale

The Levenson Self-Report Psychopathy Scale (LSRP) was used to assess each individual’s unique psychopathic

traits and orientation. It is recognized as a self-report questionnaire that assesses callousness, manipulation, a lack of empathy, and superficial attractiveness—interpersonal and affective characteristics of psychopathy. People with high primary psychopathy scores are often less responsive to punishment and unanxious. This aspect is associated with erratic and unstable lives as well as impulsive and abnormal behaviours. Secondary psychopathy is characterized by impulsivity, poor behavioural control, and a propensity for dangerous activity. Each LSRP item is scored using a 5-point Likert scale ranging from “strongly disagree” to “strongly agree.” Respondents indicate how closely each statement reflects their own attitudes and behaviours. Notably, the LSRP is not used for clinical diagnosis but rather to evaluate psychopathic traits in the general population. Individual differences in psychopathic tendencies can be examined in research studies, forensic evaluations, and numerous psychological contexts. As with any psychological assessment, the LSRP should only be administered and interpreted by qualified professionals to ensure accurate results and appropriate application. In addition, self-report questionnaires like the LSRP may be susceptible to response biases; therefore, it is essential to account for these variables when interpreting the results. Miller et al. (2008) and Levenson et al. (1995) determined that the internal consistency reliability of the LSRP ranges between 0.72 and 0.82.

Rape myth acceptance scale

The Illinois Rape Myths Adoption Scale (IRMAS), according to Burt (1980), is a widely used psychological tool for determining a person’s adoption of rape myths. Respondents may rate how much they agree or disagree with each of the 22 questions on this 5-point Likert scale that describe various rape myths. A greater inclination to accept rape myths is indicated by higher IRMAS scores. In 2011, McMahon and Farmer developed four subscales to evaluate ideas such as “she asked for it” and “he didn’t mean to,” among others. The scale’s validity has been shown, and it is widely used to assess attitudes about rape convictions. The IRMAS has been used widely in studies owing to its relevance in assessing the acceptability of rape stereotypes and its reliability. With a dependability estimate of 0.93, it demonstrated a good level of internal consistency, according to McMahon and Farmer (2011). The factor structure of the IRMAS in 2021 was also examined by Das and Bhattacharjee, who discovered that it demonstrates significant cross-cultural consistency, making it a useful instrument for determining the acceptability of rape myths in various groups. The IRMAS was found adequate and preferred for assessing the prevalence and acceptability of rape myth acceptance among

the Pakistani community because of its robustness and consistent cross-cultural application.

Grandiose narcissism scale

The Grandiose Narcissism Scale (GNS) is a psychometric instrument designed to measure grandiose narcissism, a construct characterized by exaggerated self-importance, entitlement, and a preoccupation with unlimited success and power. The 33-item GNS generates a full-scale score and seven subscale scores, each corresponding to one of the seven factors identified by the Narcissistic Personality Inventory (NPI). The scale’s flexible presentation format allows for various administration protocols, reducing response biases and increasing psychometric robustness. Respondents rate their agreement with each GNS item, and the cumulative GNS score indicates the extent to which the respondent displays grandiose narcissistic traits in their self-perception and behaviour. The GNS demonstrates high internal consistency, with an alpha coefficient of 0.91, making it a valuable tool in personality assessment.

Procedure

The institutional ethics board was approached in the beginning to get permission to carry out this research, and it gave its approval as being ethical. According to GCU-IIB 25113, dated October 31, 2022, the research was approved by the ethics review board of the relevant institution. The topics emphasized in the Helsinki Declaration were closely followed while evaluating the study’s ethical aspects. The study’s objectives were explained to the participants, which made it easier to get their informed permission. Without disclosing the participants’ names or other personally identifiable information, the participant data was gathered. Additionally, the research’s results would not be used for commercial gain; it was told to the participants. A Google Forms survey was created using the aforementioned tools. Potential respondents received links to the online poll via social media platforms including Facebook and WhatsApp. Additionally, the participants were requested to share the online survey’s URL with their connections.

Data collection

The instruments were incorporated into a Google Form used for data collection. A link to the questionnaire was made available to all prospective participants. Using online platforms such as WhatsApp and Facebook, a large sample size was collected through data collection. In addition, participants were encouraged to share the URLs via their social networks. The process of data acquisition continued until the intended sample size was reached.

Data analysis

The study's analyses were conducted using Windows versions of AMOS 24.0 and SPSS 25. First, descriptive statistics and correlation analysis were employed to evaluate the fundamental hypotheses of the studies and the relationships between the variables. When evaluating the kurtosis and skewness values, all values less than $|2|$ were considered suitable for a normal distribution. As the second stage of the research, a moderated mediation analysis was conducted to examine the mediating role of primary psychopathy in the relationship between acceptance of rape myths and attitudes towards rape victims, using grandiose narcissism as a moderator. Version 3.5 (model 8) of the PROCESS macro for SPSS was used to investigate the moderated mediation model using the bootstrap method (10,000 bootstrapped samples) to determine the significance of the indirect effect.

Results

Table 1 depicts the demographic characteristics of the participants at baseline. It was found that 210 participants were male, and 220 were female with a majority of them being in the age range of 18 to 25 years of age. Moreover, 320 participants were single, 80 were married, and remaining were either divorced or separated. In terms of education, a majority of the participants were either graduate or post-graduate with a low percentage of participants having 10 years of basic education. Furthermore, 300 participants identified as being liberal, while 130 viewed themselves as having conservative orientations.

As shown in Tables 2 and 3, the study found a significant positive correlation between rape myth acceptance and attitudes towards sexual assault victims. Grandiose narcissism, primary psychopathy, secondary psychopathy, and the IRMAS subscales were positively and strongly associated with attitudes towards sexual assault victims. The research variables exhibited acceptable levels of reliability and strong internal consistency.

Table 4 presents a multivariate analysis of mean differences regarding the primary effect of gender and liberal versus conservative orientation on attitudes towards rape victims, acceptance of rape myths, and primary psychopathy. The results indicated that gender has an effect on the acceptability of rape stereotypes and primary psychopathy. Males scored high on both indicators ($M = 52.94$, $SD = 14.47$) for rape myth acceptance and ($M = 29.82$, $SD = 20.28$) for primary psychopathy. Furthermore, liberal versus conservative orientations had a significant effect on attitudes towards rape victims. Wilk's λ (3, 409) = 0.94, $p = .000$, and 2 = .01, with conservative individuals scoring high on both indicators depicting attitudes towards rape victims and adoption of rape myth acceptance ($M = 53.10$,

Table 1 Sociodemographic characteristics of participants at baseline

Demographics	N	%
Gender		
Male	210	42.8
Female	220	57.2
Age		
18 to 25	301	72.4
26 to 35	82	19.7
36 to 45	18	4.3
46 to 68	29	3.6
Marital status		
Single	320	78.6
Married	80	20.4
Separated	15	0.5
Divorced	15	0.5
Education		
Matriculation	30	0.5
Intermediate	38	9.1
Graduate	245	58.9
Post-graduate	113	27.2
Doctorate and post-doctorate	4	4.3
Affiliation		
Liberal	300	63.9
Conservative	130	36.1

Table 2 Psychometric properties of variables

Variables	M	SD	α	No. of items
Attitude towards rape victims	48.54	16.38	0.88	25
Rape Myths Acceptance Scale	60.39	14.30	0.90	19
Psychopathy scale	41.09	7.25	0.90	25
Grandiose narcissism	116.25	13.22	0.92	33

M mean, *SD* standard deviation, α reliability coefficient

$SD = 16.55$; $M = 54.17$, $SD = 14.55$). However, there was no interaction effect between gender and orientation (liberal versus conservative).

Table 5 presents the results of an iterative regression analysis that investigated the predictive effects of rape myth acceptance, primary psychopathy, and grandiosity on attitudes towards rape victims. The assumptions for undertaking a stepwise regression analysis were verified and found to be met. In step 1, acceptance of rape myths significantly predicted attitudes towards rape victims ($\beta = 0.53$; $p = 0.000$); in step 2, rape myth acceptance ($\beta = 0.50$; $p = 0.000$), primary psychopathy ($\beta = 0.09$; $p = 0.016$), and grandiose narcissism ($\beta = 0.23$; $p = 0.001$) each significantly predicted attitudes towards rape victims.

Table 3 Intercorrelations for attitudes towards rape, rape myths acceptance, grandiose narcissism, primary and secondary psychopathy, and the subscales of Rape Myths Acceptance Scale

Variable	1	2	3	4	5	6	7	8	9
1. Attitude towards Rape victims	-	0.46**	0.15**	.08	0.19**	0.37**	0.38**	0.43**	0.30**
2. Rape myths accept.		-	0.11**	0.21**	0.20**	0.77**	0.81**	0.83**	0.82**
3. Grandiose narcissism			-	0.16**	0.60*	.04	.05	0.10**	0.14**
4. Secondary psychopathy				-	0.29	0.16**	0.18**	0.14**	0.19**
5. Primary psychopathy					-	0.16**	0.15**	0.13**	0.17**
6. She asked for it						-	0.50**	0.52**	0.49**
7. It wasn't really rape							-	0.64**	0.56**
8. She lied								-	0.54**
9. He didn't mean to									-

N = 430

** p < .01

Table 4 Multivariate analysis of mean differences with regard to rape-related attitudes, rape myths acceptance, and primary psychopathy

Source	Dependent variable	df	MS	F	P	Partial η ²
Gender	Attitudes towards rape victims	1	2.60	0.10	0.919	.00
	Rape myths acceptance	1	1403.40	7.18	.000	.01
	Primary psychopathy	1	6097.99	17.70	.000	.04
Liberal vs. conservative orientation	Attitudes towards rape victims	1	5375.66	21.35	.000	.04
	Rape myths acceptance	1	2473.08	12.67	.000	.03
	Primary psychopathy	1	1034.91	3.00	.000	.04
Gender x liberal vs. conservative orientation	Attitudes towards rape victims	1	50.87	0.20	.084	.00
	Rape myths acceptance	1	80.32	0.41	0.65	.00
	Primary psychopathy	1	1621.90	4.70	0.52	.01
Error	Attitudes towards rape victims	411	251.79	2.20	0.12	.00
	Rape myths acceptance	411	195.19			
	Primary psychopathy	411	344.445			

For gender, Wilk's λ (3, 409) = 0.94, p = .000, η² = .05. For liberal vs. conservative orientation Wilk's λ (3, 409) = 0.94, p = .000, η² = .05 and for interaction Wilk's λ (3, 409) = 0.98, p = 0.118, η² = .01

Table 5 Regression coefficients for rape myths acceptance, primary psychopathy, and grandiosity on attitudes towards rape victims

Variable	B	β	SE	P	95% CI
Constant					
Step 1					
Rape myths acceptance	0.53	0.46	.04	.000	[0.43, 0.62]
ΔR ²		0.21			
Step 2					
Rape myths acceptance	0.50	.05	0.44	.000	[0.40, 0.60]
Primary psychopathy	.09	0.10	.03	.016	[.01, 0.16]
Grandiose narcissism	0.23	.03	0.21	.001	[0.15, 0.32]
ΔR ²		0.23			

N = 430, CI confidence interval

These variables jointly explained 23% of the variance in attitudes towards rape victims.

In Table 6, we examined whether primary psychopathy mediated the association between rape myth acceptance and attitudes towards rape victims, as well as the moderating influence of grandiose narcissism on this mediation effect. The results demonstrated that rape myth acceptance predict primary psychopathy significantly. It was discovered that grandiose narcissism is a significant and positive predictor of both primary psychopathy and the interaction between rape myth acceptance acquiescence and primary psychopathy. The model explained 14% of the variability in primary psychopathy. These findings suggest that grandiose narcissism may function as a mediator between rape-related lying and primary

Table 6 Moderated mediation effect of grandiose narcissism and conditional indirect effects of primary psychopathy on the association between rape myths acceptance and attitudes towards rape victims

Consequent M (primary psychopathy)					
Antecedent	B	SE	t	p	
X (rape myths acceptance)	.04	.03	1.75	.010	
W (grandiose narcissism)	0.59	.01	12.33	.000	
X × W	.01	.00	28.17	.000	
$R^2 = 0.12; F = 25.16; p < .001$					
Y = attitudes towards rape victims					
X (rape myths acceptance)	0.41	.03	12.13	.000	
M (primary psychopathy)	0.16	.02	3.41	.000	
W (grandiose narcissism)	0.11	.01	6.34	.000	
X × W	0.12	.01	6.22	.000	
$R^2 = 0.19; F = 25.71; p < .001$					
<i>Conditional indirect effects of primary psychopathy on attitudes towards rape victims</i>					
W (grandiose narcissism)	B	SE	LL	UL	
M-1 SD ()	-.02	.01	-.01	.02	
M (0.00)	.01	.01	.04	.02	
M + 1 SD ()	.02	.02	0.14	.02	

Level of confidence for all estimations of confidence intervals in output was 95% with number of bootstrap model samples = 10,000; moreover, W equals to the moderating variable depicted in the above model

psychopathy. The results of the moderated mediation model indicated that attitudes towards rape victims were significantly predicted by primary psychopathy and grandiose narcissism, and that primary psychopathy reduced the effect of rape myth acceptance acquiescence on attitudes towards rape victims. The interaction between rape myth acceptance and grandiose narcissism was also significant in relation to attitudes towards rape victims. A total of 19% of the variance in attitudes towards rape victims was explained by the model. These findings indicate that elevated levels of grandiose narcissism can exacerbate attitudes towards rape victims. Figure 1 provides additional details.

Discussion

The purpose of the research was to determine how Pakistanis' beliefs, personality traits, and attitudes may have influenced their perceptions of sexual assault victims. The focus of the researchers was on three primary factors: rape myth acceptance, psychopathy, and narcissism with grandiose tendencies. The research began by investigating whether some Pakistanis held detrimental and inaccurate beliefs about sexual assault, such as attributing blame to the victim or downplaying the gravity of the crime. The second objective of the study was to determine how certain personality traits, such as psychopathy and grandiose narcissism, may have influenced how individuals acted and thought about others, specifically sexual assault victims.

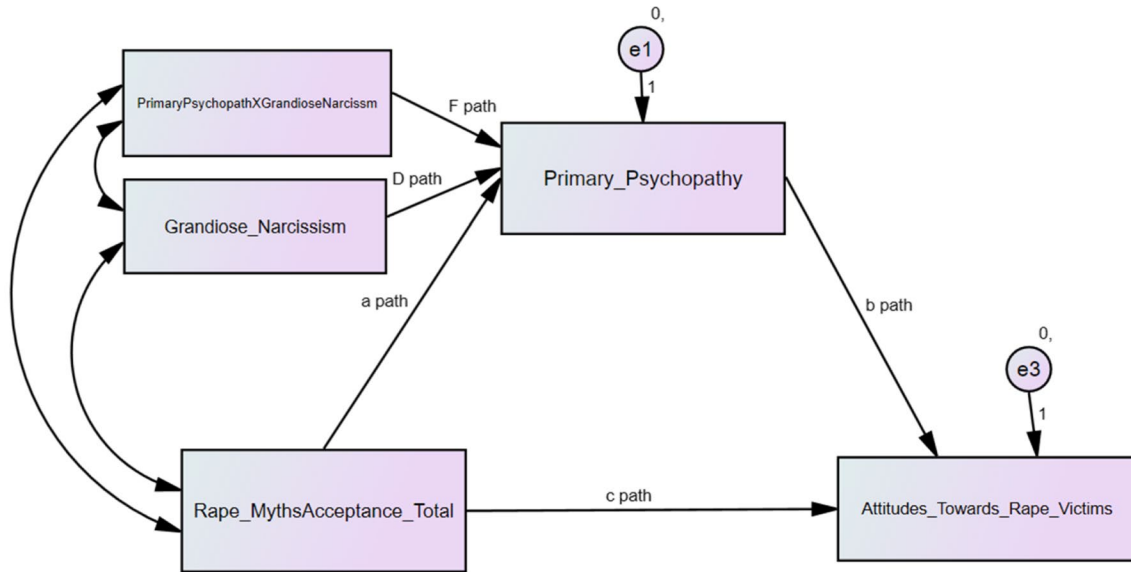
To assess the first hypothesis, the findings showed a significant positive correlation was among negative attitudes towards rape victims and primary psychopathy and grandiose narcissism. Moreover, attitudes towards rape victims had a significant positive association grandiose narcissism, primary psychopathy, secondary psychopathy, and their respective subscales. In addition, grandiose narcissism was found to be extremely and substantially correlated with primary psychopathy and IRMAS subscales. The findings were backed by a research conducted by Mouilso and Calhoun (2012), men who self-reported high levels of psychopathic and narcissistic traits were more likely to report perpetrating sexual violence and reported doing so more frequently. DeLisle et al. (2019) examined the relationship between psychopathic traits at the total score and component level, exposure to violence, and rape myth acceptance (RMA). Researchers discovered a correlation between apathetic affective traits of psychopathy and rape myth acceptance, as well as interpersonal manipulation traits and the belief that women fabricate rape. In addition, males were found to have higher RMA levels and more negative attitudes towards rape victims than females. These findings lend credence to the widely held notion that insensitive affect is associated with sexually aggressive behaviour, with RMA as

the propelling force. Other research (Mouilso & Calhoun 2012; Watts et al. 2017) provides support for the predictive relationship between total psychopathy and facet-level scores with RMA and related constructs, exhibiting the predictive relationship between psychopathic traits and rape myth acceptance.

It was also hypothesized that rape myth acceptance, primary psychopathy, and grandiose narcissism would significantly predict attitudes towards rape victims. This hypothesis is corroborated by the findings of this study. Lyons et al. (2022) surveyed 716 university staff and students online and discovered that psychopathy, narcissism, and acceptance of rape myths were positively correlated with failures related to risk identification, failure to assume responsibility, skills deficits, and audience inhibition in situations involving potential sexual assault. Sanchez-Ruiz et al. (2021) discovered that people with high psychopathy and grandiose narcissism scores were more likely to adopt rape myth acceptance and have more negative and disruptive attitudes towards sexual assault victims. Thirdly, it was hypothesized that significant gender and orientation differences would exist in primary psychopathy, rape myth acceptance, and attitudes towards rape victims. Insofar as gender and conservative orientations accounted for the high scores of male participants on rape myths acquiescence, primary psychopathy, and negative attitudes towards rape victims, the results of this study partially supported this hypothesis. According to Manoussaki and Veitch (2015), males are more likely to perpetrate rape forgeries due to their psychopathic tendencies.

According to Klement et al. (2019), psychopathic and narcissistic orientations in males can contribute to the development of hostile sexual attitudes towards women. Males are more likely to exhibit psychopathic tendencies and score higher on the rape myth acceptability scale, according to Long and Herr (2022) and Prusik et al. (2021). Regarding the impact of social and cultural forces, Kazmi et al. (2023) assert that prevalent cultural beliefs can have a negative effect on rape victims. Anderson and Overby (2021) argue that rape myth acceptance are not unique to developing nations, and that the majority of them are shared by cultures worldwide, resulting in increased victim blaming. Men and women in Southeast Asian cultures adhere to cultural and traditional norms, which can lead to the adoption of rape myths such as "it wasn't really rape" and "she asked for it." Jamshed and Kamal (2021) have also observed that cultural factors in Pakistan can influence conservative orientations among the population, leading to negative attitudes towards rape victims and an increase in the acceptability of rape myths. Therefore, it is evident that these rape myths, which are believed to be more prevalent in developing

Hypothesized Moderated Mediation Model



Moderated Mediation Model depicting Conditional Indirect Effects

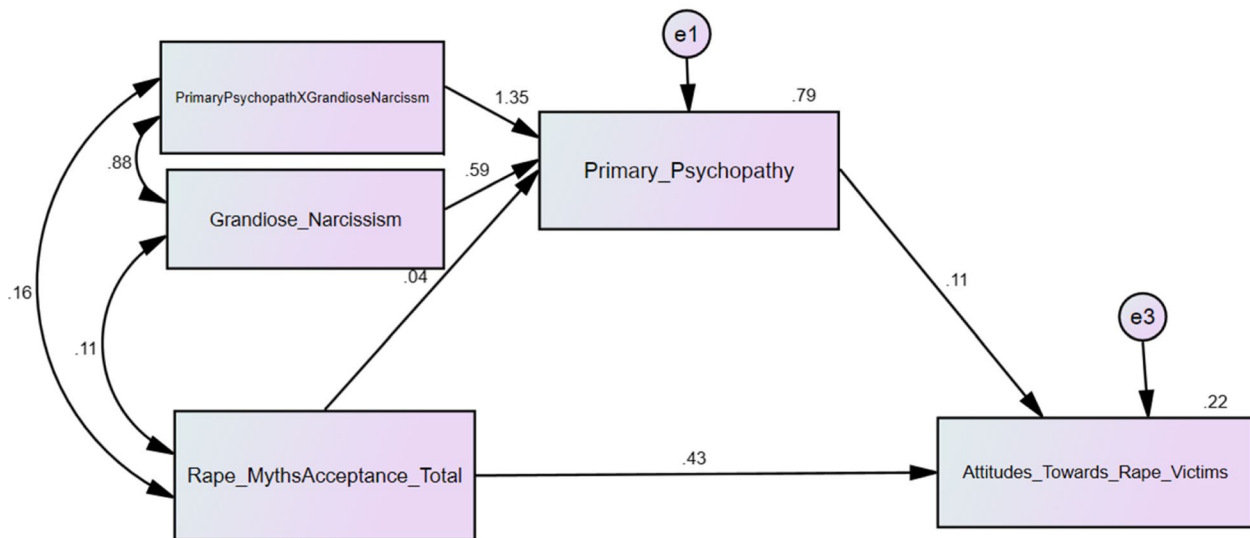


Fig. 1 Hypothesized moderated mediation model

regions, can have negative effects on victims seeking justice. In this study, we hypothesized that grandiose narcissism would exert indirect conditional effects on the mediating role of primary psychopathy in the relationship between adoption of a rape narrative and attitudes towards rape victims. This hypothesis was supported by compelling empirical evidence that confirmed the

interdependence of these personality constructs in shaping attitudes towards sexual violence.

In light of prior research by Willis et al. (2017), who highlighted the moderating role of narcissism in the relationship between acceptance of rape myths and attitudes towards rape, our findings corroborate their hypothesis that individuals who endorse rape myths may hold

distorted beliefs regarding the definition of rape. This may prevent perpetrators and victims from recognizing their encounters as assaults. These insights shed light on the intricate interaction between grandiose narcissism and the adoption of rape myths, as well as their combined influence on attitudes towards rape victims. In addition, Methot-Jones et al. (2019) shed light on the role of dehumanization in this dynamic by highlighting the potential link between psychopathy and violent, discriminatory behaviour towards women. Consistent with their findings, our research indicates that psychopathic individuals may hold dehumanizing attitudes towards women and view them as subhuman. In turn, this dehumanization may contribute to the development of attitudes that view women as inferior and small minded. Similarly to Jonason et al. (2017) and Russel and King (2020), our findings support the influential roles of narcissism and psychopathy in influencing negative attitudes towards sexual assault victims. By corroborating these findings, our research improves our understanding of how these personality traits may contribute to the formulation of prejudiced perceptions of victims of sexual violence.

Conclusion

Significant positive correlations were found between the acceptance of rape myths, primary psychopathy, and grandiose narcissism and attitudes towards sexual assault victims. These variables are strong predictors of attitudes towards rape victims and have a substantial impact on perceptions of sexual violence. Participant adoption of rape myth acceptance, primary psychopathy, and attitudes towards rape victims revealed significant gender differences, according to the study. The fact that grandiose narcissism moderated the relationship between psychopathy, acceptance of rape myths, and attitudes towards rape victims suggests that grandiose narcissism may influence the strength and nature of associations between psychopathic traits, acceptance of rape myths, and attitudes towards rape victims. This highlights the importance of understanding the influence of personality traits and belief systems on victims' perceptions, as well as their potential effects on social attitudes and support.

Limitations and suggestions for future research

This study had several limitations. First, the presence of significant gender differences may be indicative of problems in which the variables or constructs were operationalized. Another limitation is the unequal gender distribution and the fact that data collection was done. This may have resulted in oversampling of young adults, thus limiting the generalizability of the results to other sociocultural settings in Pakistan. The majority of participants' elevated sociocultural standing is an additional

limitation of the study. As a consequence, it is likely that studies involving samples of individuals with lower educational and sociocultural levels will yield distinct results. Future research should address the limitations of this study, such as the lack of a random and diverse sample. This can be achieved by conducting experimental research to ascertain the causal relationship between rape myth belief, the role of causal attributions, and negative attitudes towards rape victims. This would help determine the extent to which these factors contribute to negative attitudes towards rape victims and how to counteract them. To increase the generalizability of the results, efforts should be made to gain access to a larger and more diverse sample.

Implications

This study's findings shed light on crucial aspects of attitudes towards sexual assault victims in Pakistan. Due to the high prevalence of rape-related attitudes and beliefs, there is an imperative need to address and dispel these harmful misconceptions in society. Primary psychopathy and grandiose narcissism as predictors of negative attitudes towards rape victims provide valuable insight into the psychological factors that may contribute to victim blaming and a lack of empathy. If we comprehend how psychopathy and grandiose narcissism influence perceptions of rape victims, we may be able to identify future research opportunities. Understanding the complex interaction between personal psychological variables and societal perspectives on sexual assault survivors may require further research into the emergence and manifestation of these personality traits in different cultural contexts. Understanding how these attitudes evolve over time and whether treatments can mitigate negative perceptions can aid in the development of targeted preventive measures. Due to the study's emphasis on individual factors, an immediate examination of the societal and cultural influences on attitudes towards rape victims is required. Examining how cultural norms, gender roles, and societal expectations affect how survivors of sexual assault are perceived could provide a more nuanced understanding of the issue. This research may contribute to the development of culturally sensitive treatments and regulations that combat the root causes of victim blaming and strengthen the position of survivors. Even though the focus of the current study was on the policy implications in Pakistan, comparative research in other nations and regions is also feasible. Researchers can learn a great deal about the generalizability or specificity of particular elements by examining how attitudes and opinions regarding sexual assault victims vary across cultural contexts. This could facilitate the development of solutions that are more targeted and sensitive to the sociocultural

needs of each person. Given the dynamic nature of societal attitudes and beliefs, longitudinal studies may also provide crucial information on the evolution of views of sexual assault victims over time and the long-term effectiveness of specific therapies. Longitudinal studies can also be used to assess the impact of policy changes on the perceptions of society and the experiences of survivors.

Abbreviations

MANOVA Multivariate analysis of variance
IRMAS Illinois Rape Myths Acceptance Scale

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Authors' contributions

SMAK, SSH, and FM did the conception and data analysis and prepared the manuscript. AHC and SA handled the major revisions, drafting, and data collection.

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Availability of data and materials

Raw data were generated at the SPSS sheet. Derived data supporting the findings of this study are available upon request.

Declarations

Ethics approval and consent to participate

Ethical approval of the study was obtained from the Ethics Review Committee, Government College University, Lahore. Moreover, all participants had issued informed consent for participation in the study. Anonymity and confidentiality of participants were also ensured. There was no harm for participants to contribute to this study. The study was performed following all relevant ethical standards of the Declaration of Helsinki.

Consent for publication

Consent has been given by all authors for publication of this study.

Competing interests

The authors declare that they have no competing interests.

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