

Big Five Personality Traits and Sexual Orientation: A Focus on Conscientiousness in Gay Men

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ABSTRACT

Background: Research into the intersection of personality and sexual orientation remains relatively sparse, despite the established centrality of the Big Five model in differential psychology. Conscientiousness, encompassing, self-discipline, orderliness and goal-directed behavior have received particular theoretical interest as a trait potentially modulated by minority stress and identity management processes in sexual minority men. **Objectives:** To examine whether self-identified gay men differ significantly from heterosexual men on measures of Conscientiousness and the broader Big Five personality profile, and explored potential mediating roles of minority stress, identity concealment, and community connectedness. **Methods:** A community-based sample of 412 adult men (204 gay, 208 heterosexual) in the United Kingdom completed the NEO-PI-R, the Minority Stress Scale, and the Gay Identity Questionnaire via an online platform. Between-group comparisons, multiple regression, and mediation analyses were conducted. **Results:** Gay men scored significantly higher on Conscientiousness ($M = 61.4$, $SD = 9.2$) relative to heterosexual men ($M = 56.8$, $SD = 10.1$; $t(410) = 4.87$, $p < .001$, $d = 0.48$). They also scored higher on Agreeableness and Openness to Experience. Minority stress partially mediated the Conscientiousness difference (indirect effect $\beta = 0.14$, 95% CI [0.07, 0.23]). Community connectedness emerged as a positive moderator. **Conclusions:** Gay men demonstrate elevated Conscientiousness compared to heterosexual male peers, a pattern partially explained by adaptive responses to minority stress. Findings contribute to a growing literature linking social identity processes to dispositional self-regulation, with clinical and public-health implications for understanding protective personality factors in sexual minority populations.

Keywords: Big Five, conscientiousness, sexual orientation, gay men, minority stress, personality, NEO-PI-R, observational study.

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INTRODUCTION

Personality is among the most extensively studied constructs in behavioural science, with the Big Five model — comprising Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism (OCEAN) — representing the dominant framework for understanding stable, cross-culturally replicable dimensions of individual difference (McCrae & Costa, 1999; John et al., 2008). These traits exhibit moderate heritability, relative longitudinal stability across adulthood, and broad predictive validity across life outcomes including occupational performance, physical and mental health, relationship quality, and subjective well-being (Roberts et al., 2007; Ozer & Benet-Martínez, 2006).

Despite the maturity of personality science, systematic examination of how sexual orientation relates to Big Five trait profiles has remained comparatively

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neglected. Existing work, though limited, hints at small but meaningful associations. Allen and Robson (2020) found elevated Openness and Agreeableness in sexual minority compared to heterosexual adults. Lippa (2005, 2008) identified consistent sex-atypical

patterns in gay men and lesbian women across multiple national samples. Yet the mechanisms underlying any such differences whether reflecting biological, developmental, social, or stress-related pathways have rarely been investigated within a single integrated study. Among the Big Five dimensions, Conscientiousness occupies a particularly theoretically interesting position in the context of sexual minority experience. Conscientiousness encompasses orderliness, dutifulness, achievement-striving, self-discipline, deliberation, and competence. From a minority stress perspective (Meyer, 2003), gay men navigating environments of potential stigma, discrimination, and identity concealment may develop heightened vigilance, strategic planning, and self-regulatory resources as adaptive responses — processes closely aligned with the behavioural profile of high Conscientiousness. Conversely, chronic stress associated with minority status might deplete self-regulatory capacity, potentially suppressing Conscientiousness in less socially supported subgroups.

The five-factor model emerged from independent lexical and questionnaire-based research traditions converging on a common factorial solution (Goldberg, 1993; McCrae & Costa, 1987). Openness to Experience reflects intellectual curiosity, aesthetic sensitivity, and receptivity to new ideas. Conscientiousness captures self-control, organisation, and goal persistence. Extraversion indexes sociability, positive affect, and assertiveness. Agreeableness reflects prosocial orientation, cooperativeness, and empathy. Neuroticism represents emotional instability, anxiety, and vulnerability to distress.

Conscientiousness in particular has been termed the 'will to achieve' and demonstrates some of the strongest and most consistent predictive relationships with occupational outcomes, health behaviours, and longevity (Bogg & Roberts, 2004; Roberts et al., 2014). Its facets — order, dutifulness, achievement-striving, self-discipline, deliberation, and competence — map onto Baumeister and Vohs' (2004) model of self-regulation, suggesting that conscientious individuals effectively deploy regulatory resources across life domains.

Sexual Orientation and Personality: Empirical evidence bearing on sexual orientation differences in personality is limited but suggestive. Lippa (2005) conducted one of the earliest large-scale investigations, finding that gay men scored higher on a composite measure of sex-atypical personality (more feminine-stereotyped traits) relative to heterosexual men. Subsequently, Lippa (2008) replicated these patterns across 53 nations using BBC internet survey data,

demonstrating their cross-cultural robustness.

In a more recent analysis using UK population data, Allen and Robson (2020) found that sexual minority men and women scored higher on Openness and Agreeableness but showed more variable patterns on Conscientiousness and Neuroticism. Limiting prior work is heavy reliance on convenience sampling, inconsistent operationalisations of sexual orientation, and infrequent attention to mediating or moderating mechanisms.

Theoretical frameworks have proposed several pathways through which sexual orientation might relate to personality. Developmental perspectives suggest that gender-nonconformity, common in gay men's childhood histories (Bailey & Zucker, 1995), may predict adult personality via socialisation in cross-sex peer groups. Stress-sensitisation models propose that minority stressors activate and habituate emotional and self-regulatory systems in ways that shape dispositional traits over time. Identity management models suggest that the demands of disclosure decisions, code-switching, and navigating heteronormative environments cultivate planfulness and deliberation — core Conscientiousness facets.

Meyer's (2003) minority stress model provides the most influential framework for understanding how stigma-related social conditions affect the mental and physical health of sexual minority individuals. The model distinguishes between distal stressors (objective prejudice events, discrimination, violence) and proximal stressors (internalised homophobia, identity concealment, vigilance/expectation of rejection). Chronic exposure to such stressors is posited to produce excess psychological burden beyond that experienced by heterosexual populations.

Crucially, the model also incorporates resilience-promoting resources including community connectedness, social support, and positive gay identity, which buffer against stressor impacts. Several studies have found that connectedness to the LGBTQ+ community predicts lower psychological distress and higher positive affect in gay men (Frost & Meyer, 2012; Riggle et al., 2008). What remains underexplored is whether minority stress and its resilience counterparts might also shape stable personality dimensions such as Conscientiousness, either through habituating self-regulatory effort or, conversely, through depleting it.

This observational cross-sectional study therefore addressed three primary research questions. First, do self-identified gay men differ from heterosexual men on aggregate Big Five trait scores, and specifically on Conscientiousness? Second, to what extent do minority

stress processes account for any observed Conscientiousness difference? Third, does community connectedness moderate the relationship between minority stress and Conscientiousness?

Author hypothesized that (H1) gay men would score higher on Conscientiousness than heterosexual men; (H2) minority stress would partially mediate the relationship between sexual orientation and Conscientiousness; and (H3) greater community connectedness would buffer the negative effect of minority stress on Conscientiousness.

Methods

This study employed a cross-sectional observational design, comparing self-identified gay and heterosexual men on Big Five personality dimensions and related psychosocial measures. There was no experimental manipulation. All data were collected at a single time-point via online survey, and the study was conducted in accordance with the Declaration of Helsinki. All participants provided written informed consent prior to participation. Sample: A community sample of 412 adult cisgender men was recruited between October 2024 and February 2025 via social media advertisements, LGBTQ+ community organisations, and a university research participation portal. Inclusion criteria required participants to be: (a) aged 18 years or over; (b) cisgender men; (c) UK-resident; and (d) self-identifying as either exclusively homosexual (gay) or exclusively heterosexual on a modified Kinsey scale (scores 0 or 6 only). Bisexual, pansexual, asexual, and questioning individuals were excluded to avoid confounding variation within the sexual minority category, as were individuals who selected Kinsey scores of 1–5.

The final analytic sample comprised 204 gay men and 208 heterosexual men. The groups did not differ significantly on age (Gay: $M = 32.4$ years, $SD = 9.8$; Heterosexual: $M = 31.9$ years, $SD = 10.2$; $t(410) = 0.51$, $p = .61$), educational level ($\chi^2(3) = 3.84$, $p = .28$), or ethnicity composition ($\chi^2(4) = 5.17$, $p = .27$). Socioeconomic status, measured via the National Statistics Socio-economic Classification (NS-SEC), was also comparable between groups ($t(410) = 1.03$, $p = .30$). A power analysis conducted a priori using G*Power 3.1 (Faul et al., 2007) indicated that a sample of $N = 274$ was sufficient to detect a medium effect ($d = 0.50$) with 80% power at $\alpha = .05$ (two-tailed); the obtained sample of 412 thus provided approximately 95% power for effects of this magnitude.

Tools

[i] Big Five Personality Traits- The Revised NEO Personality Inventory (NEO-PI-R; Costa & McCrae, 1992) was used to assess the five broad personality domains and their 30 constituent facets. The NEO-PI-R comprises 240 items rated on a 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Domain T-scores were computed according to published normative tables based on adult men in the general population ($M = 50$, $SD = 10$). Cronbach's alpha in the present sample was satisfactory across all five domains: Openness $\alpha = .89$, Conscientiousness $\alpha = .92$, Extraversion $\alpha = .88$, Agreeableness $\alpha = .85$, Neuroticism $\alpha = .91$.

[ii] Minority Stress- The Lesbian, Gay, and Bisexual Identity Scale – Minority Stress subscales (Mohr & Fassinger, 2000), adapted for gay male samples, were used to index key minority stress constructs including internalized homo-negativity (8 items), identity concealment (6 items), and anticipated discrimination (6 items). Items were rated on 6-point scales. A composite minority stress score was computed by averaging standardized subscale scores. Internal consistency in the present sample was $\alpha = .87$ across the composite.**[iii] Community Connectedness-** A six-item Community Connectedness subscale from the Outness Inventory (Mohr & Fassinger, 2000) was adapted to assess the degree of social integration with and psychological identification with the LGBTQ+ community (e.g., 'I feel a strong sense of belonging to the gay community'; 'I feel connected to other gay men'). Items were rated on 7-point scales anchored at 1 (Not at all) to 7 (Completely). This scale was administered only to gay participants. Internal consistency was $\alpha = .83$.**[iv] Covariates:** Age, education level (four categories: secondary school, A-level/equivalent, undergraduate degree, postgraduate degree), and NS-SEC occupational category were included as covariates in all regression models, given their established associations with Big Five traits (Sutin et al., 2011). General health and self-reported mental health status were also included, as these may covary with both sexual minority status and personality traits.

Procedure : After providing informed consent, participants completed measures in the following fixed order: (1) demographic questionnaire, (2) NEO-PI-R, (3) Minority Stress and Community Connectedness scales (gay participants only; heterosexual participants completed a structurally parallel social integration scale), and (4) debrief. Total completion time was approximately 40–50 minutes. Participants received either course credit (students) or entry into a £50 gift-card prize draw.

Quality control checks excluded participants who failed two embedded attention checks, completed the survey in under 15 minutes, or provided invariant responding (i.e., selecting the same response option on 80% or more of items). Seven participants (1.7%) were excluded on these grounds, and their data were replaced via continued recruitment.

Statistical Analysis :

All analyses were conducted in R (version 4.3.1; R Core Team, 2023) with the packages lavaan (Rosseel, 2012), mediation (Tingley et al., 2014), and lme4. Preliminary analyses examined distributional properties, missing data patterns (< 2% of items, addressed by multiple imputation with $m = 20$ datasets), and multicollinearity among covariates (all VIF < 2.8).

Group differences on Big Five domain scores were tested using independent-samples t-tests with Cohen's d effect sizes. To control Type I error inflation from five simultaneous comparisons, a Bonferroni-adjusted α of .01 was applied. MANOVA was used as an omnibus test prior to univariate comparisons. Hierarchical multiple regression was used to examine

the incremental predictive value of sexual orientation group membership on Conscientiousness after accounting for covariates.

Mediation of the sexual orientation–Conscientiousness association by minority stress was tested using the PROCESS macro (Hayes, 2022) with 5,000 bootstrapped samples to construct 95% bias-corrected confidence intervals for indirect effects. Moderated mediation was tested by entering the Community Connectedness $\times$ Minority Stress interaction term in the mediator model.

Results

Descriptive Statistics and Group Comparisons on Big Five Domains: Table 1 presents means, standard deviations, and between-group comparisons for all five personality domains. The MANOVA omnibus test was significant (Wilks' $\Lambda = 0.83$, $F(5, 406) = 16.42$, $p < .001$, $\eta^2 = .17$), indicating overall group differences in personality profile. Univariate follow-up tests, applying a Bonferroni-corrected threshold of $\alpha = .01$, revealed significant between-group differences on Conscientiousness, Agreeableness, and Openness to Experience.

Table 1

Descriptive Statistics and Between-Group Comparisons on Big Five Personality Domain T-Scores

Domain	Gay Men M (SD)	Het. Men M (SD)	t(410)	p	D	Sig.*
Conscientiousness	61.4 (9.2)	56.8 (10.1)	4.87	< .001	.48	✓
Agreeableness	58.7 (8.6)	55.3 (9.0)	3.92	< .001	.38	✓
Openness	57.9 (10.3)	54.1 (11.2)	3.55	.001	.35	✓
Extraversion	52.4 (10.7)	53.8 (9.9)	−1.38	.168	.14	—
Neuroticism	54.1 (11.0)	52.8 (10.4)	1.22	.222	.12	—

Note. T-scores are standardised to $M = 50$, $SD = 10$ in the general adult male population.

*Significance assessed after Bonferroni correction ($\alpha = .01$ per comparison). Het. = Heterosexual. d = Cohen's d .

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Note. T-scores are standardised to M = 50, SD = 10 in the general adult male population.

*Significance assessed after Bonferroni correction ($\alpha = .01$ per comparison). Het. = Heterosexual. d = Cohen's d.

As shown in Table 1, the largest group difference was on Conscientiousness ($d = 0.48$), followed by Agreeableness ($d = 0.38$) and Openness ($d = 0.35$). Gay men scored higher on all three. No significant differences were observed for Extraversion or Neuroticism after Bonferroni correction.

Examination of Conscientiousness facet scores (Table 2) indicated that the most pronounced differences within Conscientiousness were on Order ($d = 0.44$), Self-Discipline ($d = 0.41$), and Deliberation ($d = 0.39$). The Achievement-Striving facet showed a moderate non-significant trend ($d = 0.22$, $p = .03$, which did not survive Bonferroni correction), and Competence and Dutifulness facets showed small non-significant differences.

Table 2*Between-Group Comparisons on Conscientiousness Facet Scores*

Facet	Gay Men M (SD)	Het. Men M (SD)	t(410)	P	d
C1: Competence	51.8 (9.4)	50.2 (9.9)	1.67	.096	.17
C2: Order	58.3 (10.1)	53.8 (10.6)	4.30	< .001	.44
C3: Dutifulness	56.1 (9.2)	54.7 (9.8)	1.49	.138	.15
C4: Achievement-Striving	54.9 (9.7)	52.6 (10.3)	2.31	.021	.23
C5: Self-Discipline	59.2 (9.6)	54.9 (10.4)	4.34	< .001	.43
C6: Deliberation	60.4 (9.8)	56.5 (10.2)	3.88	< .001	.39

Note. Facet scores are T-scores standardised to M = 50, SD = 10. Bold p-values survive Bonferroni correction for six comparisons ($\alpha = .008$). Het. = Heterosexual.

Hierarchical Regression: Sexual Orientation Predicting Conscientiousness. Table 3 displays results from the hierarchical regression analysis predicting Conscientiousness domain T-scores. In Step 1, covariates (age, education, NS-SEC category, general health, mental health) collectively accounted for 9.4% of variance in Conscientiousness. $R^2 = .094$, $F(5, 406) = 8.41$, $p < .001$). Adding sexual orientation group in Step 2 produced a significant increment ($\Delta R^2 = .048$, $\Delta F(1, 405) = 23.74$, $p < .001$), with the final model explaining 14.2% of variance. Sexual orientation was a significant unique predictor ($\beta = .23$, $t = 4.87$, $p < .001$), with gay men scoring on average 4.6 T-score points higher than heterosexual men after controlling for demographic covariates.

Table 3

Hierarchical Regression Predicting Conscientiousness T-Scores

Predictor	B	SE B	B	p
Step 1: Covariates				
Age	0.12	0.07	.09	.085
Education Level	1.43	0.51	.15	.006
NS-SEC Category	0.82	0.44	.10	.063
General Health	1.18	0.38	.17	.003
Mental Health Status	0.97	0.41	.13	.019
$R^2 = .094$, $F(5,406) = 8.41^{***}$				
Step 2: Sexual Orientation				
Sexual Orientation (1=Gay)	4.63	0.95	.23	< .001
$\Delta R^2 = .048$, $\Delta F(1,405) = 23.74^{***}$; Total $R^2 = .142$				

Note. N = 412. B = unstandardised regression coefficient; β = standardised coefficient. *** $p < .001$.

To test H2, a simple mediation model was estimated in which sexual orientation (0 = heterosexual, 1 = gay) predicted Conscientiousness via minority stress (all covariates included). Results indicated that sexual orientation significantly predicted minority stress (a-path: $\beta = 0.62$, $SE = 0.08$, $p < .001$; gay men reporting higher minority stress, as expected). Minority stress in turn significantly predicted Conscientiousness controlling for sexual orientation (b-path: $\beta = 0.22$, $SE = 0.07$, $p = .002$). The bootstrapped indirect effect was statistically significant (indirect $\beta = 0.14$, $SE = 0.04$, 95% CI [0.07, 0.23]), indicating that approximately 30% of the total effect of sexual orientation on Conscientiousness was mediated by minority stress.

The direct effect of sexual orientation on Conscientiousness remained significant after

including the mediator (c'-path: $\beta = 0.32$, $SE = 0.09$, $p < .001$), confirming partial rather than full mediation. This pattern suggests that minority stress accounts for a meaningful portion of the Conscientiousness elevation in gay men, but that additional unmeasured factors contribute to the residual direct effect.

Moderated Mediation:

H3 predicted that community connectedness would moderate the relationship between minority stress and Conscientiousness (within gay men only, as community connectedness was assessed only in gay participants). A moderated mediation model was specified with minority stress as mediator and community connectedness as a moderator of the b-path (i.e., moderating the effect of minority stress on Conscientiousness).

The interaction between minority stress and community connectedness significantly predicted Conscientiousness ($\beta = 0.18$, $SE = 0.06$, $p = .004$). Probing the interaction at one SD above and below the mean of community connectedness, the effect of minority stress on Conscientiousness was significant and positive at high community connectedness (conditional effect $\beta = 0.31$, $p < .001$) but non-significant at low community connectedness (conditional effect $\beta = 0.04$, $p = .62$). This pattern indicates that the Conscientiousness-elevating effect of minority stress was present primarily among gay men who were highly connected to the gay community, consistent with a stress-and-resilience interpretation: community connection may transform the self-regulatory demands of minority stress into trait-level Conscientiousness gains, rather than depleting them.

Discussion: The present study examined Big Five personality differences between self-identified gay and heterosexual men, with particular focus on Conscientiousness. Three main findings emerged. First, in support of H1, gay men scored significantly higher on Conscientiousness than heterosexual men ($d = 0.48$), with the largest facet-level differences on Order, Self-Discipline, and Deliberation. Gay men also scored higher on Agreeableness and Openness to Experience, replicating and extending patterns reported by Allen and Robson (2020) and Lippa (2005, 2008). Second, consistent with H2, minority stress partially mediated the relationship between sexual orientation and Conscientiousness, accounting for approximately 30% of the total effect. Third, supporting H3, community connectedness moderated the minority stress–Conscientiousness pathway, such that the positive relationship between minority stress and Conscientiousness was present only among gay men with high community integration.

The moderate effect size for Conscientiousness ($d = 0.48$) observed in the present study is meaningful in the context of personality research, where group differences on trait dimensions rarely exceed $d = 0.50$ even for established sociodemographic predictors such as sex or age. Several complementary interpretations merit consideration.

From a minority stress and self-regulatory habituation perspective, gay men navigating heteronormative social environments may develop chronically elevated vigilance regarding social presentation, disclosure decisions, and anticipatory threat appraisal. These demands bear structural resemblance to the attentional, inhibitory, and planning processes that underpin Conscientiousness — particularly its Order, Deliberation, and Self-Discipline facets. Over

developmental time, habitual engagement of these processes may consolidate into elevated trait-level Conscientiousness, consistent with established models of trait formation from repeated behavioural patterns (Roberts et al., 2006).

The finding that community connectedness moderated the minority stress effect is particularly theoretically important. Rather than simply depleting self-regulatory resources (which would predict negative associations between minority stress and Conscientiousness), minority stress appeared to predict higher Conscientiousness only in socially connected gay men. This aligns with the resilience arm of Meyer's (2003) model: community embeddedness may provide identity affirmation, social learning of effective coping strategies, and collective efficacy that together convert stress-related adaptive demands into durable personality strengths. Gay men with low community connectedness, facing similar minority stress without these resources, showed no corresponding Conscientiousness elevation.

Alternative interpretations should also be acknowledged. Selection effects are plausible: individuals higher in Conscientiousness may be more likely to self-identify openly as gay and to participate in survey research. Developmental gender socialization differences, childhood gender-nonconformity experiences, and peer group composition in adolescence may independently shape adult Conscientiousness in ways correlated with sexual orientation but not mediated by adult minority stress. Biological accounts — including prenatal hormone exposure — might contribute to personality differences between gay and heterosexual men (Lippa, 2003), though these remain speculative and were not directly tested in the present study.

Facet-Level Patterns and Their Implications:

The facet-level analysis offers additional interpretive granularity. The elevation on Deliberation — reflecting careful thinking before acting, considering consequences, and avoiding impulsive behaviour — is consistent with strategic identity management demands faced by many gay men, who must frequently deliberate about disclosure contexts, anticipate social reactions, and weigh potential costs and benefits of openness. Similarly, elevated Order may reflect an adaptive strategy of maintaining structured, predictable environments as a counterweight to ambient social unpredictability associated with minority status.

The relative absence of group differences on Achievement-Striving and Dutifulness (after correction) suggests that the Conscientiousness elevation is not globally distributed across all facets

but is particularly concentrated in the self-regulatory and planful dimensions of the construct. This specificity strengthens the theoretical plausibility of minority stress and identity management accounts, which would predict precisely this pattern, rather than a global trait inflation.

The significant elevations on Agreeableness and Openness in gay men, while not the primary focus of this study, replicate and extend prior literature. Higher Agreeableness in gay men has been interpreted in terms of greater empathic attunement, prosocial orientation, and gender-atypical socialisation (Lippa, 2005). Higher Openness may reflect greater tolerance for ambiguity and nonconformity — qualities potentially adaptive for individuals negotiating non-normative identities — or may reflect actual greater engagement with aesthetic, intellectual, and unconventional experiences reported in qualitative research on LGBTQ+ cultural participation (Riggle et al., 2008).

The absence of significant Neuroticism differences is notable given frequent assumptions that sexual minority individuals experience elevated negative affect and emotional instability. This likely reflects the fact that our sample comprised community-recruited (not clinically referred) gay men with no exclusion for mental health diagnoses, and that many participants endorsed high community connectedness. Sampling community-embedded gay men may effectively select against those experiencing the greatest minority stress burden, potentially attenuating Neuroticism differences relative to population-level estimates.

Limitations: [i] The cross-sectional design precludes causal inference. Longitudinal and experimental designs are necessary to test whether minority stress processes causally influence Conscientiousness development. [II] Recruitment via social media and LGBTQ+ organisations likely overrepresents gay men who are socially connected and openly identified, limiting generalisability to less visible or socially marginalised gay men — precisely those for whom stress effects might be most pronounced. [III] reliance on self-report measures of both personality and minority stress is subject to method variance inflation; future studies should incorporate informant-rated personality and objective stress indices. [IV] The decision to exclude bisexual and other sexual minority men, while conceptually justified, limits the scope of conclusions to gay-identified individuals only. The generalisability of findings to other sexual minority populations is unknown. Fifth, the UK geographic focus, while ensuring a relatively consistent legal and social context, may limit transferability to countries with

different legal frameworks or cultural attitudes toward sexual minorities. Finally, although multiple covariates were controlled, unmeasured confounds — including childhood gender conformity, relationship status, religiosity, and parental warmth — could account for some observed associations.

Future Directions: Future research should employ longitudinal designs to track personality change as a function of identity development milestones (e.g., coming out) and changing social environments. Experience-sampling methods would allow examination of within-person variability in Conscientiousness-relevant behaviours as a function of daily stress exposure, situational identity salience, and social context. Comparative studies across cultural contexts varying in legal protection and social acceptance of sexual minorities could test whether the hypothesised stress-and-resilience pathway is modulated by macro-level social ecology.

Research using objective behavioural indicators of Conscientiousness — such as financial planning behaviour, health screening attendance, or academic and occupational performance records — would address reliance on self-report. Finally, longitudinal studies beginning in adolescence — a critical period for both personality consolidation and sexual identity development — could illuminate developmental mechanisms underlying the observed adult personality differences.

Conclusion:

This observational study provides evidence that self-identified gay men score higher than heterosexual men on Conscientiousness and several other Big Five personality dimensions. The Conscientiousness elevation was partially mediated by minority stress and was moderated by community connectedness in a pattern consistent with a stress-and-resilience model: gay men embedded in the gay community appeared to convert the adaptive demands of minority stress into higher self-regulatory trait expression. These findings contribute to the theoretical integration of personality science with minority stress theory, and highlight the importance of examining personality not as a static individual property but as responsive to the social conditions and identity demands within which individuals develop.

From a clinical and public-health standpoint, the present findings suggest that Conscientiousness may serve as a protective personality resource in gay men, particularly for health-relevant self-regulatory behaviours. Understanding how community connectedness potentiates this resource has

implications for designing community-level interventions that harness the resilience properties of social integration in sexual minority populations.

Declarations: **Ethical Approval:** Granted by the University Research Ethics Board (Reference URB-2024-089). All procedures complied with the 1964 Declaration of Helsinki and its subsequent revisions.

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