

Psychological and sociodemographic predictors of sexual dysfunction and sexual quality of life in MSM

Sofia Pavanello Decaro, PhD^{1,*} , Rodolfo Pessina, MD², Rossana Carenzi, MD², Antonio Prunas, PHD¹

¹Department of Psychology, University of Milan-Bicocca, 20126 Milan, Italy

²Independent Researcher, Milan, Italy

*Corresponding author: Department of Psychology, University of Milan-Bicocca, 20126 Milan, Italy. Email: sofia.pavanellodecaro@unimib.it

Keywords men who have sex with men, sexual dysfunction, social determinants of health, sexual and gender minorities, sexual quality of life

Sexual dysfunction (SD) is a prevalent yet underresearched domain of sexual health among men who have sex with men (MSM). While SD focuses on clinical aspects of sexual functioning, sexual quality of life (SQoL), the subjective experience of one's sexual life which has been linked to relational and psychological domains, remains even less examined among MSM populations.¹ Minority stress is one key factor contributing to sexual health in this population. It is a persistent and socially derived phenomenon rooted in the stigma and prejudice faced by minority groups, including MSM.² Intraminority stress is a specific form of chronic stress arising within minority groups due to perceived competition for resources in social and sexual relations.³ This is among the first studies in Italy to examine both SD and SQoL in a large MSM sample. This study forms part of a larger data collection project⁴ and focuses on analyzing the sociodemographic and psychological predictors of SD and SQoL among MSM in Italy.

The study adopted an observational and cross-sectional design and was classified as "minimum risk" by the Ethical Committee of the University [masked for review] (approval February 2023). Data were collected via a Qualtrics platform survey comprising multiple-choice questions, Likert scale items, and open-ended responses. The survey covered demographic information, sexual identity, and aspects of physical, mental, and sexual health, using validated measures of depression, anxiety, SD, and SQoL (see Table S1). The study targeted cisgender MSM aged 18 and over. Of the initial sample of 1045 individuals, only those who completed the entire questionnaire and were non-chemsex users ($N=688$) were included in the current analysis. Chemsex users were excluded to reduce bias from substance-driven sexual behavior, as their sexual functioning profile may differ systematically from the broader MSM population. The final sample had a mean age of 34.7 years ($SD=9.28$ years, range 18-69). Detailed socio-demographic and sexual identity characteristics of the sample are outlined in Table S2.

The data were analyzed using IBM SPSS Statistics 29. Descriptive statistics (mean, standard deviation, and range) were calculated

for sociodemographic variables and scale scores. Higher SD scores, computed by summing all GMSDS subscale scores (items rated "not applicable" scored as 0) ($M=71.62$, $SD=5.09$, range 60-91, see Table S3 for subscale scores) indicate greater SD and higher SQoL scores ($M=26.39$, $SD=12.19$, range 11-65) indicate poorer quality of sexual life. Two hierarchical multiple regression analyses were conducted to assess the association between sociodemographic variables (age, employment status, sexual orientation, and relationship status) and psychological variables (depression, anxiety, and intraminority stress). Model 1 focused on SD, while model 2 focused on SQoL. For both models, the following sociodemographic variables were entered in the first block: age, employment status (0=not working, 1=working), sexual orientation (0=bisexual, 1=gay), and relationship status (0=not in a relationship, 1=in a relationship) to evaluate their independent effects on SD and SQoL scores. Psychological variables, namely depression (PHQ-9), anxiety (GAD-7), and intraminority stress (GCSS) were added in the second block to assess their incremental contribution. Linear regression assumptions were verified prior to analysis.

In the hierarchical regression model conducted on SD, the sociodemographic variables included in the first block explained only 2.8% of the variance and the model was not significant ($R^2=0.028$, $P=.186$). Only age was significant ($b=-0.087$, $P=.036$), indicating that older age was associated with lower GMSDS scores, reflecting less frequent sexual difficulties. The inclusion of psychological variables in the second block significantly improved the model, increasing the explained variance to 13.5% ($\Delta R^2=0.108$, $P<.001$). Depression ($b=0.264$, $P=.004$) and intraminority stress ($b=0.036$, $P=.012$) emerged as significant predictors of SD. Additionally, employment status became a significant predictor ($b=2.037$, $P=.031$), suggesting that employment is linked to higher dysfunction once psychological predictors are controlled. The effect of age, although significant in the first block, did not hold when psychological variables were included ($P=.086$), indicating that the relationship between age

and SD may be related to psychological factors. Anxiety, sexual orientation, and relationship status were not significant in either block.

In the hierarchical regression model conducted on SQoL, the sociodemographic variables included in the first block explained 5.9% of the variance and the model was significant ($R^2 = 0.059$, $P < .001$). Relationship status was the only significant predictor ($b = -5.160$, $P < .001$), with partnered individuals reporting better SQoL. The inclusion of psychological variables in the second block substantially increased the explained variance to 27.6% ($\Delta R^2 = 0.217$, $P < .001$). Depression ($b = 0.347$, $P = .010$), anxiety ($b = 0.419$, $P = .004$), and intraminority stress ($b = 0.097$, $P < .001$) were significant predictors of SQoL, with higher scores on these predictors associated with poorer SQoL. Conversely, higher perceived status within the MSM community was associated with better SQoL ($b = -1.120$, $P < .001$). Relationship status remained a significant predictor after the inclusion of psychological variables ($b = -3.194$, $P = .002$), while age and sexual orientation were not significant in either block.

Overall, sociodemographic variables had limited explanatory power. For SD, age was the only significant predictor, though the overall model failed to reach significance. In contrast, relationship status was the sole significant sociodemographic predictor of SQoL, with individuals in relationships reporting better SQoL. This suggests that relational context holds greater relevance for subjective sexual well-being. Indeed, relationship status remained a significant predictor of SQoL even after accounting for psychological variables.

The inclusion of psychological variables substantially improved both models, underscoring their critical role in sexual health. Depression and intraminority stress were consistently associated with both greater SD and poorer SQoL, confirming their central importance in different dimensions of sexual health. Employment status became significant only when psychological variables were included. This pattern is consistent with the hypothesis that work-related stressors (eg, job demands, discrimination, or work-life imbalance) may play a role in this association, though this explanation remains speculative and warrants investigation in future research. Meanwhile, higher social status within the MSM community was associated with better SQoL but had no significant impact on SD, indicating that its benefits may be more relevant for subjective rather than clinical measures. Limitations include GMSDS scores potentially conflating role nonapplicability with absence of dysfunction, the social status measure showing poor internal consistency ($\alpha = 0.26$). Furthermore, binary cod-

ing of relationship status may obscure differences between relational configurations. Finally, the cross-sectional design precludes causal inference and the exclusion of chemsex users (to reduce bias from substance-driven sexual behavior) limits generalizability.

These findings highlight the complex interplay between sociodemographic and psychological factors in sexual health. While psychological distress is associated with poorer sexual function and SQoL, the influence of sociodemographic variables varies depending on sexual health outcome. These results emphasize the need for multidimensional assessments addressing both clinical and subjective aspects of sexual health. They also support routine screening for depression, anxiety, and intraminority stress in MSM sexual health care, with relational and employment-related stressors representing potential targets for future intervention research.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Conflicts of interest

The authors have no conflict of interest to disclose.

References

1. Etemadi F, Bessonneau P, Yaya I, et al. Factors associated with sexual quality of life among men living with hiv. *Int J STD AIDS*. 2023;35(5):352–364. <https://doi.org/10.1177/09564624231217324>
2. Meyer IH. Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. *Psychol Bull*. 2003;129(5):674–697. <https://doi.org/10.1037/0033-2909.129.5.674>
3. Pachankis JE, Clark KA, Burton CL, Hughto JMW, Bränström R, Keene DE. Sex, status, competition, and exclusion: intraminority stress from within the gay community and gay and bisexual men's mental health. *J Pers Soc Psychol*. 2020;119(3):713–740. <https://doi.org/10.1037/pspp0000282>
4. Pessina R, Pavanello Decaro S, Torri C, Prunas A. Chemsex and psychosexual health in a large Italian sample of men who have sex with men (MSM). *Sexuality & Culture*. 2025;29(4):1637–1668. <https://doi.org/10.1093/jsxmed/qdag077.174>