

INTISARI

Latar Belakang: Perilaku kekerasan seksual dipengaruhi oleh interaksi kompleks antara faktor psikososial dan biologis. Salah satu komponen biologis yang diduga berperan adalah sistem serotonergik, khususnya variasi genetik pada gen *HTR2A* yang mengode reseptor 5HT_{2A} yang berfungsi dalam regulasi emosi dan kontrol impuls.

Tujuan: Mengetahui bentuk polimorfisme gen *HTR2A* rs6311 dan menganalisis hubungannya dengan perilaku kekerasan seksual pada narapidana di Yogyakarta.

Metode: Penelitian observasional analitik dengan rancangan *cross-sectional* menggunakan data sekunder narapidana di Lapas Wirogunan dan Lapas Cebongan tahun 2021. Data genotipe polimorfisme gen *HTR2A* rs6311 dianalisis menggunakan uji *Chi-Square/Fisher's Exact* dan regresi logistik multivariat dengan penyesuaian terhadap riwayat penggunaan NAPZA dan riwayat kekerasan masa kecil.

Hasil: Sebanyak 147 narapidana memenuhi kriteria penelitian, terdiri atas 21 (14%) pelaku kekerasan seksual dan 126 (86%) pelaku tindak pidana non-seksual. Distribusi genotip polimorfisme gen *HTR2A* rs6311 adalah AA 82 (55,8%), AG 52 (35,4%), dan GG 13 (8,8%). Tidak ditemukan hubungan yang bermakna antara polimorfisme gen *HTR2A* rs6311 dengan perilaku kekerasan seksual, baik pada analisis bivariat, regresi logistik multivariat setelah penyesuaian terhadap riwayat penggunaan NAPZA dan riwayat kekerasan masa kecil, maupun pada analisis berdasarkan pengelompokan genotipe (seluruh $p > 0,05$).

Kesimpulan: Pada sampel dan desain penelitian ini, tidak ditemukan hubungan antara polimorfisme gen *HTR2A* rs6311 dengan perilaku kekerasan seksual, baik pada analisis bivariat, regresi logistik multivariat setelah penyesuaian terhadap riwayat penggunaan NAPZA dan riwayat kekerasan masa kecil, maupun pada analisis berdasarkan berbagai pengelompokan genetik.

Kata Kunci: Kekerasan seksual, Narapidana, Polimorfisme, Gen *HTR2A* rs6311, Serotonin

ABSTRACT

Background: Sexual offending behavior is influenced by complex interactions between psychosocial and biological factors. One suspected biological component is the serotonergic system, specifically genetic variations in the *HTR2A* gene encoding the 5HT_{2A} receptor, which regulates emotions and impulse control.

Objective: To identify the polymorphism forms of the *HTR2A* rs6311 gene and analyze its association with sexual offending behavior among inmates in Yogyakarta.

Methods: An analytical observational study with a cross-sectional design was conducted using secondary data from Wirogunan and Cebongan prisons collected in 2021. *HTR2A* rs6311 genotype data were analyzed using the Chi-square/Fisher's exact test for bivariate analysis and multivariable logistic regression with adjustment for history of substance use and childhood violence.

Results: A total of 147 prisoners met the study eligibility criteria, including 21 (14%) convicted of sexually violent offenses and 126 (86%) convicted of non-sexual offenses. The genotype distribution of the *HTR2A* rs6311 polymorphism was AA in 82 (55.8%), AG in 52 (35.4%), and GG in 13 (8.8%) participants. No significant association was found between the *HTR2A* rs6311 polymorphism and sexually violent behavior in the bivariate analysis, multivariable logistic regression adjusted for substance use history and childhood violence, or analyses based on different genotype grouping models (all $p > 0.05$)

Conclusions: In this study population, the AA genotype was the predominant *HTR2A* rs6311 genotype among prisoners in Yogyakarta. No statistically significant association was found between the *HTR2A* rs6311 polymorphism and sexually violent behavior. This finding was consistent across the bivariate analysis, multivariable logistic regression adjusted for substance use history and adverse childhood experience, and analyses using different genotype grouping models.

Keywords: Sexual offending, Inmates, Polymorphism, *HTR2A* rs6311 gene, Serotonin.