

0830 **SURVIVAL AND EARLY FUNCTIONAL OUTCOMES AT HOSPITAL DISCHARGE AFTER SEVERE ADULT TRAUMATIC BRAIN INJURY: SEX AND RACE DISPARITIES**

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Introduction Recent studies have suggested gender and racial disparities in outcomes after traumatic brain injury (TBI). We aimed to quantify the effect of sex and race on in-hospital survival and early functional outcomes at hospital discharge in severe adult TBI patients (SATBI) admitted to Pennsylvania trauma centres during 1998–2007.

Methods Trauma registry data was analyzed using 26 234 SATBI (Age>17 years and Head-neck Abbreviated Injury Scale \geq 4). Survival was fitted into logistic regressions. Functional outcome scores of five domains: feeding, locomotion, expression, transfer mobility and social interaction, were fitted into multinomial regressions through proportional odds. Models were adjusted for age, co-morbidities, injury mechanisms, transport, vital signs at admission, injury severity scores, hospital stay, and trauma centre level.

Results The odds of survival in males was 0.72 times the odds in females (OR 0.72, 95% CI 0.65 to 0.78). In survivors, males had higher probabilities of better functional outcomes in all domains (Feeding, OR 1.09, 95% CI 1.01 to 1.18; Locomotion, OR 1.25, 95% CI 1.16 to 1.34; Expression, OR 1.10, 95% CI 1.02 to 1.20; Transfer mobility, OR 1.24, 95% CI 1.16 to 1.33 and Social interaction, OR 1.09, 95% CI 1.01 to 1.18). The odds of survival among African Americans was 0.81 times the odds in Whites (OR 0.81, 95% CI 0.70 to 0.94). In survivors, African Americans had statistically significant lower probabilities of better functional outcomes in all domains.

Conclusion Sex and race disparities independently predict survival and functional outcomes after SATBI. African Americans have worse outcomes when compared with equivalently whites. Although survival is lower in males than in females, they have better functional scores at discharge than females.

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