

## Trajectories of PTSD from 2-3 Years to 5-6 Years among Asian Americans after the World Trade Center Attack

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**Abstract :** Considerable Asian Americans were exposed to the World Trade Center attack due to the proximity of the site to Chinatown and a sizeable number of South Asians working in the collapsed and damaged buildings nearby. Few studies focused on Asians in examining the disaster's mental health impact, and even less longitudinal studies were reported beyond the first couple of years after the event. Based on the World Trade Center Health Registry, this study examined the trajectory of PTSD of individuals directly exposed to the attack from 2-3 to 5-6 years after the attack, comparing Asians against the non-Hispanic White group. Participants included 2,431 Asians and 31,455 Whites. Trajectories were delineated into the resilient, chronic, delayed-onset and remitted groups using PTSD checklist cut-off score at 44 at the 2 waves. Logistic regression analyses were conducted to compare the poorer trajectories against the resilient as a reference group, using predictors of baseline sociodemographic, exposure to the disaster, lower respiratory symptoms and previous depression/anxiety disorder diagnosis, and recruitment source as the control variable. Asians had significant lower socioeconomic status in terms of income, education and employment status compared to Whites. Over 3/4 of participants from both races were resilient, though slightly less for Asians than Whites (76.5% vs 79.8%). Asians had a higher proportion with chronic PTSD (8.6% vs 7.4%) and remission (5.9% vs 3.4%) than Whites. A considerable proportion of participants had delayed-onset in both races (9.1% Asians vs 9.4% Whites). The distribution of trajectories differed significantly by race ( $p < 0.0001$ ) with Asians faring poorer. For Asians, in the chronic vs resilient group, significant protective factors included age  $> 65$ , annual household income  $> \$50,000$ , and never married vs married/cohabiting; risk factors were direct disaster exposure, job loss due to 9/11, lost someone, and tangible loss; lower respiratory symptoms and previous mental disorder diagnoses. Similar protective and risk factors were noted for the delayed-onset group, except education being protective; and being an immigrant a risk. Between the 2 comparisons, the chronic group was more vulnerable than the delayed-onset as expected. It should also be noted that in both comparisons, Asians' current employment status had no significant impact on their PTSD trajectory. Comparing between Asians against Whites, the direction of the relationships between the predictors and the PTSD trajectories were mostly the same, although more factors were significant for Whites than for Asians. A few factors showed significant racial difference: Higher risk for lower respiratory symptoms for Whites than Asians, higher risk for pre-9/11 mental disorder diagnosis for Asians than Whites, and immigrant a risk factor for the remitted vs resilient groups for Whites but not for Asians. Over 17% Asians still suffered from PTSD 5-6 years after the WTC attack signified its persistent impact which incurred substantial human, social and economic costs. The more disadvantaged socioeconomic status of Asians rendered them more vulnerable in their mental health trajectories relative to Whites. Together with their well-documented low tendency to seek mental health help, outreach effort to this population is needed to ensure follow-up treatment and prevention.

**Keywords :** PTSD, Asian Americans, World Trade Center Attack, racial differences

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