Editorial

A New Blueprint for Addressing Tobacco Use Disparities to Reduce Health Disparities: The Sociopharmacology Theory of Tobacco Addiction

The prevalence of smoking among adults in developed countries has continued to decline through comprehensive tobacco control efforts. In the U.S., for example, the prevalence among adults is approaching a historic low: the prevalence in 2014 was 16.8%, which was a steady decline from 20.6% in 2009. Preliminary data from the first half of 2015 suggest that the U.S. rate could fall below 15%. A potential downside to this welcome news, especially if confirmed in the second half of 2015, is that it may inadvertently communicate to the public, as well as the healthcare system, that cigarette smoking is no longer a major public health problem. The reality, however, is that major disparities in smoking continue to persist in the U.S. and worldwide, and these disparities maintain the disproportionate burden in tobacco-related disease that is experienced by these groups. Increased attention and reallocation of tobacco control resources will be not be enough: new theory and research methodology are needed.

The review by Adam Leventhal in this issue of Nicotine & Tobacco Research describes a new theory, “sociopharmacology”, that has the exciting potential to advance our understanding of tobacco use among disparity populations and lead to effective targeted multilevel interventions. The sociopharmacology framework synthesizes social epidemiology and psychopharmacology to address tobacco use disparities, across multiple levels of analysis, through the application of new theoretical constructs and innovative methodology. Sociopharmacology extends the general biopsychosocial model of chronic disease and wellness, widely used since the 1980s, in two critical ways. First, the sociopharmacology framework offers specific predictions regarding bidirectional pathways and psychopharmacological mechanisms by which biological, psychological, and social contexts, in interaction with disparity group membership, promote susceptibility to tobacco use and dependence among individuals and, in turn, illness and disease. Second, the sociopharmacology framework specifies the types of transdisciplinary research design and methodologies, a synthesis of social epidemiology and psychopharmacology methodology, best suited for testing model predictions. Other methodological options not mentioned by Leventhal, but reasonable within his framework, include embedding quasi-experimental psychopharmacological studies within prospective population-based cohort studies, such as the Coronary Artery Risk Development in Adults (CARDIA) study, that richly characterize social, cultural, and environmental determinants of health and disease across long periods of time. To illustrate the framework’s potential for explaining tobacco-related health disparities, Leventhal describes two example models: “socially determined stress and tobacco’s pharmacological effects on threat processing” and “dearth of opportunity for reward in disadvantaged populations and tobacco’s reward enhancing effects.” Both of these models are compelling, supported by data, and ripe for further research. Many other intriguing questions relevant to tobacco-related health disparities can be addressed within the sociopharmacology framework. For instance, why are menthol cigarettes, which have greater adverse health effects than regular cigarettes, so much more popular among African American smokers than white smokers?

The elimination of tobacco use disparities will be critical to achieving significant reductions in health disparities. Comprehensive tobacco control efforts need to make disparity populations a priority. Leventhal’s sociopharmacology of tobacco use and dependence establishes an impressive transdisciplinary framework of compelling new theoretical constructs and a solid methodological blueprint. It should stimulate new exciting research on tobacco-related health disparities.

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References