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Big Events and Risks to Global Substance Using Populations: Unique Threats and Common Challenges

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Abstract

In this commentary we review a set of “Big Events” from around the world that have adversely impacted substance using populations by first identifying common thematic areas between them and then describing the unique challenges faced by the diverse and vulnerable populations impacted. The Big Events reviewed are multifaceted and complex in nature, and include the recent global financial crisis, economic and trade sanctions, political transition and its impact on ethnic minorities, colonialism and indigenous communities, and ecological disasters. All have led to immense trauma, displacement, and disruption to critical healthcare services/treatment for people who use drugs, populations who are left underserved in the midst of these crises. It is our hope that through this comparative assessment, global policymakers will proactively identify Big Events and prioritize the development of interventions and policy that meet the unique and immediate needs of substance using population in order to mitigate the significant negative short and long-term impacts to global public health.

Keywords

big events; substance use and abuse; harm reduction; globalization; financial crisis; ecological disasters; health policy; HIV/AIDS; PWIDs

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Authors' contributions

We note that with respect to author contributions, Tim K. Mackey (TM) and Steffanie Strathdee (SS), jointly conceived the study and wrote and edited the manuscript. No other individual or organizations contributed otherwise to the drafting of the manuscript.

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Competing interests

None declared

INTRODUCTION

In this special issue on “Big Events, Substance Use and Interventions: A Global Perspective” in the journal *Substance Use and Misuse*, researchers from around the globe present a set of unique economic, social, political, ecological and historical disruptions, otherwise known as “Big Events” (or sometimes referred to as “complex emergencies”) and the challenges posed by them for a diverse group of substance using populations. The pieces also examine the impact of these events on drug treatment interventions aimed at improving global public health and why more attention is needed to ensure patient access to substance abuse treatment in order to prevent the spread of infectious disease (e.g. HIV and Hepatitis C Virus).

The experiences reported in these studies, which focus on Greece, Hong Kong, Hungary, Iran, the USA, and indigenous populations of North America, highlight the complex and interdependent nature of the *globalization* of health, where the spread of diseases, health behavior-related risk factors, access to healthcare services/treatment, and various social determinants of health are no longer restricted within geopolitical boundaries (Mackey & Liang, 2012; McMichael, 2013; Woodward, Drager, Beaglehole, & Lipson, n.d.). Instead, major global health challenges, such as the HIV epidemic, have taught us that socio-economic and political transitions can lead to the convergence of risk environments that exacerbate infectious disease spread and drug use, especially in the context of Big Events that can result in local, regional, and even international instability (Friedman, Rossi, & Braine, 2009; Friedman, Rossi, & Flom, 2006).

Hence, this commentary examines both the unique challenges emanating from Big Events that are specific to people who use drugs and also attempts to identify common thematic areas that can inform future interventions, health policy development, and patient advocacy efforts aimed at mitigating the negative health impacts of these disruptions. We attempt to accomplish this by describing the key findings of each of the articles in this special issue, grouping them into thematic areas, and also exploring what other Big Events might warrant further study. We then conclude with a short discussion of the importance of global policymaking to first identify Big Events and then specifically prioritizing responses with specific attention to the unique challenges faced by global substance using populations.

UNIQUE CHALLENGES COMMON THEMES

Though varied in their coverage of “Big Events”, the six studies presented in this special issue reveal some common thematic challenges faced by substance using populations over a period starting as early as 18th century colonialism up to more recent natural disasters such as Hurricane Sandy in 2012. The studies employ a variety of approaches comprised of quantitative studies analyzing pilot, national and sub-national data on drug use, qualitative studies examining certain populations of people who use drugs, literature reviews, and ethnographic research as discussed below.

Public Health Impact of Economic Austerity and the Global Fiscal Crisis

The most predominant Big Event addressed in this special issue is the attempt to measure the impact of the recent global fiscal crisis on substance using populations. Two studies from Greece and Hungary examine how the global financial crisis, national austerity measures, and declining domestic public health expenditures have changed the socio-economic environment for the worst among people who inject drugs (PWIDs).

Tarjan and colleagues describe the impact of the global economic crisis on Hungary as having a dual negative effect on PWIDs at the micro-level (by reducing their earnings and employment while also increasing the cost of living and rates of homelessness) and the macro-level due to cost cutting policies to public health systems that have diminished access to harm reduction programs (such as opioid substitution treatment and syringe exchange programs (SEP)). These changes can also lead to shifts in the drug market and drug use behaviors, including increasing use of new psychoactive substances (NPS), which carry their own unique infectious disease transmission risks (Péterfi, Tarján, Horváth, Csesztregi, & Nyírády, n.d.).

Tarjan et al., conducted an analysis of select 2011–2012 national and subnational data to assess changes in injection patterns, associated risk factors, and access to infectious disease prevention programs for PWIDs post-fiscal crisis. Results of the study indicate that while heroin injection is declining, injection of stimulants (including cheaper, non-controlled NPS) has recently increased, along with higher prevalence of unsafe injection practices. This situation is reminiscent of the changes in drug trafficking and use that occurred after the fall of the Iron Curtain in the former Soviet Union (Friedman et al., 2009, Strathdee et al., 2006), indicating that when economic Big Events occur, the drug market can subsequently undergo changes leading to shifts in PWID injection-related risk behaviors, against the backdrop of decreased access to state-funded public health programs such as SEP (Friedman et al., 2013).

Another country severely impacted by the global economic recession was Greece, which was on the verge of defaulting on its international debt obligations and at risk of a possible exit from the Eurozone. Bailout packages from the “Troika” (i.e. European Commission, European Central Bank and International Monetary Fund) were accompanied by harsh austerity measures that resulted in equally volatile social and political conflict (Simou & Koutsogeorgou, 2014). The health sector was not spared from severe cuts in public spending, resulting in poorer health outcomes in maternal and child health, increased prevalence of certain infectious diseases, and an increase in suicides (Antonakakis & Collins, 2014; Michas, Varytimiadi, Chasiotis, & Micha, 2014; Simou & Koutsogeorgou, 2014; Vlachadis, Vrachnis, Ktenas, Vlachadi, & Kornarou, 2014). Perhaps not coincidentally, Greece experienced an enormous outbreak of new HIV cases among PWIDs beginning in 2011 that the country continues to grapple with. Hence, Nikolopoulos and colleagues attempt to assess whether the Big Event of Greece’s economic crisis directly contributed to this spread of HIV in PWIDs (Paraskevis et al., 2013).

Nikolopoulos et al. hypothesize that PWIDs, as a vulnerable population group, experienced significant economic hardship due to the Greek economic crisis including loss of income,

homelessness, and also a mixing and increase in the size of risk networks among clusters of PWIDs. All of these factors may have contributed to unsafe injection practices and higher transmission rates of HIV that may also be impacted by changes in sexual networks between PWID and non-drug using or non-injection drug user populations.

Importantly, both studies highlight that PWIDs represent particularly vulnerable populations when economic crises occur and are often disproportionately impacted compared to other individuals, which can then lead to greater drug use and infectious disease-related risk behaviors. Additionally, economic Big Events can lead to both short-term (higher risk among populations already at risk) and long-term consequences (growth of subpopulations at risk that can lead to sustained transmission/epidemics) compared to other events whose effect may be more time limited.

As global markets continue to recover from the global fiscal crisis, further examination of the impact of national austerity measures and cuts to domestic public health systems needs to be pursued. Specifically, other countries significantly impacted by the global recession that also experienced political instability, such as Iceland, Italy, Latvia, Spain, and others, should also be assessed for changes in HIV prevalence among at-risk populations such as PWIDs. This should also include an examination of the current financial and political crisis in the Ukraine, where conflict with Russia and economic sanctions threaten to destabilize the entire region.

Trade, Economic Sanctions, and Access to Medicines

The impact of international trade on public health has emerged a predominant issue among those concerned with global tobacco control, access to medicines, food security, healthcare worker migration, and others issues (Gleeson & Friel, 2013; Mackey, Liang, & Novotny, 2013; Shaffer & Brenner, 2004; Smith, Correa, & Oh, 2009; Yagi, Mackey, Liang, & Gerlt, 2013). Within the context of growing recognition of the importance of trade policy on population-based health outcomes, Esmizade & Deilamizade present a pilot study examining how economic sanctions enacted against Iran can lead to an increase in drug use-related harms. Specifically, the study assesses the interplay of a series of historical “Big Events” including Iran’s political history and geography that has established it as both a destination and transit country for illicit drug trafficking. The paper ends with a discussion of how heightened U.S. economic sanctions in 2010–2011 have hampered harm reduction efforts.

The economics, trade, and scientific sanctions regime is largely driven by the U.S. Treasury Office of Foreign Assets Control and has crippled the Iranian economy while also negatively impacting access to essential medicines and national funding of harm reduction programs (Cheraghali, 2013). Since 1997, the Iranian government has attempted to expand access to addiction treatment and harm reduction services. However, economic sanctions have hampered these efforts by reducing the available supply of methadone and buprenorphine and other essential medicines (Shariatirad & Maarefvand, 2013). Another consequence of these sanctions has been significant changes in the accessibility and cost of illicit drugs, leading to changes in patterns of consumption and injection drug use behavior.

Esmizade & Deilamizade assess the potential consequences of these changes by utilizing interviews on 48 people who use drugs complemented with treatment center data. They report that people who use drugs are particularly vulnerable to the effects of economic sanctions whereby scarce resources can lead them to switch to using cheaper and more harmful drugs and also engaging in higher-risk behaviors (including shared drug use/sharing needles), especially among those of low socio-economic status. These findings generally align with others who have found that sanctions disproportionately impact the poor and marginalized and that resultant economic hardship can reduce access to harm reduction programs (Shariatirad & Maarefvand, 2013).

While limited to the case study of Iranian economic sanctions, this study exposes an understudied economic and policy risk environment for drug use and infectious disease transmission: international trade. Importantly, health interests are often not prioritized in the context of trade negotiations or economic sanctions enacted in response to political/military conflict. Hence, special attention regarding new trade arrangements (such as the Trans-Pacific Partnership Agreement and Transatlantic Trade and Investment Partnership¹) and imposition of trade sanctions in response to conflict (such as in the Ukraine crisis) needs to be more thoroughly assessed for its potential impact on essential medicines and public health financing for drug abuse treatment.

Political Transitions and Ethnic Minority Drug Abuse

Another unique theme that emerged in this special collection was the potential “hidden” impact of political transition on certain ethnic minority groups and its association with transnational migration and substance use. In Tang’s study, an examination of Hong Kong’s transfer of sovereignty from the United Kingdom to the People’s Republic of China in 1997 and its possible association with increased use of heroin among children of ex-Gurkhas (Nepalese soldiers stationed in Hong Kong) is explored through ethnographic research from 59 informants (Tang, 2014).

Tang’s examination reveals certain clues as to why political transition can influence drug use behavior in a specific ethnic minority group that faces distinct challenges and disruption resulting from migration. Specifically, children of ex-Gurkhas often migrate from Nepal to Hong Kong at a young age, a process that can lead to changes/disruptions in social networks, stresses of acculturation, social marginalization, and exposure to networks at higher risk for heroin use. Though limited in its findings, the study provides an interesting preliminary examination of how macro-level changes in political environments can lead to migration policies that then influence micro-level behaviors associated with substance abuse.

While the study highlights a specific historical event of colonial political transition, it nevertheless provides us with some concepts to explore in the context of recent conflict-

¹The Trans-Pacific Partnership Agreement (“TPPA”) and Transatlantic Trade and Investment Partnership (“TTIP”) are newly proposed regional free trade agreements (“FTAs”) that are currently in the process of negotiation. TPPA is an FTA between twelve countries (including the United States and a number of Asia-Pacific countries) and TTIP is an FTA between the United States and the European Union. Countries are pushing to get these trade agreements finalized for economic reasons, but several public health stakeholders have raised serious concerns regarding how obligations in these agreements could adversely impact tobacco control efforts and access to medicines, though the potential impact on substance using populations has yet to be assessed.

related international migration and its possible impact on ethnic minorities and drug use. Specifically, several countries in the Middle East continue to undergo massive disruptions following the “Arab Spring” leading to millions of refugees and internally displaced persons crossing borders to escape hostility. Countries like Syria, Iraq, Libya and Afghanistan have experienced significant disruption from Big Events of civil war and political violence often associated with sectarian/ethnic conflict. Hence, the impact of these events on drug use risk behavior and cross-border infectious disease transmission among ethnic minorities who experience forced migration/displacement is an area that demands immediate attention.

Historical Context of Impact of Big Events on Indigenous Populations and Substance Abuse

In the piece by Nutton & Fast, colonialism in North America (U.S. and Canada) is examined as the intergenerational transmission of historical trauma events (including forced assimilation and cultural dispossession) experienced by generations of Indigenous peoples that collectively form a Big Event that brings with it significant negative effects for health and wellbeing. The authors specifically examine this Big Event as a potential pathway for increased risk of substance use, and note that rates of past year illicit drug and substance use disorder are higher in American Indians or Alaska Natives when compared to all other racial groups, including among indigenous youths (B Whitbeck, Walls, & Welch, 2012).

Substance use in indigenous populations is described as a response to cultural factors related to the Big Event of colonialism, whereby use and abuse represents a form of self-medication or coping to historical stressors (forced relocation/displacement) and prolonged oppression (religious, cultural, language, etc.). In response, authors suggest that a “Big Solution” response may be necessary, including elements of “decolonizing” strategies (i.e. re-learning language, engaging in traditional/spiritual practices), identity resolution/formation, and culturally adapted interventions, as responses to mitigating negative health outcomes associated with substance use behaviors impacted by a legacy of colonialism.

Nutton & Fast identify how colonial policies that originating centuries ago continue to have a lasting impact on health-related disparities and risk factors associated with substance use. Yet, the challenges to the health and human rights of indigenous populations remains today, as several indigenous communities remain at the risk of displacement, discrimination, marginalization, and lack of sufficient political representation (Durie, 2003; Gracey & King, 2009). International recognition of the need to address these challenges was partially addressed with the 2007 adoption of the United Nations Declaration on the Rights of Indigenous Peoples. However, the impact of this U.N. declaration on national drug policies and risk factors associated with substance use among indigenous peoples requires further exploration.

Ecological Disasters and Alteration of Drug Environments and Behaviors

In the study by Pouget and colleagues, a specific case study of a large-scale ecological disruption in a high-income country (the United States of America) is examined for its impact on PWIDs. Hurricane Sandy undoubtedly qualifies as a “Big Event”, and caused significant economic damage in the U.S. (estimated at \$65 billion) across 24 different states

on the eastern seaboard (“Hurricane Sandy Anniversary: No Relief for Some Victims,” n.d.). The impact was particularly felt by PWIDs in New York City, where Pouget et al. interviewed over 300 PWIDs, approximately half (49.8%) of whom were on prescribed methadone maintenance therapy (MMT) or buprenorphine maintenance therapy (BMT), to determine the impact of the storm on injection drug use and related HIV risk behaviors. Results from the interviews are troubling, with respondents reporting significant disruptions in medical treatment and drug access (including MMT/BMT and HIV therapy), use of informal sources to avoid withdrawal, and engaging in riskier injection practices.

One of the lessons emanating from this study is that even for countries with immense resources to respond to natural disasters (such as the U.S.), the needs of PWIDs as a vulnerable population group remains inadequately addressed in disaster planning and response measures. Specifically, the closure of substance abuse treatment clinics and displacement of patients from treatment access is an ongoing challenge likely to repeat itself (McClure, Mendoza, Duncan, Rotrosen, & Hansen, 2014). This is despite similar challenges faced by PWIDs during Hurricane Katrina in 2005 that devastated Louisiana and Mississippi and also resulted in exposure to trauma, increased HIV risk behaviors, and changes in the local drug market (Dunlap, Graves, & Benoit, 2012; Wagner et al., 2009).

Hence, it is clear that further examination of the negative impacts of ecological “Big Events” on substance abuse treatment services and resultant risk of infectious disease spread from other global disasters (such as for Typhoon Haiyan Philippines, Cyclone Nargis Myanmar, and the 2010 and 2008 Haiti and China Sichuan province earthquakes) is needed to further identify and more protectively respond to the immediate challenges faced by PWIDs in natural disasters. This is particularly imperative given growing recognition that climate change may result in increasing frequency of ecological disasters and its overall adverse and long-lasting consequences for local and global health (Patz, Frumkin, Holloway, Vimont, & Haines, 2014).

DISCUSSION

The studies in this special issue provide a unique examination of the impact of Big Events on drug use behavior as well as access to treatment and harm reduction programs in the context of the recent global financial crisis, economic and trade sanctions, political transition and its impact on ethnic minorities, colonialism and indigenous communities, and ecological disasters. Importantly, all of these Big Events have been described as having the potential to create destabilized environments that are comprised of different forms of risk and protective factors at the environment, community and individual level, possibly predisposing individuals to substance use and infectious disease related risks (Strathdee et al., 2006). Additionally, Friedman and colleagues have carefully explored the interactions between casual pathways and autonomous actions through which Big Events can create drug related harms and infectious disease outbreaks (Friedman et al., 2006; 2009; 2013).

Regardless of the theoretical model used to explore them, it is clear that Big Events lead to immense trauma, displacement, and disruption to critical healthcare services/treatment and that people who use drugs are among the most vulnerable and underserved in the midst of

these crises. The ongoing regional conflict in the Ukraine, that included the recent annexation of Crimea by Russia and subsequent ban of OST in the territory, is yet a further example that Big Events of war and political instability continue to directly impact substance abuse treatment and can exacerbate the spread of diseases like HIV (Kazatchkine, 2014).

Hence, new solutions and commitments are necessary at a global policymaking level that: (1) proactively identify Big Events (both pre and post event) that have the potential to negatively impact substance use and abuse populations; (2) determine the category of Big Event (e.g. war, political, economical, ecological, historical trauma, etc.) and identify common factors/pathways that lead to higher risk drug behavior and disease transmission; (3) development of drug treatment and policy interventions that are culturally appropriate and also can nimbly respond to the unique risk characteristics of the affected populations; (4) advocating for prioritization of substance abuse treatment access in policymaking decisions as a means of preventing infectious disease spread and mitigating the long-term negative impacts of Big Events on society; and (5) stakeholder analysis to determine where advocacy/policymaking efforts need to be directed.

Equally important will be the generation of research and data on how to mitigate the effects of Big Events as suggested by Nikolopoulos et. al., complemented with evidence-based policymaking and implementation science efforts similar to those aimed at better understanding the impact of emerging drug policy reform measures (Werb et al., 2014). This special issue takes important steps towards achieving this goal by providing a diverse and multifaceted perspective of Big Events and their impact on global substance use and abuse. Further research is clearly necessary as “Big Events” of global conflict, economic instability, ecological disasters, and those unforeseen, are magnified in an era of globalization and represent clear catalysts for high risk drug behaviors and infectious disease epidemics.

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