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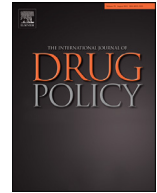
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Letter

Response to “COVID-19 economic impact payments and opioid overdose deaths”

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Sprague and colleagues (Sprague et al., 2022) investigated the temporal link between stimulus checks and opioid deaths in Ohio, US. As forecasted by public health experts, the authors found that opioid-related deaths have risen since the onset of COVID-19 in the US (Ochalek, Cumpston, Wills, Gal, & Moeller, 2020; Slavova, Rock, Bush, Quesinberry, & Walsh, 2020).

We have three areas of concern in Sprague et al. (2022) and provide potential remedies. The first area is the overreliance on causal language and interpretations that do not align with the study design for causal inference. While the authors state that their findings do not provide a direct causal link between economic incentive payments and opioid overdose deaths, they use language suggesting otherwise. For example, the last sentence in the Introduction says the authors set out to, “investigate the timing of the COVID-19 economic impact payments and the increases in opioid overdose deaths that have been reported during the COVID-19 pandemic (Vieson, Yeh, Lan, & Sprague, 2021).” This is misleading because the methodology from their time series analyses focuses on the temporal relationships in a single time series (opioid overdose deaths in Ohio) and no data from the COVID-19 pandemic (e.g., case rates, hospitalizations) or economic impact payments (e.g., number of eligible individuals, timing of payment receipt) are presented in the analysis. Another example is the use of the Granger causality test. Here the authors acknowledge that the test does not indicate causality, but that is not quite accurate. Even the reference the authors provide (Barrett & Barnett, 2013) states that “In summary, GC measures causal effect in a clear and unambiguous way on stationary multivariate autoregressive processes.” Therefore, we were confused as to why the authors claim that the Granger causality test does not indicate causality. The authors further go on to say in the context of the Granger causality test that, “A significant test in our study would indicate that the identified change point is predictive of a temporal increase in opioid overdose deaths, not simply a happenstance in time.” This is an incorrect interpretation of a significance test in Granger causality, as a significant test indicates that one time series Granger-causes another

time series, rather than saying anything specific about the direction of increase in the effect time series.

The second area of concern is the methodology. With regards to confounding, their misleading association between overdose deaths and economic incentive payments explicitly fails to consider socioeconomic data such as race, ethnicity, sex, and residential address, which could be used to assign area-level socioeconomic status. These data are available in the death certificate data. The authors fail to account for the wide-ranging impacts of social isolation due to the COVID-19 pandemic on mental health and on substance abuse (Bartel, Sherry, & Stewart, 2020; Zaami, Marinelli, & Vari, 2020) and potential confounding variables such as lapses in harm reduction resources due to the pandemic, and high rates of synthetic opioids in the drug supply during a time at which adulteration of nearly all illicit drugs with fentanyl was on the rise (O'Donnell, Tanz, Gladden, Davis, & Bitting, 2021; Ohio Department of Mental Health and Addiction Services [OhioMHAS], 2021). Unemployment may be an underlying factor on their causal pathway, with the economic impact payment being an instrumental variable. Unemployment has been consistently associated with overdose (Rudolph et al., 2020) and national unemployment claims peaked in April 2020 at 15%, approximately around the time of the first distribution of impact payments (US Congressional Research Service, 2021). With regards to the Granger causality test, we recommend that the authors should be using two different time series to test whether one time series can be used to predict another time series. This was done in the reference they provided (Otterstatter, Amlani, Guan, Richardson, & Buxton, 2016) where those authors had time series data on weeks when checks were issued and when checks were not issued—the exposure time series—and could test the causal link with the time series on overdose deaths—the effect time series. In the current study, there is no such exposure time series, and the use of a single change-point is hardly sufficient for Granger causality test analysis.

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The third area of concern is the use of stigmatizing language that has been used since the publication of the article by public officials to further perpetuate stigma for people who use drugs. The study mentioned the “check effect”, which the authors describe as a phenomenon in which low-income individuals use government assistance to pay for drugs. This is akin to calling women on government assistance “welfare queens”. This is incredibly stigmatizing for social welfare programs and will undoubtedly lead to political fear mongering and possibly reduced use of services. In fact, after the publication of this study a leading government official in Ohio stated that based on the findings of this study “The link between pandemic relief money and opioid overdose deaths is now evident,” Yost said. “The intent was to help Americans navigate this deadly pandemic but it also fueled a tidal wave of overdoses.” (Sullivan, 2022). The press release (Sullivan, 2022) further stated that “The introduction of economic-assistance payments facilitated substance abuse and increased overdose deaths. “Throwing money at a problem isn’t always the best solution,” Yost said. “Let the data be the guide to learn from the past. Addiction is a sickness you can’t cure with just cash.”” These statements are highly stigmatizing of social welfare programs and have the potential to be used as misinformation with long-term harms to people who need the diverse supports to mitigate the impact of addiction. These inflammatory remarks contribute to stigma towards people who use drugs, which can reduce public support for harm reduction services and evidence-based drug policies and can limit our ability to effectively respond to the opioid overdose crisis (Tsai et al., 2019). Further, these statements ignore that fentanyl is found in the supply of other drugs (including psychostimulants) that can increase a person’s risk for overdoses.

Declarations of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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