# LETTER TO THE EDITOR REPLY

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## Reply by authors

Suicide rates differ when comparing older adults by specific age groups (e.g. Shah *et al.*, 2016) and they have different socio-demographic and clinical characteristics (Koo *et al.*, 2017). In order to prevent suicide in older adults, these should not be treated as a homogenous group.

We do agree with Kawada (2017) that there is a need for rigorous study designs. Nevertheless, we cannot deny the importance of descriptive studies using reliable registers such as – for example – the Queensland Suicide Register (QSR). The QSR is a comprehensive database on suicide mortality; it holds all records for suicides in Queensland since 1990, with information from police reports to the Coroner (Form 1), post-mortem autopsy reports, toxicology reports, and Coroner's findings. Being a register, it is not inclusive of a control group; therefore, we were able to identify "characteristics" of specific age groups among older adult suicides, rather than "risk factors" for suicide. Although we cannot estimate risks, descriptive studies are often the first important step in epidemiological research. This first step aids hypothesis generation so that subsequent studies are able to investigate the topic of interest with a rigorous design including control or comparison groups (Grimes and Schulz, 2002).

Similarly to our study, Yeh *et al.* (2017) presented suicide rates for the age groups 65–74 (young-old), 75–84 (middle-old), and 85+ years (oldest old). However, their analysis did not compare those age groups but focused on psychiatric contacts in older adults' suicide cases compared to matched controls. These controls were "those who did not attempt suicide" (Yeh *et al.*, 2017; p. 190): the authors did not clarify if they were community controls or other types of death. It is important to note that there are differences in Asian and Western suicide rates and risk factors (World Health Organization, 2014). Although similarly in both studies, suicide rates increased from the age group 65–74 (young-old) to the age group over 85 years (oldest old), rates in Queensland Australia (13.7 to 19.3 per 100,000) were smaller than in Taiwan (30.5 to 43.5 per 100,000), which is similar when comparing Western and Asian countries (Yeh *et al.*, 2017).

Kawada also raised concerns regarding the risk of suicidal behavior in older adults with dementia, from a recent narrative literature review (Diehl-Schmid *et al.*, 2017), noting that studies investigating prevalence and risk factors for suicide in people with dementia had important methodological limitations. Although dementia was significantly more prevalent in middle-olds, who died by suicide compared to young-olds in our study, overall dementia was not a prevalent diagnosis across all three age groups, ranging from 0.8% in young-olds to 4.8% in middle-olds and 4.3% in the oldest old (Koo *et al.*, 2017). A previous case-control psychological autopsy study from Australia (Queensland and New South Wales) found a lower prevalence of dementia and other cognitive disorders among suicide cases in older adults when compared to sudden death controls (1.4% vs. 10.3%) (De Leo *et al.*, 2013), a fact that does correspond to the conclusion by Diehl-Schmid *et al.* (2017): that dementia as such does not appear to be a risk factor for suicide.

We agree with Kawada (2017) that further rigorous studies are warranted to better understand risk factors related to suicide in older adults, especially stratifying by age groups.

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