

第十三届“中国青少年科技创新奖”候选人 推荐结果公示

根据共青团中央《第十三届“中国青少年科技创新奖”候选人推荐工作》通知要求，经学院推报，校团委审核，拟推荐精神卫生学院 2018 级应用心理学专业学生刘德彪为我校推荐候选人。现将该生申报佐证材料予以公示。

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The prevalence and incidence of major depressive disorder in 8079 Chinese university freshmen before and during COVID-19

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ABSTRACT

Background: COVID-19 pandemic may impact the prevalence and incidence of depression in college students. However, there is no longitudinal study focusing on major depressive disorder (MDD) before and during COVID-19 pandemic.

Methods: A cohort study was carried out among 8079 Chinese college freshmen. The baseline survey was conducted in 2018 (T0) and annual follow-ups were in 2019 (T1, before COVID-19) and in 2020 (T2, during COVID-19). CIDI-3.0 was used to diagnose MDD. Random effects logistic models of panel data analysis were used for the risk of MDD incidence. STATA 15.1 was used for all analysis.

Results: The weighted 12-month prevalence of MDD at T2 (2.10%) was significantly lower than that at T1 (2.67%) ($p < 0.001$). However, among students who reported exposure to the COVID-19 events, the annual prevalence of MDD at T2 was higher than that at T1 (4.21% vs. 2.79%, $p < 0.001$). The incidence from T0 to T1, incidence from T1 to T2, and the 2-year incidence was 2.23%, 1.34% and 3.75%, respectively. Only 8.93% of MDD students had chosen to seek professional help during the COVID-19 pandemic period.

Limitations: The computer assisted CIDI may not be as sensitive and specific as the diagnosis made by a psychiatrist and may have caused report bias.

Conclusions: Although the MDD incidence of college students was decreasing over time, the impact of the pandemic on student mental health may depend on exposure to COVID-19 events. Not seeking professional help in the Chinese college students is still an important issue.

Original Article

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The impact of self-efficacy on first onset and prognosis of major depressive disorder: findings from a longitudinal study in a sample of Chinese first-year university students

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Abstract

Background. Self-efficacy is a pivotal factor in the etiology and prognosis of major depression. However, longitudinal studies on the relationship between self-efficacy and major depressive disorder (MDD) are scarce. The objectives were to investigate: (1) the associations between self-efficacy and the 1-year and 2-year risks of first onset of MDD and (2) the associations between self-efficacy and the 1-year and 2-year risks of the persistence/recurrence of MDD, in a sample of first-year university students.

Methods. We followed 8079 first-year university students for 2 years from April 2018 to October 2020. MDD was ascertained by the Chinese version of the Composite International Diagnostic Interview (CIDI-3.0) based on self-report. Self-efficacy was measured by the 10-item General Self-efficacy (GSE) scale. Random effect logistic regression modeling was used to estimate the associations.

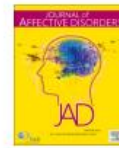
Results. Among participants without a lifetime MDD, the data showed that participants with high baseline GSE scores were associated with a higher risk of first onset of MDD over 2 years [odds ratio (OR) 1.04, 95% confidence interval (CI) 1.01–1.08]. Among those with a lifetime MDD, participants with high baseline GSE scores were less likely to have had a MDD over 2 years (OR 0.93, 95% CI 0.88–0.99) compared to others.

Conclusions. A high level of GSE may be protective of the risk of persistent or recurrent MDD. More longitudinal studies in university students are needed to further investigate the impact of GSE on the first onset of MDD.

Introduction

Major depressive disorder (MDD) is a leading disease burden worldwide (Abajobir et al., 2017; Whiteford et al., 2013). MDD is episodic in nature, and epidemiological studies have consistently found that youth and young adults have a higher prevalence of MDD compared to older people (Kessler et al., 2007, 2003; Patten et al., 2015). Clearly, preventing the first onset of MDD in the population and improving the prognosis of MDD, particularly in youth and young adults, is critical for reducing the disease burden associated with MDD.

Self-efficacy is widely considered a pivotal factor in the development and prognosis of depression. Self-efficacy is an individual's perception about his or her abilities to execute behaviors necessary to produce specific performance attainments (Bandura, 1986). There are several possible mechanisms, through which self-efficacy plays a role in the development of depression. First, a person's perception of coping abilities affects the arousal threshold and the abilities to tolerate emotional threats such as depression and anxiety (Ehrensberg, Cox, & Koopman, 1991). Second, a lack of self-efficacy can lead to inability to meet the expected standards of others, limited control over negative thoughts, hindered development of supportive social networks, and anticipatory apprehension when faced with challenging situation (Muris, 2002). Third, when faced with a stressor, individuals with low self-efficacy tend to



Research paper

Antidepressants use and the risk of type 2 diabetes mellitus: A systematic review and meta-analysis

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ABSTRACT

Background: This study aimed at examining the effects of different antidepressants on the new onset of T2DM. **Methods:** Systematic literature retrieval for cohort and case-control studies was conducted in PubMed, Embase, Web of Science, Cochrane library, Clinical Trials Register of the Cochrane Collaboration and CENTRAL published from January 2000 to October 2020. Pooled estimates were calculated and subgroup analyses were conducted by a fixed or random effects model according to the heterogeneity. Funnel plots and Egger's test were performed to evaluate publication bias. Stata Version 15.1 was used for data analysis.

Results: Thirty studies (24 cohort, 4 nested case-control and 2 case-control studies) were included covering 2,875,567 participants with the follow-up periods from 1 year to 18 years (Median=8.4 years). The pooled estimates of antidepressants use and new-onset T2DM were HR=1.24 (95% CI: 1.18, 1.31), RR=1.42 (95% CI: 0.99, 2.05) and OR=1.17 (95% CI: 1.03, 1.32), respectively. However, subgroup analyses showed that only tricyclic antidepressants (TCAs) use was positively associated with the new onset of T2DM in both cohort studies (combined RR=1.39, 95% CI: 1.17, 1.65) and case-control studies (combined OR=1.25, 95% CI: 1.05, 1.50). Moreover, the risk of T2DM was increased with the duration of antidepressants use in a linear trend ($R^2=88.51\%$, $P=0.009$).

Limitations: Heterogeneity might impact the results and inference.

Conclusions: Antidepressants use might be a risk factor for the new onset of T2DM. Patients with long-term antidepressants use should be evaluated cautiously for T2DM risk. Routine T2DM screening is necessary in antidepressants users.

1. Introduction

The number of people suffering from depression is increased by 18.4% from 2005 to 2015 (Voset, 2016) and the total number of people with depression was estimated to exceed 322 million in 2015, accounting for 4.4% of the global population (WHO, 2017). The decrease of neurotransmitters (e.g., norepinephrine, serotonin, and/or dopamine, etc.) plays an important role in the onset and development of depression

(Delgado, 2000; Salamone et al., 2016). Antidepressants mainly work by increasing corresponding neurotransmitters to achieve anti-depression effects, which are commonly classified as monoamine oxidase inhibitors (MAOIs), tricyclic antidepressants (TCAs), selective serotonin reuptake inhibitors (SSRIs), serotonin–norepinephrine reuptake inhibitors (SNRIs), norepinephrine–dopamine reuptake inhibitors (NDRIs), serotonin-2 antagonist reuptake inhibitors (SARIs) and noradrenergic and specific serotonergic antidepressants (NaSSAs)

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The Association Between Folate and Alzheimer's Disease: A Systematic Review and Meta-Analysis

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Alzheimer's disease (AD) is the most common type of neurodegenerative disease leading to dementia in the elderly. Increasing evidence indicates that folate plays an important role in the pathogenesis of AD. To investigate the role of folate deficiency/possible deficiency in the risk of AD and the beneficial effect of sufficient folate intake on the prevention of AD, a systematic review and meta-analysis were performed. The Web of Science, PubMed, CENTRAL, EBSO, CNKI, CQVIP, and Wanfang databases were searched. The analysis of cross-sectional studies showed that the standardized mean difference (SMD) was -0.60 (95% confidence interval (CI): -0.65 , -0.55), indicating that plasma/serum folate level is lower in AD patients than that in controls. Moreover, the combined odds ratio (OR) of case-control studies was 0.96 (95% CI: 0.93 , 0.99), while the combined ORs were 0.86 (95% CI: 0.46 , 1.26) and 1.94 (95% CI: 1.02 , 2.86) in populations with normal levels of folate (≥ 13.5 nmol/L) and folate deficiency/possible deficiency (< 13.5 nmol/L), respectively. In addition, the risk ratio (RR) of the cohort studies was 1.88 (95% CI: 1.20 , 2.57) in populations with folate deficiency/possible deficiency. Furthermore, when the intake of folate was equal to or higher than the recommended daily allowance, the combined RR and hazard ratio (HR) were 0.44 (95% CI: 0.18 , 0.71) and 0.76 (95% CI: 0.52 , 0.99), respectively. These results indicate that folate deficiency/possible deficiency increases the risk for AD, while sufficient intake of folate is a protective factor against AD.

Keywords: Alzheimer's disease, folate level, folate deficiency, sufficient folate intake, meta-analysis

INTRODUCTION

Alzheimer's disease (AD) is the most common type of neurodegenerative disease leading to dementia in the elderly. A progressive memory loss and deterioration of other cognitive functions are the main clinical manifestations, while extraneuronal neuritic plaques, intraneuronal neurofibrillary tangles, and neuronal loss are the neuropathological hallmarks of AD (Hebert et al., 2013; Bakota and Brandt, 2016; Mantzavinos and Alexiou, 2017; Li et al., 2018). According to the age of onset, AD is classified into early-onset AD (EOAD) and late-onset AD (LOAD). Compared with EOAD (onset before age 65), LOAD (onset after age 65) accounts for 95% or more of AD cases (Alzheimer's Association, 2012). With the rapid increase of the aging population worldwide, over



Predictors of suicidal ideation, suicide attempt and suicide death among people with major depressive disorder: A systematic review and meta-analysis of cohort studies

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1. Introduction

Suicide is a global public health challenge nowadays. Every 40 s, one person may die because of suicide (Nock et al., 2008a). Suicide-related screening or assessment tools such as Tool for Assessment of Suicide Risk (TASR) which has been widely used in clinical practice, could help professionals effectively identify people at suicide risk, thus contributing to suicide prevention and suicide deaths (Wong, 2018; Large, 2018). The crisis interventions for suicide (e.g. help hotline, psychiatric emergency room and cognitive behavioral therapy, etc.) could reduce suicide deaths temporarily, and these interventions might also reduce the prevalence of suicide ideation and attempt (Nordentoft, 2011; Wong, 2018). However, the causes of suicidal ideation, suicide attempt and suicide death may be different and the etiology can be multifactorial, including biological factors, psychological factors, cognitive factors, and environmental factors (Sudol and Mann, 2017; Coentre et al., 2017; Gournellis et al., 2018).

Many people who had died of suicide have mental disorders, especially major depressive disorder (MDD) which occurred in half to two thirds of suicide cases (Hegerl, 2016). The pooled lifetime prevalence of suicide attempt was 31% (95% CI: 27%–34%) and the pooled 1-year prevalence was 8% (95% CI: 3%–14%) (Dong et al., 2019) in 27,340 individuals with MDD. 1.45 suicide deaths and 2.76 suicide attempts per 1000 patient-years were reported among 6934 MDD individuals even during the long-term antidepressants treatment (Braun et al., 2016).

Identifying individuals with MDD who are at high risk of suicide is a public health challenge and has important clinical implications (May et al., 2012; Spijker et al., 2010; Witte et al., 2009; Harris and Barraclough, 1997). In terms of prediction, the predictors of suicidal ideation, suicide attempt and suicidal death among MDD individuals may be different (Maniam et al., 2014; Nock et al., 2008b). For example, suicidal ideation is episodic, and has quick onset and short duration. So far, it is difficult to monitor and intervene suicidal ideation in real time. Factors which could predict suicide attempt or deaths may not be predictive for suicidal ideation (Kleiman and Nock, 2018).

Awareness of risk factors for suicide in MDD is crucial for informing clinical practice and suicide interventions (Hawton et al., 2013; May et al., 2012). A meta-analysis in 2013 including 19 studies showed that male gender, family history of psychiatric disorder, previous attempted suicide, anxiety comorbid and severe depression were predictors for suicide death in people with depression which included not only MDD, but melancholia and other mood disorders (Hawton et al., 2013). Although the correlations between suicide and depression had been discussed in many studies (Braun et al., 2016; Maniam et al., 2014; Nock et al., 2008b; Nordentoft, 2011; Wong, 2018), the predictors of suicide in depressed patients are inconsistent. There was no meta-analysis that illustrate predictors of suicidal ideation, suicide attempt and suicide death among people with MDD, respectively. The aim of this study was to conduct a systematic review and meta-analysis of the predictive factors for suicidal behaviors (suicidal ideation, suicide attempt and



Gender-Specific Related Factors for Suicidal Ideation During COVID-19 Pandemic Lockdown Among 5,175 Chinese Adolescents

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Related Factors for Suicidal Ideation
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Background: Suicide was an urgent issue during the pandemic period in adolescents. However, few studies were focused on suicide during the coronavirus disease 2019 (COVID-19) pandemic lockdown.

Methods: An online survey was conducted among 5,175 Chinese adolescents from June 9th to 29th in 2020 to investigate the prevalence of suicidal ideation (SI) during COVID-19 pandemic lockdown. A gender-specific stepwise logistic regression model was used. All analyses were performed with STATA 15.0.

Results: About 3% of the participants had reported having SI during the COVID-19 pandemic lockdown period. The prevalence of female SI (3.64%, 95% CI: 2.97–4.45%) was higher than that of males (2.39%, 95% CI: 1.88–3.05%) ($\chi^2 = 6.87$, $p = 0.009$). Quarreling with parents [odds ratio (OR) = 9.73, 95% CI: 5.38–17.59], insomnia (OR = 5.28, 95% CI: 2.81–9.93), previous suicide attempt history (OR = 3.68, 95% CI: 1.69–8.03), previous SI history (OR = 2.81, 95% CI: 1.30–6.06), and feeling depressed during pandemic lockdown (OR = 2.26, 95% CI: 1.22–4.18) were positively associated with the males' SI. However, having emptiness inside (OR = 4.39, 95% CI: 2.19–8.79), quarreling with parents (OR = 3.72, 95% CI: 2.16–6.41), insomnia (OR = 3.28, 95% CI: 1.85–5.80), feeling anxious (OR = 2.62, 95% CI: 1.46–4.70), and longing for father's emotional warmth (OR = 0.38, 0.20–0.72) were associated mostly with females' SI.

Conclusions: Female adolescents, who felt emptiness from their families and their fathers' emotional warmth, were at much higher risk of having SI during COVID-19 lockdown. We must specify suicide prevention policy and interventions for adolescents