



Short Communication

Associations between the timing of childhood adversity and adulthood suicidal behavior: A nationally-representative cohort



Hyoung Yoon Chang^{a,b,c}, Yeonseung Chung^d, Katherine M. Keyes^e, Sun Jae Jung^f,
Seung-Sup Kim^{g,*}

^a Department of Psychiatry, College of Medicine, Ajou University, Gyeonggi-do, Republic of Korea

^b Sunflower Center of Southern Gyeonggi for Women and Children Victims of Violence, Suwon, Republic of Korea

^c Center for Traumatic Stress, Ajou University Medical Center, Suwon, Republic of Korea

^d Department of Mathematical Sciences, Korea Advanced Institute of Science and Technology, Daejeon, Republic of Korea

^e Department of Epidemiology, Columbia University Mailman School of Public Health, New York, US

^f Department of Preventive Medicine, Seoul National University College of Medicine, Seoul, Republic of Korea

^g Department of Public Health Sciences, Korea University, Seoul, Republic of Korea

ARTICLE INFO

Article history:

Received 20 April 2015

Received in revised form

11 June 2015

Accepted 17 June 2015

Available online 26 July 2015

Keywords:

Childhood adversity

Suicidal ideation

Attempted suicide

Epidemiology

Republic of Korea

ABSTRACT

Background: Although childhood adversities (CAs) are known to be associated with later suicidal behavior, it is uncertain whether the timing of specific CAs may influence this association.

Methods: We analyzed nationally representative data for 9205 participants from the Korean Welfare Panel Study. Four different CAs (parental death, parental divorce, suspension of school education and being raised in a relative's house due to financial strain) were assessed and were categorized as early childhood and adolescent onset. Lifetime experiences of suicidal behaviors along with the age of the first time experience were recorded. Cox regression was used.

Results: After adjusting for age, sex, and childhood socioeconomic status, parental death before the age of 12 was associated with adulthood suicidal behavior (ideation HR 1.35, 95% CI 1.13, 1.61; attempt HR 1.60, 95% CI 1.02, 2.52), while suspension of school due to financial strain was associated with suicidal behavior when it occurred at adolescence (ideation HR 1.48, 95% CI 1.22, 1.79; plan HR 1.69, 95% CI 1.16, 2.48). When we also adjusted for adulthood SES, which is a potential mediator, there was no significant change except that the association between early parental death and suicidal attempt became non-significant (HR: 1.43, 95% CI: 0.92, 2.26).

Limitations: Experience of CA was assessed retrospectively, and the assessment of suicidal attempt was not specifically defined. There could be selection bias due to loss to the follow-up.

Conclusions: There may be a critical period for the effect of CA on later suicidal behavior depending on the characteristics of CA.

© 2015 Elsevier B.V. All rights reserved.

1. Introduction

Suicide is a serious public health problem worldwide, exhibiting a 60% increase over the last 45 years (WHO, 2011). In South Korea the suicide rate is the highest among Organization for Economic Cooperation and Development (OECD) countries and is rapidly increasing (Organization for Economic Cooperation and Development, 2007). Suicide attempt, which is estimated to be approximately 25 times for every 1 completed suicide (Substance Abuse and Mental Health services Administration, 2014), yields

morbidity to attempters themselves (Goldman-Mellor et al., 2014) and to those close to them (Geulayov et al., 2014). A growing body of studies reported that childhood adversity, such as experience of parental divorce, abuse, or neglect, could be a central antecedent factor in the development of adulthood suicidal behavior (Bruffaerts et al., 2010). In a recent study based on a nationwide community sample of Korea, paternal and maternal death during before the age of 18 was significantly associated with lifetime suicide attempt (Jeon et al., 2013).

Several limitations exist in previous studies. Few studies have examined the association between specific periods of adversity occurrence and later suicidal behaviors. The effect of childhood adversities may be different based on the timing of such events, which can provide insight on when to intervene and on the impact of adversity on the individual. Second, childhood adversities

* Correspondence to: 368 Hana Science Hall B, Anam-dong 5-ga, Seongbuk-gu, Seoul 136-713, Republic of Korea. Fax: +82 2 940 2877.

E-mail address: ssk3@korea.ac.kr (S.-S. Kim).

related to financial strain were not considered in these studies, although a growing body of literature suggests that there is an association between economic troubles and suicidal behaviors in Asia (Chang et al., 2009). Furthermore, past studies did not control for childhood socioeconomic status, which is an important confounder that could influence both the experience of childhood adversity and later suicidal behaviors (Strand and Kunst, 2006). Finally, studies on the relationship between childhood adversities and suicidal behavior in Asian countries are scarce. It is not clear whether prior findings could be generalized to explain suicidal behaviors in Asian countries.

In this study, we assessed four types of adversities (parental death, parental divorce, suspension of school education due to financial strain, and being raised in a relative's house due to financial strain) and classified each adversity into two categories based on the timing of occurrence: early childhood (0–12 years old) or adolescence (13–17 years old). Then, the association between each CA and lifetime experiences of three kinds of suicidal behaviors (ideation, plan, and attempt) was examined, after adjusting for potential confounders, using a nationally-representative dataset in South Korea. Further, the change in the association was investigated after additional adjustment for adulthood SES, which is a potential mediator (Harper et al., 2002). We hypothesized that, while all four kinds of childhood adversities will be associated with increased adulthood suicidal behavior (Kim et al., 2013), adversities related to attachment (parental death or divorce) will show higher effect when occurring during early childhood and adversities related to financial difficulties (suspension of school education due to financial strain or being raised in a relative's house due to financial strain) will exhibit stronger influence when occurring during adolescence.

2. Methods

We analyzed data from the Korea Welfare Panel Study (KOWEPS), a nationally representative longitudinal survey. Participants were recruited by a two-stage stratified cluster sampling, and the annual survey was conducted by the Korean Institute of Social and Health Affairs with the Social Welfare Research Institute of Seoul National University. To date, data from the 1st through 9th waves of KOWEPS have been publicly released, and the datasets with the user guide can be downloaded from the website (www.koweps.re.kr). This study received Institutional Review Board exemption from the Office of Human Research Administration at the Korea University because the study comprised archival data.

At the 1st wave (2006), four questions were asked concerning the experience of childhood adversities: “During your childhood (0–17 years), did you ever experience (1) divorce of parents, (2) death of parents, (3) being raised in a relative's house due to financial strain in your family, and (4) suspension of school education due to financial strain in your family?” Response options were binary (yes/no). For each adversity, people who answered ‘Yes’ were required to report the ages of the first time experience of the event. The CAs were categorized as early childhood (before 13 years of age) and adolescent onset (after 13 years old). At the 6th wave (2011), three questions on lifetime suicidal behaviors were asked: “Have you ever (1) thought about committing suicide thoroughly (ideation), (2) planned to commit suicide concretely (plan), (3) tried to commit suicide (attempt)?” Those who responded ‘Yes’ for any suicidal behavior were required to report the age of first suicidal behavior occurrence. Age, sex, income, education, and four kinds of childhood SES variables (i.e., education and occupation of each parent) were expected to be associated with both CAs and lifetime suicidal behaviors, so they were considered as potential confounders in accordance with previous

literature (Gilman et al., 2002; Harper et al., 2002). We also examined how the association changed when we additionally adjusted for adulthood SES.

Chi-square tests were used to assess the distributions of population characteristics. *P*-value of less than 0.05 was considered significant. Cox proportional hazard regressions were used to examine the relationships between early childhood- and adolescent-onset CA and each lifetime suicidal behavior, adjusting for potential confounders. The reference group was those not experiencing the CAs. For people who experienced a lifetime suicidal behavior, the age of the first experience was recorded as a time to event. Meanwhile, people not experiencing a lifetime suicidal behavior were considered as censored observations, and the age at the 6th wave of the KOWEPS was recorded as a censoring time. In the survival analysis, we excluded one person who experienced a CA after the occurrence of the lifetime suicidal behavior to guarantee temporal order between CA and suicidal behaviors. The proportional hazard assumption was checked before reporting the results. Data are reported as hazard ratios (HR) with 95% confidence intervals (CI). All analyses were performed using R statistical software.

3. Results

Among the 18,856 participants at baseline, 68.5% (12,925) were retained at the 6th wave. We excluded 1950 who were less than 18 years old and 1770 with missing data. Among 9205 participants included in our analysis, 2840 (30.9%) reported at least one CA experience.

Table 1 presents the distribution of the study population and the prevalence of three types of lifetime suicidal behaviors by sex, age, and each of the childhood SES variables (i.e., education and occupation of each parent). Based on a chi-square test, the prevalences of all three lifetime suicidal behaviors were significantly higher for females, older persons, and people with less-educated mothers.

Parental death during early childhood was significantly associated with lifetime suicidal ideation (HR 1.35, 95% CI: 1.13, 1.61) and attempt (HR 1.60, 95% CI: 1.02, 2.52) but not parental death during adolescence. In contrast, suspension of school due to financial strain was associated with suicidal behaviors if it occurred during adolescence (ideation HR 1.48, 95% CI: 1.22, 1.79) but not if it happened in early childhood. The associations remained significant after additionally adjusting for adulthood SES (i.e., education and income of the respondents) except that the association between early parental death and suicidal attempt was attenuated (HR: 1.43, 95% CI: 0.92, 2.26). Parental divorce and being raised in a relative's house due to financial strain were both related to suicidal behavior regardless of the onset period of the adversity (Table 2).

4. Discussion

To our knowledge, this is the first study to address the relationship of the timing of childhood adversity and adulthood suicidal behaviors. In a sample nationally representative of South Korea, we examined the association between childhood adversities, including those due to financial strain, and lifetime suicidal behaviors after adjusting for childhood and adulthood SES. Suicidal behavior was related to parental death when the parent's death occurred during early childhood. In contrast, school suspension only affected suicidal behavior when it occurred during adolescence. Together with previous ecological studies that examined the association between social integration, especially the divorce rate, and suicide rates in South Korea (Ben Park and Lester,

Download English Version:

<https://daneshyari.com/en/article/6231170>

Download Persian Version:

<https://daneshyari.com/article/6231170>

[Daneshyari.com](https://daneshyari.com)