



A study on the mental health of Japanese university students by the University Personality Inventory

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Abstract

Objective: The University Personality Inventory (UPI) is a mental health instrument for university students, which is still popularly used in Japan. The UPI is a 60-item self-report inventory designed to assess physical and psychological symptoms. The aim of this study was to investigate the mental health of the first-year students.

Methods: A mental health of first-year students of the university was investigated by analyzing the data of UPI for three years (2017-2019).

Results: A total of 3369 students were investigated between 2017 and 2019. The average of UPI score is 7.1 (SD 7.0). The students of this university were relatively in good mental health. However, about 4% of fresh students responded positively to the suicidal ideation item.

Conclusion: The screening test for the university fresh students is crucial and the students consulting service is important to provide the students with mental disorders an opportunity to promote healthy behaviors and life skills.

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Introduction

Suicide is a significant public health problem with increasing worldwide. The risk factors for suicide in adolescents and young adults are male, self-harm, mental illness, substance misuse, bullying, physical and sexual abuse, poor educational attainment and socioeconomic deprivation [1]. Although the prevalence of suicidal thoughts and behaviors is lower in students than non-students [2], there are growing concerns about the mental health and prevention for suicide in university students. Suicide is the first leading cause of death among university students in Japan [3]. Overall suicide rate is 26.0 per 100,000 among Japanese university students in 2017 [3]. Suicide ideation in college students is considered to be an important precursor to

later attempted and completed suicide [4]. Suicide ideation has been associated with poor psychological functioning [5], future depression [5,6], school dropout [6], aggressive behavior [7,8], and adult substance use disorders [9,10]. These studies reflect the importance of mental health intervention and access to psychological counseling for this population.

The University Personality Inventory (UPI) is a mental health instrument for university students, which is still popularly used in Japan. The UPI is a 60-item self-report inventory designed to assess physical and psychological symptoms. The UPI has been used to screen for general mental health problems among Japanese college students since 1967. In addition, the items in the



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UPI assess symptoms from multiple dimensions of mental health such as physical symptoms, cognitive symptoms, emotional vulnerability, social avoidance, and interpersonal sensitivity. The UPI was developed specifically for detecting common mental health problems among college students and is more suitable for mental health assessment in this population [11]. It assesses a wide variety of psychological symptoms and provides universities with a rapid and effective mental health screen [11]. The aim of this study was to report the utility of the UPI as suicide prevention in a Japanese university for recent three years.

Methods

This study used data from the psychological profiles for the full population of first-year university students at a university in Japan. A screening questionnaire, the UPI, was administered during medical examination for first-year students. The UPI is a 60-item self-report inventory designed to assess physical and psychological symptoms.

Students with a UPI total sum score above 30 or those who respond positively to the suicidal ideation item (Have I ever thought of ending my life?) were summoned for the Health Care Center to conduct face to face interviews by a psychiatrist or trained nurses.

Results

A total of 3369 students were investigated between 2017 and 2019. Of these, 2321 (68.9 %) were male and 1048 (31.1%) were female. The median age at the investigation was 19 years old (range 18 to 24) and 2729 (81 %) were aged under 20 years. Characteristics of the students in the sample are presented in Table 1.

The number of students with suicidal ideation ranged 38 to 48. Characteristics of the students with suicidal ideation are shown in Table 2. The UPI total sum scores of the students with suicidal ideation were significantly higher than those of total students. Age and gender of students with suicidal ideation were not significantly different from those of total students each year. The number of students with total sum scores of UPI above 30 ranged 14 to 27. Characteristics of the students with total sum scores of UPI above 30 are shown in Table 3.

Students with a UPI total sum score above 30 or those who respond positively to the suicidal ideation item were summoned for the Health Care Center to conduct face to face interviews. All the students applied two conditions were interviewed by a psychiatrist or four trained nurses (Table 4). One or two students committed suicide per a year in the university, however, there has been no suicide after introducing the UPI into the university.

Table 1: Students gender, age, and UPI total score from 2017 to 2019

year	2017	2018	2019
N	1094	1121	1154
age	19±0.9	19±0.8	19±0.8
male	766	762	783
Score average	7.8±7.4	7.5±7.1	7.0±6.3

Table 2: Comparison of UPI total score of the students who respond positively to the suicidal ideation item

year	2017	2018	2019
N (%)	48 (4.3)	38 (3.4)	47 (4.5)
age	19±0.8	19±0.8	19±0.8
male	27	20	24
Score average	21.2±7.8	21.0±6.4	21.1±6.5

Table 3: Students with UPI total sum score above 30

year	2017	2018	2019
N (%)	14 (1.3)	27 (2.4)	20 (1.7)
Suicidal ideation positive	7	14	14
male	6	10	9
Score average	42.0±8.8	41.2±9.8	39.2±9.0

Table 4: students with UPI total sum score above 30 or suicidal ideation positive

year	2017	2018	2019
N	55	51	53
Interview by psychiatrist	27	26	26
Interview by nurse	28	25	27

Discussion

Our results confirm that the UPI is effective to intervene first-year university students whose mental conditions were not good and prevent suicide attempts.

Suicide is a significant public health problem with increasing worldwide prominence. 9.2 % of the people from a sample of 17 countries had suicidal ideation and one-third had made a suicide attempt [8]. Thus, understanding suicidal ideation is the most critical step towards combating the suicide epidemic. On the other hand, suicidal ideation may have a different etiological mechanism than actualized suicide [12]. Others view suicidal ideation as early progression on the continuum of suicidal behavior, whose culmination in suicide is dependent on a host of interplaying psychological and social factors.

Many suicide prevention programs aim to identify early signs of depression and encourage depression screening and early intervention [13]. However, suicide ideation among university students may have a unique etiology because of developmental transitions that occur in university and young adulthood, including changes in family relationships, peer contexts, and increased opportunities for alcohol and drug use [4,14]. The transition between late adolescence and young adulthood is typically characterized by high levels of stress associated with adjusting to a new social environment and increased academic demands [6]. In addition, adolescence is the peak age of most major mental illness [6] and students moving to university may lose supports from friends and families at home[4,14].

Although not all people with suicidal ideation actualize it, suicidal ideation is a necessary condition of attempted suicide [9,14]. Suicidal ideation is a critical previous signs of suicide attempts and suicides.

Thus, the most crucial practical strategy in suicide prevention for public health scientists is to intervene at the stage of ideation. The UPI is an effective tool for some students with suicidal ideation. In addition, it is important for the universities to provide an opportunity to promote healthy behaviors and life skills that will help students respond to life challenges as well as make a successful transition into employment [15].

As this study was based on data collected at a single institution, the results may not be representative of all college students or young adults.

Future studies are required to verify that the UPI is effective for prevention of suicide in university students.

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