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The Magnitude and Determinants of Emotional-Behavioral Problems in Working Adolescents in Turkey

Dilek Avci[a,*], Kevser Tari Selcuk[a], Serap Kaynak[b]

[a] Bandirma Onyedi Eylul University, Faculty of Health Sciences, Department of Nursing, Bandirma, Balikesir, Turkey
[b] Balikesir University School of Health, Department of Nursing, Balikesir, Turkey

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ABSTRACT

OBJECTIVE: Working adolescents are at a greater risk of mental disorders than are non-working adolescents. The present study was aimed at determining the magnitude and determinants of emotional and behavioral problems in working adolescents.

METHODS: This cross-sectional study was conducted with 343 adolescents attending two vocational training centers in the province of Balikesir between January 2016 and March 2016. The data were collected with the Personal Information Form, and the Strengths and Difficulties Questionnaire. In the analysis, descriptive statistics, the *t*-test, Mann Whitney *U* test and one way ANOVA were used.

RESULTS: In the study of the adolescents, 16.9% were determined to have abnormal emotional and behavioral problems. Of the participating adolescents, girls, those with physical illnesses, living in fragmented families, perceiving their economic status as good, having fathers with primary school education and/or having mothers with high school or higher education had significantly higher emotional and behavioral problem scores ($p < 0.05$).

CONCLUSION: In this study, approximately one-fifth working Turkish adolescents had abnormal mental status. Based on the aforementioned results, it can be suggested to develop intervention programs for the prevention, early diagnosis and treatment of emotional and behavioral problems in working adolescents.

INTRODUCTION

Adolescence is a period of rapid change in physical, emotional, cognitive and social domains. In this stage, it is important for adolescents to be able to adapt to complicated changes they experience and to develop a healthy self-identity (Yorukoglu, 2007). However, adolescents' inadequacy of life skills such as stress coping, conflict resolution, anger management, problem solving and communication makes it difficult for them to adapt to changes and leads to emotional and behavioral problems (Donnelly & Ward, 2015; Meyers, Roozen, & Smith, 2011; Slemming et al., 2010; Tandon, Dariotis, Tucker, & Sonenstein, 2013).

Nowadays, the prevalence of psychiatric disorders in adolescents is reported to be considerably high (Erskine et al., 2015; Insel, 2014; Keane & Loades, 2017; Kessler et al., 2012; Polanczyk et al., 2015; Whiteford et al., 2013). In studies conducted in different cultures, the prevalence of mental disorders in adolescents vary between 8% and 25% (Kessler et al., 2012; Kieling et al., 2011; Merikangas et al., 2010; Polanczyk et al., 2015; Vicente et al., 2012), mental disorders account for 60–70% of the disease burden in adolescents (Merikangas, Nakamura, & Kessler, 2009; Patel, Flisher, Hetrick, & Mcgorry, 2007; Whiteford et al., 2013), and mental health problems diagnosed in adulthood begin in adolescence (Chan, Dennis, & Funk, 2008; Frigerio et al., 2009; Patel et al., 2007). The epidemiological data in Turkey are very limited, and according to the Turkish Mental Health Profile study, the prevalence of clinically diagnosed psychological problems in the 4–18 age group based on parental reports is 11.3% (Erol, Kilic, Ulusoy, Kececi, & Simsek, 1998). In studies conducted with 12–18-year-old adolescents who presented to the Child and Adolescent Psychiatry Clinic, approximately 87% of them were reported to be diagnosed with mental disorders (Durukan et al., 2011; Turkoglu, 2014).

The most common mental problems observed during adolescence are attention deficit hyperactivity disorder (ADHD), behavioral problems such as behavioral disorders, and emotional problems such as depression and anxiety disorder (Chan et al., 2008; Demirkaya et al., 2015; Lim, Chung, & Joung, 2016;Polanczyk et al., 2015; Vicente et al., 2012). The prevalence of mental disorders in this period ranges between 1.7% and 17.8% for ADHD (Polanczyk et al., 2015; Visser et al.,

* Corresponding author at: Bandirma Onyedi Eylul University, Faculty of Health Sciences, Kurtulus Street, 10200 Bandirma, Balikesir, Turkey.
E-mail address: davci@bandirma.edu.tr (D. Avci).

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2013), between 5 and 14% for behavioral disorders (Polanczyk et al., 2015; Vicente et al., 2012), between 2% and 24% for anxiety disorders (Frigerio et al., 2009; Polanczyk et al., 2015; Vicente et al., 2012), and between 0.2% and 17% for depression (Bodur & Kucukkendirci, 2009; Polanczyk et al., 2015; Vicente et al., 2012). Likewise, in Turkey, Turkoglu (2014) reported that of the 12–18-year-old adolescents who presented to the child and adolescent psychiatry clinic, 20.8% were diagnosed with anxiety disorders, 16.6% with ADHD, 15.3% with depression and 6.2% with behavioral disorders.

Although adolescence is reported to be the stage of life during which early symptoms of many psychiatric disorders appear, and positive outcomes can be achieved with appropriate mental health services, only 10–22% of adolescents with mental disability have the opportunity to access treatment facilities (James et al., 2014; Merikangas, 2013). Untreated mental problems lead to inadequacy in performing activities of daily life and social activities, low school achievement, interpersonal problems, substance use and violent behaviors in adolescents (Bos, Huijding, Muris, Vogel, & Biesheuvel, 2010; Chan et al., 2008; Erskine et al., 2015; Frigerio et al., 2009). Therefore, mental evaluation is crucial for the provision of preventive and therapeutic mental health services during adolescence (Olfson, Blanco, Wang, Laje, & Correll, 2014; Townsend, 2015; WHO, 2014).

Working adolescents are in the at-risk group in terms of psychological evaluation (Bandeali et al., 2008; Benvegnu, Fasa, Facchini, Wegman, & Dall'Agnol, 2005). Child/adolescent labor, which leads to the violation of children's right to life, is a global problem in many developing countries. According to the International Labor Organization, those who are between 15 and 18 years of age and have to work in order to contribute to the family budget or to earn their living are defined as young workers (Tor, 2010). According to the results of the 2015 Turkey Children Workforce Survey, the employment rate in the 15–17 age group was 21.0%. Socioeconomic inadequacy, migration, and academic failure are reported to be the most important reasons for adolescents' existence in working life (TSI, 2016). In addition, the main reasons for the use of child labor in our developing country are the fact that twelve-year compulsory education is still very new, that professional standards are not precisely defined and that vocational education cannot keep pace with the present age (Tor, 2010).

That working adolescents not only try to cope with the changes brought about by the present age, but also take on adult responsibility by entering the working life at an early age pushes them away from education and damages their physical, psychological and social development (Benvegnu et al., 2005; Etiler, Caglayan, Yavuz, Hatun, & Hamzaoglu, 2011; McCall, Harwitz, & Carr, 2007). Beginning to work at an early age, difficulties in living conditions and unfavorable conditions in the working environment increase mental problems in adolescents (Bandeali et al., 2008; Ciftci, 2013). Studies conducted on the issue report that emotional and behavioral problems such as anxiety, depression, sleep disturbance, antisocial behaviors and substance use are more common in working adolescents than in non-working adolescents (Bandeali et al., 2008; Benvegnu et al., 2005; Metin, Ozkoc, Ozer, & Baydag, 2008; Sutoluk, Nazlican, Azizoglu, & Akbaba, 2005; Wu, Schlenger, & Galvin, 2003).

That the prevalence of mental problems whose severity varies from mild to very severe is on the increase in adolescents, and that they cannot receive adequate help suggest that related concerns are justifiable (Durukan et al., 2011; Merikangas, 2013; Polanczyk et al., 2015; Turkoglu, 2014), which places significant responsibilities on psychiatric nurses who are in close contact with adolescents (Townsend, 2015; Yilmaz & Turkles, 2015). Identification of psychiatric problems and potential risk factors and taking necessary precautions during adolescence by psychiatric nurses is of importance in terms of preventive mental health. (Townsend, 2015). The Turkish National Mental Health Action Plan aims to ensure that child and adolescent mental health services should cover preventive mental health services which promote health (Erkoc, Com, Torunoglu, Alatas, & Kahilogullari, 2011). However, in Turkey, there is a gap in the literature related to studies on the evaluation of mental problems of working adolescents in the at-risk group for psychiatric disorders focus on only one variable such as anxiety/depression (Canbaz, Sunter, & Peksen, 2005; Metin et al., 2008; Oner, Bugdayci, Sasmaz, Kurt, & Toros, 2004; Sutoluk et al., 2005; Tokuc, Evren, & Ekuklu, 2009). The purpose of this present study is to determine the magnitude and determinants of emotional and behavioral problems in working adolescents. It is expected that the data obtained will contribute to solutions applicable to the problems of working adolescents.

The main research questions of this present study are as follows: 1) What is the prevalence of emotional and behavioral problems in the working adolescents? 2) What are the factors that affect the emotional and behavioral problems in the working adolescents?

METHODS

STUDY DESIGN

This cross-sectional study was conducted between January 2016 and March 2016 in Balikesir. Balikesir is located in the northwest of Turkey and its economy is based on agriculture, farming, and mining.

PARTICIPANTS

The minimum sample size was calculated with the Sample Size Calculator according to the frequency of an event when the population size is unknown (Rosner, 2011). No nationwide and regional study has been conducted to determine the prevalence of emotional-behavioral problems in working adolescent in Turkey. On the other hand, in studies carried out abroad, the rate of emotional-behavioral problems in working adolescent ranges between about 10.0% and 21.0% (Bandeali et al., 2008; Benvegnu et al., 2005). Based on this, the minimum sample size was calculated using the following formula, to be used in the estimation of the mass ratio.

$n = (z_{\alpha/2})^2 P(1\text{-}P)/d^2$

n: Sample size

$z_{\alpha/2}$: According to the two-way hypothesis Z table value

P: Estimated proportion

d: Sampling error (Rosner, 2011).

Based on this formula, the minimum sample size was calculated as $n = 196$ by using $p = 0.15$, $1\text{-}P = 0.85$, $z_{\alpha/2} = 1.96$, $d = 0.05$, and $\beta = 0.80$ for the prevalence of emotional-behavioral problems. In order to achieve the minimum sample size, of the 372 adolescents (299 males, 73 females) who attended in the two vocational training centers in the province of Balikesir between January 2016 and March 2016, and met the inclusion criteria, 343 were included in the study. The inclusion criteria were as follows: being 15–18 year-old, agreeing to participate in the study, no missing data. Fourteen adolescents whose family refused their children to participate in the study were excluded from the study. The exclusion criteria were as follows: having diagnosis of mental disorder, receiving psychiatric treatment.

INSTRUMENT

The data were collected with the Personal Information Form, and the Strengths and Difficulties Questionnaire.

Personal Information Form: The form developed by the researchers through a literature review includes 18 items questioning the participants' socio-demographic characteristics such as age, gender, number of siblings, and their parents' education status, occupation and income level (Bandeali et al., 2008; Benvegnu et al., 2005; Ciftci, 2013; Dastan, 2014).

Strengths and Difficulties Questionnaire: The Turkish validity and reliability study of the Strengths and Difficulties Questionnaire developed by Goodman to screen mental problems in children and