School refusal behavior in South Korean first graders: A prospective observational community-based study

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1 Introduction

School refusal behavior refers to absences from school (periodic or extended) or missed classes, chronic tardiness, fear of attending school, or children asking not to attend school, and this phenomenon encompasses school refusal, school phobia and truancy (Kearney, 2008b).

School refusal behavior affects 5–28% of children and adolescents at some time and is generally seen equally in boys and girls (Kearney, 2007). School refusal behavior is a serious problem, which may cause academic underachievement, disturbances in social development, and a high probability for anxiety symptoms in the short term and possible employment issues and marital problems in the long term (Last and Strauss, 1990; Buitelaar et al., 1994; Naylor et al., 1994; Flkierska-Praquin et al., 1997; Kearney, 2007).

Recently, researchers have posited that the origins and manifestations of school refusal behavior are heterogeneous and multifactorial (Heyne and Sauter, 2013); diverse factors are attributed to the development of school refusal behavior. However, studies in the past commonly classified school refusal behavior as a dichotomous idea: “school refusal (anxious school refusal)” was one option, indicating that children have a fear or anxiety about going to school (Egger et al., 2003); “truancy” was the other option, indicating that they lack interest in school or refuse to go to school in defiance of adult authority (King and Bernstein, 2001). Based on this dichotomous idea, school refusal has been conceptualized as a manifestation of internalizing problems such as anxiety and depressive symptoms; the behavior reaches a peak at the primary school entrance age of 5 to 7 years and at the secondary school entrance age of 11 to 14 years (Sewell, 2008). In contrast, truancy has been conceptualized as a manifestation of externalizing problems, such as delinquent and aggressive behaviors (King and Bernstein, 2001; Egger et al., 2003). Interestingly, although there are recent evidences that show the manifestations of school refusal behavior are heterogeneous, psychological approaches to school refusal behavior tend to focus on internalizing symptoms, thus so many children who develop school refusal behavior are excluded from conceptualization and intervention (Kearney, 2008b).
Separation anxiety symptoms (SAS) have received the most attention by clinicians and educators among different anxiety symptoms related to school refusal (Elliott, 1999; Heyne et al., 2001) because SAS has been considered the most important reason for school refusal. Indeed, the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) has misrepresented the terms “SAD” and “school refusal” as one concept (Last et al., 1992). This belief could be related to the 1960s and 1970s social background when the studies on school refusal behavior and SAD were most actively performed. At that time, many children may have experienced the environment outside the protection of their homes for the first time when they went to school because the kindergarten enrollment ratio was low. However, the kindergarten enrollment ratio has increased steeply and reached about 90% in Korea in 2010, which is an increase of about five times over the early 1980s (Ministry of Public Administration and Security of Korea, 2011). In 2006, most OECD countries showed very high enrollment kindergarten ratios: The United States 90%; Germany 90%; The United Kingdom 100% and The Netherlands 100% (Organization for Economic Cooperation and Development, 2006). Kindergartens have a high probability to act as buffers for separation anxiety, as the kindergarteners might have gone through separation experiences from their attachment figures. Therefore, there is a need to re-perform studies on the relationship between school refusal behavior and SAD in very young children.

It is extremely difficult to know the reasons for the school refusal behavior of young children, such as ‘fist graders’ (Park, 1999) because school refusal behavior occurs in nonspecific patterns, such as multiple somatic complaints, psychomotor agitation, slow school preparation, and aggressive behavior directed against the school, regardless of the child’s reasons for school refusal behavior and embarrassing their parents. Furthermore, there are an insufficient number of recent studies about school refusal behavior in children who are beginning primary school. Therefore, we aimed to: (1) prospectively observe the actual development rate of school refusal behavior in children who had just entered primary school and compare the school refusal behavior rate according to SAS history; (2) compare demographic and clinical characteristics between those who develop school refusal behavior and those who do not; and (3) explore family and child predictive factors for school refusal behavior among children who have just entered primary school. To the best of our knowledge, this is the first study to prospectively investigate the actual development of school refusal behavior in young children in a community. We aimed to provide more objective data concerning school refusal behavior in very young children.

2. Methods

2.1. Participants and procedures

The participants were 302 children (158 boys and 144 girls; age, 6–7 years), expected to enter primary school 2 months later from 34 kindergartens in Seocho-gu, Seoul, South Korea. Seocho-gu encompasses 47 km², has a population of 440,188, and constitutes one of the highest socio-economic status (SES) regions in South Korea. Children attending day care centers for children with developmental disorders or intellectual disabilities and those who were not living with both parents were excluded from the study.

The participants’ parents of the participants completed the surveys, including the Korean Child Behavior Checklist (K-CBCL) (Achenbach and Edelbrock, 1983; Oh and Lee, 1990) and the Parent Stress Index-Short Form (PSI-SF) (Abidin, 1995; Shin and Chung, 1998). We used the DSM-IV-TR criteria for SAD to examine each child’s SAS history. The children were questioned on using the State-Trait Anxiety Inventory—Child version (STAI-C) (Spielberger, 1973; Cho and Choi, 1985). All data was carefully reviewed by a child psychiatrist (M.H.P.).

The baseline data of 23 children who participated in the “school maladaptation prevention program” at the Seocho-gu Mental Health Center were excluded from the baseline statistical analysis in this study, as their participation in the program could influence the occurrence of school refusal behavior. No statistical differences were observed in the clinical characteristics, such as SAS history, or demographic characteristics, such as gender ratio, between those who participated in the program and those who did not. In addition, we excluded data of two children whose parents did not provide their child’s SAS history. Thus, we analyzed pre-school data of 277 children (145 boys, 132 girls) at baseline.

After these 277 children entered primary school, the Seocho-gu Mental Health Center staff called the children’s parents to determine whether their children had met the criteria for school refusal behavior during the 3 months after entering school. Written consent was obtained from each child’s parents, and assent was obtained from each child. This protocol was approved by the Ethics Committee of the Catholic University of Korea.

2.2. Instruments

2.2.1. DSM – IV criteria for separation anxiety symptoms

SAS history was assessed as recalled by the parents according to the DSM-IV criteria. We used the method of Brückl et al. (2007) to define sub-threshold SAS. The interview was administered by a social worker (H.Y.J), and the data were carefully reviewed by a child psychiatrist (M.H.P.). The DSM-IV criteria for SAD assess whether (a) at least three or more out of eight separation anxiety symptoms (e.g. repeated nightmares involving a separation theme) are present to meet the DSM-IV criterion (criterion A); (b) symptom duration of at least 4 weeks (criterion B); (c) symptoms occurred before age 18 years (criterion C); and (d) symptoms caused clinically significant impairment (criterion D). A sub-threshold SAS subject was defined as one falling one criterion short of the full mandatory diagnostic criteria.

2.2.2. Korean Child Behavior Checklist (K-CBCL)

The CBCL was developed by Achenbach and Edelbrock (1983), and assesses the parents’ observations of their children. The K-CBCL has been translated and standardized for use with Korean children (Oh and Lee, 1990). The K-CBCL is divided into two scales: the social competence scale and behavior problem scale. It is comprised of 121 questions, and the results are converted to T-scores. The social competence scale comprises social functioning, academic performance and total social scales. The behavior problem scale consists of externalizing and internalizing problems. The internalizing problem subscale includes withdrawn, somatic complaints, anxious/depressed, social problems, thought problems, and attention problems, delinquent and aggressive behaviors are included in the externalizing problems subscale.

2.2.3. Parent Stress Index-Short Form (PSI-SF)

The PSI-SF was designed by Abidin (1995) and is a self-report questionnaire to identify stress factors recognized by the parents. Each item is scored on a 5-point scale which causes the 30-item short scale, designed by Shin and Chung (1998), which excludes items deemed not suitable for Koreans, or duplicated items from the PSI-SF’s 36. This form has been standardized and validated in the Korean population. Total score ranges from 30 to 150, and a higher score indicates greater parenting stress. If the total score is 91 or over, parenting stress is very high; if it is 86 or over, parenting stress is high; and 71 or over, parenting stress exists.

2.2.4. State-Trait Anxiety Inventory—Child version (STAI-C)

This test comprises of 40 questions: 20 ask about the patient’s present anxiety state (State Anxiety Inventory; SAI) and 20 questions ask about trait anxiety (Trait Anxiety Inventory; TAI, Spielberger, 1973). A score over 41 on the SAI or a score over 39 on the TAI are considered high. This test has been translated and standardized for use with Korean children (Cho and Choi, 1989).

2.2.5. School refusal behavior survey

The school refusal behavior variables were defined in the following manner as described by Egger et al. (2003); regarding the period analyzed, we slightly modified the criteria proposed by Kearney (2003, 2008a). The following four variables were included: school nonattendance (of at least a half-day in duration); staying home in the morning; failing to reach school or leaving school and going home on at least 7 school days during the past 3 months; and/or experiencing difficulty in attending school for at least 2 weeks during the past 3 months, resulting in significant interference with the child’s or the family’s daily life routine.

2.3. Statistical analysis

We conducted the chi-square test (Fisher’s exact test for nonparametric data) and Student’s t-test (Mann-Whitney U tests for nonparametric data) to compare categorical and continuous variables, respectively. In addition, we used logistic regression and analyses of covariance (ANCOVA) for the categorical and continuous variables to adjust for covariates between groups. The statistical significance for all tests was set at p < 0.05. The Bonferroni correction was performed to control for