Article

Stigma and life satisfaction among out-of-school Korean youths: The mediating roles of self-esteem and depression

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Abstract: The purpose of this study was to assess the extent to which self-esteem and depression mediated the influence of internalized stigma on life satisfaction among Korean out-of-school youths. Cross-sectional data on 318 youths provided information on perceived stigma, self-esteem, depression, life satisfaction, and personal characteristics. A multinomial logistic regression analysis was followed by structured path analysis to investigate the mediation effects. Internalized stigma was negatively associated with life satisfaction. Self-esteem significantly mediated the influence of stigma on depression and the influence of depression on life satisfaction. Further, stigma directly and significantly influenced depression. This study demonstrated that self-esteem and depression were important to the relationship between internalized stigma and life satisfaction. Implications for possible policies and programs with the aim of helping out-of-school youths to integrate and lead successful satisfying lives are discussed.

Keywords: life satisfaction; depression; self-esteem; stigma; out of school youth; structural equation modeling

1. Introduction

According to UNESCO, about 258 million children and adolescents in the world are not attending school in 2018 [1]. Some of these young people never get the chance to go to school at all; others leave early (‘drop out’). There is a vast literature discussing stigma, depression and other phenomena as reasons leading to dropping out of school. Very little research has been conducted, however, on stigma and depression as consequences of leaving school early, especially within the framework drawn up in the title of this study, therefore fully applicable references are very hard to come by. Analogies with existing research can be drawn only with the utmost caution. ‘Early school leavers’ refer to people aged 18 to 24 years who leave formal education/training without attaining secondary qualification or equivalent. One of the great disadvantages of early school leaving is that it has become a marker for social exclusion. Ameliorating the situation is now a national priority in many countries with the key goal of reducing the number of dropouts to less than 10% of all students [2].

Under Korean law, “out-of-school youth” are eligible youths not attending any school between the ages of 15 and 24 years [3]. Korean compulsory education encompasses six years of primary and three years of lower secondary school. Korean policy to reduce school dropout will include upper secondary levels by 2021 [4]. In 2017, Korea’s school dropout rates of elementary, middle, and high school were 0.7%, 0.7%, and 1.6%, respectively. The rate positively correlated with age, and it consistently increased over the past five years [5]. In one study, some of the reasons the youths gave for dropping out of school were “Did not need to finish school for chosen career” (39.4%), “Did not like to study” (23.8%), and “Physical and mental health problems” (17.8%), indicating that mental health was a reason for school dropout for about one-sixth of the subjects [6].
Research has compared dropouts and graduates and found that they differed with respect to depressive symptoms and life satisfaction [7]. In a Western setting, these differences, with adequate family and peer support, can be transitory. In South Korea, owing to societal characteristics, the adverse effects are usually more lasting. Adolescents who leave early tend to have relatively greater risks of a wide range of problems, such as poor overall health and wellbeing, high stress, depressive symptoms, and specific health challenges (e.g., insufficient nutrition, delayed physical development, dental caries, substance abuse, no involvement in physical activity for health and wellbeing, alcohol use, tobacco use, sexually transmitted diseases, and pregnancy [8,10]. (A sign of the subsequent dropping out can be absenteeism, as early as in kindergarten [9].) Previous studies found that youth who did not graduate high school were more likely than graduates to experience depression, and they were less satisfied with their lives and reported higher levels of psychological distress than high school graduates [7]. This can lead to stigma, similar to that of mental patients [11]. High school dropouts experienced more aggressiveness, insomnia, suicidal thoughts or attempts, and low self-esteem during the transition from student to adult status because they were unprepared for social entry and were relatively challenged by their families’ and communities’ expectations and responsibilities [12].

**Stigma** is a way to degrade individuals’ identities [24] characterized by exclusion or devaluation based on negative judgments [25]. Stigma is a social condition in which perceived characteristics are used to separate individuals who have those characteristics from the group. Being a “dropout” is a characteristic of an early leaver and it is used to distinguish those individuals (stigmatize them) and separate or exclude them from group membership. Stigma might psychosocially, physically, and mentally burden marginalized individuals (including school dropouts) by aggravating their health and wellbeing and by increasing their psycho-emotional stress and challenges accessing healthcare services [26]. In Korea, about 98% of young adults have an upper secondary qualification [5]. In Korea’s Confucian culture, which highly values education, strong social pressure is on those who lack degrees and they are considered under-qualified for almost every occupation [27]. Thus, stigma on out-of-school youths might manifest as overt discrimination based on judgments that they are defective. The lack of alternative educational pathways for out-of-school youths and the policy focus on formal education and development exacerbates the internal stigma on dropping out of school [28].

Youths sometimes are stigmatized and discriminated against by their peers because they are unusual in some way, such as obese, pregnant, HIV positive, sexual minority, mentally ill, or they are early leavers [13–17]. Almost one-half (47%) of out-of-school youths in Korea felt stigmatized in their relationships with peers, family members, and neighbors, which led to the loss of friendships and unwarranted assumptions, distrust, pity, avoidance, and underestimation of their abilities [6]. During the transition to adulthood, out-of-school youth, seemed to be less prepared to be adults than those who are in school, and their environmental and psychological vulnerabilities tend to put them at risk. Dropping out of school influences dropouts’ health and wellbeing and creates public health problems [17].

Out-of-school youths have reported feeling stigmatized as culturally deviant which means departing from the accepted standards, especially in social behaviors. Also they are stereotyped unintelligent, unskilled, and/or maladjusted, and they tend to be unemployed or involved in crime because they dropped out of school [29]. Previous studies found that stigma negatively influenced individuals’ health as well as their societal opportunities, such as educational opportunities, employment, and housing, and it interfered with an appropriate transition to adulthood [30,31]. In a nationally representative sample of African American and Caribbean Black youth, internalized stigma negatively related to self-esteem and life satisfaction [32].

**Life satisfaction** is the way people feel about themselves in their lives, and it often is considered a protective factor against negative life events and an indicator of adolescents’ psychological and social development [18]. Korean youths’ average life satisfaction score in 2016 was 6.6 (out of 10), which was lower than the OECD average of 7.6 [19]. Life satisfaction is multi-dimensional, and, among other things, it embodies health, socioeconomic status, stressful events and conditions, social relationships, depression, and self-esteem [20]. Among adolescents, it tends to positively relate to
self-esteem, whereas depression and stress negatively relate to it [21]. Some recent research suggested that major changes, such as parental divorce, or family problems, such as parental alcoholism, influenced life satisfaction, although it has been found to be resilient. Because dropping out of school is a major change, it might have an influence on life satisfaction. Therefore, life satisfaction of out-of-school youths and the factors related to it are public health concerns even though Korea’s dropout rate is lower than in Western countries. Although the population of dropouts is small, the stigma, social isolation, and psycho-emotional problems they tend to experience [22] likely have negative psychological and socioeconomic influences on these youths during their adult lives [23], therefore they should not be ignored.

Based on the large worldwide literature on school dropouts, the likelihood of dropping out depends on multiple individual, family, school, peer, and societal factors. About 45.2% of the past decade’s published literature on out-of-school adolescents in Korea focused on revealing the risk factors, 33.9% of the studies considered interventions to prevent it, and 4.8% focused on career development after the fact [33]. One previous study found that adult life satisfaction and depression among those who had been out-of-school youths was mediated by the extents of depression and life satisfaction when or shortly after they dropped out [7]. However, the life satisfaction of out-of-school youth has been under-researched because of the challenges involved in finding subjects and, when found, obtaining data from them after they leave school [33].

The relationships among stigma, self-esteem, depression, and life satisfaction have been well documented as associated with dropping out of school and developmental outcomes [7,32,34,35]. However, the influence of a sense of (or perceived) stigma on health outcomes needs further attention regarding out-of-school youths in Korea. The moderating effect of self-esteem on the relationship between depression and life satisfaction also should be investigated [34] in a Korean context. Knowledge about the reasons for dropping out might be important to educational policy and practice in Korea, and multidisciplinary efforts should be made to reduce the health problems related to dropping out of school. Investigating the life satisfaction of out-of-school youths, particularly those who perceive a stigma, might support those efforts. This study aimed to add to knowledge by investigating the influences of stigma, self-esteem, and depression on life satisfaction in a sample of out-of-school Korean youths and to ascertain whether self-esteem or depression mediated the relationship between stigma and life satisfaction.

2. Materials and Methods

2.1. Participants

This study’s objectives were met using data derived from the 2017 Out of School Youth Survey (OSYS). The OSYS used a prospective panel design, and the National Youth Policy Institute (NYPI) annually obtained similar samples surveyed through the multi-youth center [6]. The NYPI conducted a cross-sectional survey with in-person interviews and self-report questionnaires based on the Act on the Support for Out-of-School Youth pursuant to Article 49 (4) of the Framework Act on Juveniles. The OSYS encompasses seven domains: educational disruption, life experiences, psychological and emotional characteristics, parental and peer relationships, everyday life and values, health risk behaviors, and socio-demographic characteristics. The informed written consent of the participants was obtained. The NYPI agreed to this study’s use of the data on 318 out-of-school youths aged 18 to 24 years who dropped out of school after 2013 (they had been out of school for less than one through four years). The university institutional review board approved this study (No. 201910-0007-01).

2.2. Measures

2.2.1. Dependent variable

A three-item Life Satisfaction index was used to measure life satisfaction. The response options were on a four-point scale where 1 = very dissatisfied through 4 = very satisfied [36]. Higher scores
indicated higher life satisfaction, and Cronbach’s internal reliability coefficient in the sample was \( \alpha = .789 \).

2.2.2. Key independent variables

The eight items of the Stigmatization Scale-Short (revised from the Stigmatization Scale) have been a valid and reliable instrument for measuring stigma within minority groups [37]. Higher scores indicated perceptions of more stigma. Cronbach’s internal reliability coefficient in the sample was \( \alpha = .874 \).

This study’s self-esteem index was adapted from the 10-item Rosenberg Self-Esteem Scale [38]. The Korean short version uses five items with response options on a four-point Likert-type scale where 1 = strongly disagree through 4 = strongly agree. Higher scores indicate higher levels of self-esteem. Cronbach’s internal reliability coefficient in the sample was \( \alpha = .870 \).

The Korean version of the Beck Depression Inventory [39] was used to measure depression. The 10 items’ response options were on a four-point scale where 1 = strongly disagree through 4 = strongly agree [40], higher scores indicated more depressive symptoms, and Cronbach’s internal reliability coefficient in the sample was \( \alpha = .905 \).

2.2.3. Other independent variables

The analysis also included measures of psychological and emotional factors obtained from the participants’ self-reports, and clinical records were used to collect information on age, sex, employment, and living arrangements. Family-level financial status was measured by responses to the question, “Do you think your family has sufficient money to cover your family expenses?” The response options were 1 = very insufficient through 7 = very sufficient. Self-rated health was an overall measure using the responses to the following question: “How would you describe your general state of health?” The response options were 1 = very unhealthy through 4 = very healthy.

2.3. Statistical Analysis

First, the study variables were analyzed using means and standard deviations or frequencies and percentages, depending on the variable. All statistical tests were performed using two-tailed tests of significance with a cut-off significance level of \( p < 0.05 \). Then, a hierarchical logistic regression analysis was performed to test the effects of stigma, self-esteem, and depression on life satisfaction. In Model 1, the influences of the six control variables (age, sex, employment, living arrangement, family-level financial status, and self-rated health) were estimated. Stigma, self-esteem, and depression were added in Model 2.

Third, path analysis and structural equation modeling was used to estimate the relationships among stigma, self-esteem, depression, and life satisfaction as follows: (1) the direct relationship between stigma and depression and between depression and life satisfaction, (2) the indirect relationships between stigma and self-esteem and between self-esteem and depression, and (3) the overall direct and the separate indirect effects of stigma on life satisfaction through self-esteem and through depression. One thousand bootstrap samples were analyzed using a 95% Confidence Interval. The three goodness-of-fit indices were the Comparative Fit Index (CFI), Goodness-of-Fit statistic (GFI), and Normed Fit Index (NFI). CFI, GFI, and NFI values of 0.90 or larger were used to indicate an adequate model fit [41]. All statistical analyses were performed using SPSS 23.0 (SPSS Inc., Chicago, IL, USA), except for the structural equation modeling, which was performed in AMOS 21.0 (SPSS Inc., Chicago, IL, USA).

3. Results

Table 1 presents the descriptive statistics of all the study variables. The mean age was 20.67, and there were more males than females (52.5% v. 47.5%). About 56.9% reported holding a part-time job, and about 70.1% were living with their parents. More than 40% of the sample reported neither insufficient nor sufficient family finances, and about three-quarters of the sample reported either
good or very good health. The variance inflation factor index was 1.017–1.378, multicollinearity was not identified, the Durbin-Watson test value was 1.99, and no autocorrelation existed between independent variables.

Table 1. Descriptive statistics of the study variables (n = 318).

<table>
<thead>
<tr>
<th>Variable</th>
<th>n (%)</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>20.67 (1.12)</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>167 (52.5)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>151 (47.5)</td>
<td></td>
</tr>
<tr>
<td>Part-time job</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>181 (56.9)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>137 (43.1)</td>
<td></td>
</tr>
<tr>
<td>Living with parents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>223 (70.1)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>95 (29.9)</td>
<td></td>
</tr>
<tr>
<td>Family-level financial status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very insufficient</td>
<td>10 (3.1)</td>
<td></td>
</tr>
<tr>
<td>Moderately insufficient</td>
<td>41 (12.9)</td>
<td></td>
</tr>
<tr>
<td>Slightly insufficient</td>
<td>71 (22.3)</td>
<td></td>
</tr>
<tr>
<td>Neutral</td>
<td>134 (42.1)</td>
<td></td>
</tr>
<tr>
<td>Slightly sufficient</td>
<td>45 (14.2)</td>
<td></td>
</tr>
<tr>
<td>Moderately sufficient</td>
<td>17 (5.3)</td>
<td></td>
</tr>
<tr>
<td>Very sufficient</td>
<td>0 (0.1)</td>
<td></td>
</tr>
<tr>
<td>Self-rated health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very poor</td>
<td>13 (4.1)</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>66 (20.8)</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>195 (61.3)</td>
<td></td>
</tr>
<tr>
<td>Very good</td>
<td>44 (13.8)</td>
<td></td>
</tr>
<tr>
<td>Life satisfaction (range: 3–12)</td>
<td>7.77 (1.82)</td>
<td></td>
</tr>
<tr>
<td>Stigma (range: <strong>–</strong>)</td>
<td>15.87 (3.59)</td>
<td></td>
</tr>
<tr>
<td>Self-esteem (range: 5–20)</td>
<td>14.84 (2.51)</td>
<td></td>
</tr>
<tr>
<td>Depression (range: 10–40)</td>
<td>18.84 (5.22)</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows the results of the hierarchical logistic regression analysis estimating the effects of the control variables (Model 1) and the effects of stigma, self-esteem, and depression on life satisfaction net of the effects of the control variables (Model 2). In Model 1, family-level financial status and self-rated health positively related to life satisfaction. In Model 2, the influence of family-level financial status was weakened, but it remained statistically significant. However, the effect of self-rated health was weakened to non-significance. In addition, stigma and depression negatively related to life satisfaction, indicating that the higher the scores on these two variables, the lower the life satisfaction. Self-esteem had a positive influence on life satisfaction, which was the strongest coefficient in the model. Model 1 explained about 25.8% of the variance in life satisfaction, which increased to 55.8% in Model 2.

Table 2. Results of hierarchical logistic regression analysis of the relationship of stigma, self-esteem, and depression on life satisfaction (n = 318).

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t-value</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>-0.043</td>
<td>-0.869</td>
<td>-0.034</td>
<td>0.893</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.069</td>
<td>-1.388</td>
<td>-0.054</td>
<td>-1.423</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Family financial status 0.321 6.296** 0.167 4.132***
Self-rated health 0.307 6.032** 0.081 1.896
Part-time job 0.059 1.193 0.034 0.886
(1 = ___, 0 = ___)
Living arrangements -0.024 -0.488 -0.047 -1.241
(1 = ___, 0 = ___)
Stigma -0.112 2.767*
Self-esteem 0.466 11.542***
Depression -0.38 -8.641***
$R^2$ Adjusted $R^2$ .258 .313
$F$ for change in $R^2$ 17.880*** 74.161***

* = $p < .05$, ** = $p < .01$, *** = $p < .001$.

All the Chi-squared tests were statistically significant ($p < 0.001$), and the other fit indices were adequate (GFI = 0.906, CFI = 0.916, and NFI = 0.901). The path model results indicated that self-esteem significantly mediated the relationship between stigma and depression (confirmed by 1000 bootstrapped samples), and stigma directly and significantly related to depression ($\beta = 0.89, p < .05$) and to life satisfaction ($\beta = -0.253, p < .01$). Last, depression had a significant negative relationship to life satisfaction (Table 3).

### Table 3. Direct and indirect effects of social stigma on life satisfaction using 1000 bootstraps.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent variable</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Stigma</td>
<td>.258***</td>
<td>.89*</td>
<td>.347***</td>
</tr>
<tr>
<td></td>
<td>Self-esteem</td>
<td>-.488***</td>
<td></td>
<td>-.488***</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>Stigma</td>
<td>-.182***</td>
<td></td>
<td>-.182***</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>Depression</td>
<td>-.728***</td>
<td></td>
<td>-.728***</td>
</tr>
<tr>
<td></td>
<td>Stigma</td>
<td>-.253**</td>
<td></td>
<td>-.253**</td>
</tr>
<tr>
<td></td>
<td>Self-esteem</td>
<td>.355**</td>
<td></td>
<td>.355**</td>
</tr>
</tbody>
</table>

* = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Figure 1 illustrates the structural path model relationships among the key study variables. Self-esteem and depression were expected to mediate the relationship between stigma and life satisfaction. The results found a saturated model, all the estimates were statistically significant, and the relationships were in the anticipated directions. The path from stigma to depression indicated that depression increased as perceived stigma increased, and the path from depression to life satisfaction was the strongest of the three predictors.

![Figure 1](path_analysis.png)

**Figure 1.** Path analysis results among stigma, self-esteem, depression, and life satisfaction.

### 4. Discussion
To the best of my knowledge, this was the first nationally representative study on Korean out-of-school youth to examine the relationships among stigma, self-esteem, depression, and life satisfaction with a focus on the mediating effects of self-esteem and depression. The results particularly increase our knowledge about stigma’s influence in the lives of these youths. The results were similar to findings of negative effects of stigma on life satisfaction among American adolescents who were obese, HIV positive, mentally ill, or sexual minorities [30], American racial minority youth [32], and Turkish adolescents, which also found self-esteem positively and depression negatively influenced life satisfaction [34]. Previous studies also reported that the effect of stigma diminished when the influence of self-esteem on life satisfaction was considered [42, 43]. Our findings support a study on Korean college students [44] and the influence of stigma on depression in the current study also supports results on vulnerable Singaporean youth [13]. The current analysis revealed that stigma directly and indirectly influenced depression, similar to a previous finding on self-stigma [45], and a previous study in Turkey reported self-esteem was a partial moderator of the relationship between depression and life satisfaction [34]. Apparently, self-esteem might moderate or mediate the influence of perceived stigma on depression. If that applies as well to out-of-school youth in Korea, perceived stigma might lower self-esteem, lead to depressive symptoms, and degrade life satisfaction.

One study of Korean adolescents found that those who attended alternative schools had significantly lower self-esteem and higher perceived stigma than adolescents attending regular high schools [46]. Because the expectation and priority of education are high, dropping out tends to be interpreted as leaving the competitive path to success. Out-of-school (including alternative school) youths might feel socially devalued, which might lower their self-esteem, increase their depression, and, consequently, might lower their life satisfaction. Youths who perceive stigma might avoid dropping out of school, particularly those who want employment, and the failure to gain employment might exacerbate depression [47]. Further, out-of-school youths who perceive stigma might disengage from their communities and curtail or stop their youth center activity to avoid people they believe will consider them failures. Community and youth center disengagement have been linked to exclusion and alienation from social supports, such as counseling, training, and employment advice [6].

The findings imply that, although out-of-school youths might be relatively depressed and dissatisfied during adolescence, they are capable of rebounding if multiple efforts are made to lessen the sense of stigma, enhance self-esteem, and treat depression to improve life satisfaction. A review of multi-level stigma interventions (interpersonal, organizational, and structural) found they were relatively effective for stigma reduction and that they were more synergistic and more holistic than single-level interventions [26]. The targeted multiple interventions among healthcare professionals, family members, and community members using various strategies (e.g., contact, social marketing, counseling, faith, problem solving) were more effective than educational programs alone for reducing the sense of stigma. A meta-analysis of 52 self-esteem enhancement programs for children found a large overall effect of 0.892, which was particularly large among the programs using music, painting, and other arts (1.29–1.72) [48]. Regarding Korean middle school children, an experimental group participating in 10 group sessions to treat high depression found that depression and self-esteem were significantly higher than in the control group [49]. Thus, depression screening and counseling of out-of-school youths should help to improve their mental health and life satisfaction. Considering the evaluations of interventions and programs as a whole suggests that the younger the participants, the more effective the intervention for self-esteem, although programs with more than 10 sessions negatively related to self-esteem. Therefore, intervention programs to increase self-esteem and reduce depressive symptoms need to be appropriately developed to meet the developmental needs of children at specific ages.

Despite its contributions, this study has limitations to consider when interpreting the results. First, the participants were recruited by convenience sampling because of difficulties identifying or locating out-of-school youths, which created an unknown extent of selection bias that precluded the generalizability of the findings. The cross-sectional study design eliminated the possibility of drawing causal inferences about the relationships among the study variables. However, the
moderating influences of self-esteem and depression in this study suggest that longitudinal research might shed light on the causal effect of stigma on life satisfaction and the mediating effects of self-esteem and depression.

5. Conclusions

In conclusion, this study contributes to the literature about the life satisfaction of out-of-school Korean youths by identifying self-esteem and depression as mediators of the relationship between stigma and life satisfaction. Improving self-esteem emerged as a possible way to decrease the perceived stigma’s influence on depression and to increase life satisfaction. More research and policy attention should monitor the mental health of out-of-school youth and develop interventions to reduce perceived stigma with the ultimate goal of decreasing depression, increasing self-esteem, and improving life satisfaction for those adolescents. The study’s results have implications for multi-level support programs among community, employment, educational, and public health actors and for early interventions to protect out-of-school youths from developing a sense of stigma. Discrimination and social exclusion might be addressed by raising public awareness about out-of-school youths. However, dropping out of school strongly determines adult outcomes and future inequities in educational attainment, employment, health, and life expectancy, and keeping children in school should be a broad policy priority.

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References

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References

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44. Kim, J.W.; Han, D.H.; Lee, Y.S.; Min, K.J.; Park, J.Y.; Lee, K. The Effect of Depression, Anxiety, Self-Esteem, Temperament, and Character on Life Satisfaction in College Students. *J Korean Neuropsychiatr Assoc* 2013, 52, 150-156. doi:


