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Values and Wellness as Related to a Positive School Orientation Among Japanese Adolescents

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Over the last 20 years, the rate of school absenteeism in Japan has shown a gradual but persistent increase, with approximately 3% of middle school students and 1% of elementary school students in Japan missing more than 30 days of school per year (Japanese Ministry of Education, Culture, Sports, Science, and Technology [MEXT], 2010). Because a high school diploma is considered a prerequisite for secure and respectable employment (Fujioka, 2005), the issue of school absence has become one of the greatest educational concerns in Japan.

Traditionally, school absence has been viewed from a deficit perspective, meaning that the problem was considered to stem from within the student (e.g., Fujioka, 2005; Nabeta, 2002). The resulting intervention efforts (e.g., alternative classroom placement, individual counseling) have been effective in helping students return to school (Fujoka, 2005), but have done little to address the ongoing rise of school absence. It is insufficient to approach this issue only after it has become a significant problem (Kobayashi, 2003); instead, fostering positive youth development may help buffer against the initial onset of school absence. From this perspective, promoting students’ optimal psychological functioning may help maintain or increase school attendance and overall engagement in their education. This study examined the relationship between a positive school orientation (e.g., attendance, school bonding) and positive psychological attitudes (i.e., values and wellness) among Japanese middle school students.

There are a number psychological and behavioral difficulties that are thought to contribute to school absenteeism among Japanese students. One common explanation is that students are attempting to avoid frustration or are experiencing separation anxiety (Fujioka, 2005; Nabeta, 2002). These students have been characterized as emotionally immature and lacking frustration tolerance. Alternatively, school absenteeism has been attributed to antisocial behaviors and a lack of value for the school curriculum (Fujioka, 2005; Koizumi, 1990). In a relatively small number of cases, school absenteeism...
may occur because of developmental and severe mental disorders (Fujioka, 2005; Machizawa, 2001). A sociocultural explanation of “burn-out of a good student” has also been advanced (Fujioka, 2005; Machizawa, 2001; Yoneyama, 2000). This phenomenon is not uncommon among upper level students and is thought to be related to the intense competition for the best high schools and colleges in Japan.

During their middle school years, many students are not only enrolled in regular school, but also attend parallel academic institutions. These accelerated schools, sometimes referred to as “cram-schools” (Juku or Yobiko), provide supplementary classes aimed at successful preparation for the entrance examination to high school or college (Horio & Sabouret, 1990). According to Fujioka (2005), a typical case of burn-out of a good student occurs when a student who was successful in elementary school cannot adjust to life in middle school. The secondary school environment is much larger, with a greater number of students and a substantially more difficult curriculum. Students may have difficulty keeping up with parental expectations and begin to worry about their academic success. In Japan, being a good student includes both academic performance and development of positive relationships with all teachers and friends. Negative experiences at school can threaten the identity that students have built based on their parents’ values and create a sense of failure.

In Japan’s collectivist society, identity tends to be defined in the context of one’s relationships with others. Individuals fit themselves into relationships and find their role in a group by meeting obligations and fulfilling others’ needs (Markus & Kitayama, 1991). People are expected to conform to social norms and to alter their own needs in order to maintain social harmony. The expression of personal feelings is often considered socially inappropriate because it may cause conflict (Fujioka, 2005). As a result, Japanese students try hard to keep up with the expectations of others. If students are not able to adapt, they may lose ego-strength and self-confidence, and become discouraged about going to school (Fujioka, 2005).

Alternatively, others have proposed the idea that absenteeism among Japanese students is related to confusion in cultural values. Over the last 25 years in Japan, there has been a decreasing emphasis on dedicating oneself to society (Morita, 1994) and many people may be conflicted by the co-existing values of individualism and groupism (Fujioka, 2005; Honma, 2000; Kobayashi, 2003). For example, students who have worked hard to conform to collectivistic values may decide to stop attending school, despite the expectations of others, when they begin to feel “burned out” (Yoneyama, 2000). Consequently, conflict between internalized cultural values and newly adopted individual values may overwhelm students’ personal resources (e.g., coping skills, social relationships) to impact school attendance. Therefore, developing better insight into student values and other intrapersonal factors may allow school personnel to increase student resiliency and help them to successfully...
navigate the middle and high school years.

Applied positive psychology focuses on increasing the optimal psychological functioning of individuals and groups in order to help them achieve their goals (Linley & Joseph, 2004). Under this framework, positive subjective experiences (e.g., happiness, life satisfaction), individual traits (e.g., values, character), relationships (e.g., friendships), and institutions and groups (e.g., families, schools, and communities) are considered fundamental to psychological well-being (Park & Peterson, 2008). Among Japanese middle school students, more positive events at school were related to higher levels of perceived life satisfaction (Yoshitake, 2010). Therefore, rather than focusing on correcting deficits, more effort toward enhancing positive experiences at school may present an alternative approach for improving school attendance.

Central to positive psychology is the construct of subjective well-being (SWB) which refers to a positive evaluation that people make about their lives (Diener, 2000), and is often measured by perceived life satisfaction (e.g., Oishi, Diener, Lucas, & Suh, 1999). Numerous positive outcomes are associated with life satisfaction including student achievement and engagement in school (Park & Peterson, 2008; Suldo, Shaffer, & Riley, 2008). Good character, defined as a set of strengths that are morally valued, also contributes to an individual’s sense of well-being (Park, 2004; Weissberg & Greenberg, 1997). Values serve as motivational goals that individuals use to guide decisions about their behaviors (Schwartz, 1996). As noted, among Japanese adolescents, both individual and cultural values may play an important role in school attendance.

Attainment of valued goals can lead to a sense of happiness and satisfaction (Diener, Oishi, & Lucas, 2003). According to Schwartz (1992), there are ten universal human values that can be grouped into four dimensions: self-enhancement (achievement and power), openness to change (self-direction, stimulation, and hedonism), conservation (security, conformity, and tradition) and self-transcendence (benevolence and universalism). (See Schwartz, 1992 for a full description of these dimensions and values). Judgments about value priorities are influenced by human nature, social functioning, life circumstances, and life stage (Schwartz, 2005). For example, in an Israeli adolescent sample (Melech as cited in Schwartz, 2005), the values of conformity and tradition decreased in importance and self-direction values increased as participants progressed from age 10 to 17 years old, mirroring the developmental process of increasing autonomy among adolescents. Gender also appears to play a consistent role in the perceived importance of different values. In their research across multiple cultural groups, Schwartz and Rubel (2005) found benevolence, universalism, and security to be consistently valued more highly by females than by males; while power, stimulation, achievement, hedonism, and self-direction were considered more important by males. Among Japanese young adults, females placed greater value on benevolence and security; males valued stimulation,
hedonism and power more than females (Schwartz & Rubel, 2005).

Wellness also contributes to a sense of subjective well-being and has been conceptualized as “the psychological capacity to cope with demands arising across time, circumstance, and setting” (Lorion, 2000, p. 15). The proposed characteristics of wellness are complex and consist of both internal and external affective, cognitive, and social components that correlate with positive outcomes in life. Although not mutually exclusive, these characteristics often include empathy (Eisenberg, 2005), emotional self-regulation (Saarni, 1999), social bonding (e.g., Austin, Saklofske, & Egan, 2005), self-efficacy (e.g., DeWitz & Walsh, 2002), initiative (Larson, 2000), optimism (Palmer, Donaldson, & Stough, 2002), social competence (Catarano, Berblund, Ryan, Lonczak, & Hawkins, 2004), conscientiousness (Conard, 2004), resiliency and adaptability (e.g., Bridges, 2003), and mindfulness (e.g., Baylis, 2004). While the relationship between psychological wellness and academic achievement has been established among American students (e.g., Suldo et al., 2008), less is known about the relationship between wellness and school success among Japanese adolescents. Studies of life satisfaction suggest that there are important differences in this construct across age, gender, and nationality (Japan Youth Research Institute, 2006; Park & Peterson, 2005).

Since youth spend the majority of their time in a school setting, it is important to consider how values and wellness contribute to positive school engagement. There are different terms used to describe aspects of students’ engagement or sense of belonging to the school setting. Positive school orientation is an overarching construct that considers both behavioral and psychological aspects of students’ school engagement. Behavioral components of a positive school orientation may include regular attendance and participation in extracurricular activities. The term school bonding is sometimes used to reflect students’ affective engagement and refers to their attachment or involvement in school life (Finn & Zimmer, 2012). Both the behavioral and affective aspects of attendance are important to consider because some students may attend school but not be engaged (Honma, 2000). Furthermore, when students do not experience a sense of attachment, or bonding to school, they may express their dissatisfaction through absenteeism.

Based on this brief review, both values and wellness appear to play an important role in students’ academic achievement and engagement in school. The purpose of this study was to determine the relationship between the positive psychological attitudes of wellness and universal human values (i.e., Openness to Change, Conservation, Self-Enhancement and Self-Transcendence), and a positive school orientation (i.e., school attendance, participation in extracurricular activities, and school bonding) among Japanese middle school students. By developing a better understanding of the factors that contribute to greater levels of school engagement among Japanese students, efforts to reduce school absenteeism may begin to focus on developing positive interventions that optimize
student health and behavior rather than continuing to emphasize a deficit perspective.

Methodology

Participants

All students in 7th and 8th grade in one middle school in a suburban city in Japan were invited to participate in this study. On the day selected by the school principal for administration of the instruments, 347 students were enrolled in these two grades and 322 students completed the surveys. Three of these students did not report Japanese ethnicity and were excluded from the study. The final participant sample of 319 students represented 92% of the total population. A convenience sampling method based on accessibility was used in the selection of the city, school, and sample population. This city is considered to be a typical Japanese city in terms of its industry, population, and demographic makeup. Furthermore, this middle school and its students were chosen as the population of interest because they were considered to be representative of typical middle school students in Japan. Because of the somewhat homogeneous characteristics of the population in Japan, socioeconomic status was not considered. The sample included 162 males (51%) and 157 females who ranged in age between 12 and 15 years old, with 95% reporting their ages as 13 or 14 years old.

Measures

Participants provided basic demographic information such as their grade level, gender, and ethnicity as well as their rate of absenteeism and participation in extracurricular activities. Absenteeism was defined as the number of days of complete absences and the number of early-leave and late-arrival days during the present semester (spanning approximately 100 days). The number of self-reported hours and days of participation in school extracurricular activities per week was also collected. Attendance rates, participation in extracurricular activities, and student responses to the Psychological Sense of School Membership (PSSM; Goodenow, 1993) were considered to be a set of indicators related to positive school orientation. Students also completed the Portrait Values Questionnaire (PVQ; Schwartz, 2000) and the Child and Adolescent Wellness Survey (CAWS; Copeland & Nelson, 2004).

Psychological Sense of School Membership (PSSM). A translated version of the PSSM (Goodenow, 1993) was used to measure students’ perceived sense of belonging to school. The 18 items are presented on a scale ranging from “Not at all true” (1 point) to “Completely true” (5 points). The PSSM includes five negative items which are reverse scored. A total score is obtained by calculating the average score of all items with higher scores indicating a more positive sense of belonging. The internal consistency reliability of the scores on the scale was .88 based on the responses of a sample of 454 suburban middle school students (Goodenow, 1993). In another study with 240 American middle and high school students, the internal consistency reliability of the scores ranged from .71 to .94 depending on grade level, and test-retest reliability over 4 weeks was .78 (Hagborg, 1994). Scores on the PSSM have been found
moderately related to life satisfaction \((r = .54, p < .001)\) and academic grades \((r = .40, p < .001)\), and negatively correlated with school absence \((r = -.18, p < .001)\) and tardiness \((r = -.14, p < .01)\) among middle school students (Goodenow, 1993; Hagborg, 1994). The Cronbach’s alpha of the PSSM total score for the sample in this study was .85.

**Portrait Values Questionnaire (PVQ).** The PVQ (Schwartz, 2000) is an adaptation of the Schwartz’s Value Survey (SVS; Schwartz, 1992) which is a measure of one of the leading theories of human values. Schwartz (2005) recommended using the PVQ with adolescents because the portraits are provided in more concrete terms than in the original measure. Both the SVS and PVQ were developed by Schwartz and share the same theoretical underpinnings of ten universal human values: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security. The value structure for the SVS was derived from Maslow’s five needs theory and other previous work in values (e.g., Bandura, 1977; Deci, 1975; Maslow, 1970). These ten values can be grouped into four broad value dimensions: self-enhancement, conservation, openness to change, and self-transcendence. The four-value model is the recommended structure for younger participants. Based on previous research (Melech as cited in Schwartz, 2005), individuals developed a clear sense of the four-value structure by age 10 and the ten-value structure gradually emerged by age 16.

The PVQ consists of 40 items that are presented as statements about an individual (e.g., “Being creative is important to him.”). Participants are asked to choose one of six options ranging from “Very much like me” to “Not like me at all.” The four value dimensions are measured by seven to eleven items each (Schwartz, 2005). The PVQ has male and female versions that use the same statements but incorporate gender specific language. Scores on this instrument have demonstrated adequate to good internal consistency across adolescents from seven countries with mean internal consistency reliabilities ranging from .47 to .80 (Schwartz, 2005). Stability of the PVQ scores with a sample of 811 German high school students over a 9-month period ranged from .58 to .68 (Bardi, Lee, Hofmann-Towfigh, & Soutar, 2009). Schwartz (2005) described the PVQ as having a good internal reliabilities and convergence with the SVS.

The Japanese version of the PVQ, developed in 2004, was obtained through the author (S. H. Schwartz, personal communication, December 6, 2006). For the current study, minor modifications were made by simplifying the language so that younger adolescents could understand the items more easily. For the current sample, the Cronbach’s alpha for each of the four PVQ domain scores were: self-enhancement (.82), openness to change (.81), conservation (.83), and self-transcendence (.88), indicating strong internal consistency.

**Child and Adolescent Wellness Scale (CAWS).** The CAWS (Copeland & Nelson, 2004) consists of 150 items and was designed to assess 10 dimensions associated with psychological health:
adaptability, connectedness, conscientiousness, emotional self-regulation, empathy, initiative, mindfulness, optimism, self-efficacy, and social competence. The CAWS employs a Likert-type response scale that provides options ranging from “Not at all like me/strongly disagree” (scored 1 point) to “Very much like me/strongly agree” (4 points). Thirty items are negative and reverse scored. A mean score for each dimension is calculated.

The CAWS is in development and thus far the following data have been collected for its standardization. Based on a study of 281 American students in Grades 6 to 12, the internal consistency reliabilities of the CAWS dimension scores ranged from .75 to .86, indicating adequate to strong internal consistency (Copeland, Nelson, Traughber, & Molina, 2004). The overall coefficient alpha was .97. An exploratory factor analysis supported an overall wellness factor rather than 10 independent dimensions. However, the total score on the CAWS correlated strongly \( r = .72 \) with students’ life satisfaction as measured by the Multidimensional Student Life Satisfaction Scale (MSLSS; Huebner, 2001) suggesting the concurrent validity of the CAWS. A subsequent study of 538 Korean adolescents indicated internal consistency reliabilities that ranged from .61 to .75 (Nelson et al., 2007).

For the current study, a modified Japanese translation of the CAWS was used. Based on data collected in a pilot study with Japanese middle and high school students \( (N=177) \) by the first and third author, the instrument was shortened by removing items that had the lowest correlation with each dimensional mean score. In the adapted CAWS, there were 100 items and each dimension had 10 items. Subsequent analysis of the scores on this instrument revealed higher reliability coefficients for seven out of ten dimension as compared to the Japanese translation of the original version of the CAWS (Copeland et al., 2004), and the overall coefficient alpha remained unchanged \( (\alpha = .97) \). With these revisions, five of the ten proposed dimensions were collapsed into two factors with corresponding Cronbach alphas of: empathy and connectedness (.89), and self-efficacy, adaptability, and initiative (.89). The other five dimensions remained unchanged: conscientiousness (.90), social competence (.82), optimism (.77), emotional self-regulation (.74) and mindfulness (.80).

**Procedure**

Permission to translate the instruments was obtained from the authors of the PSSM and the CAWS. The original English version of both instruments was translated into Japanese by the first author of the current study and then back-translated into English by a bilingual graduate student using a common method described by Hambleton and Bollwark (1991). Two Japanese teachers reviewed each item to ensure age-appropriate language and questions were used.

University institutional review board (IRB) approval and permission from a school representative were obtained prior to data collection. In accordance with research guidelines in Japan, teachers sent letters to the parents of participants indicating the general nature of the study, confidential safeguards, and the voluntary nature of participation. All questionnaires were
given to participants on the same school day and were completed in approximately 45-50 minutes. Those who consented to participate in the research completed the questionnaires in the following order: demographic questionnaire, PSSM, CAWS, and PVQ. Because of the relatively short administration time, the order of instruments was not varied.

Results

Validity of Scores

Two confirmatory factor analyses (CFA) were conducted to establish the construct validity of inferences based on scores from the PSSM and PVQ with this sample. For the PSSM, an item parceling procedure was used (Bandalos & Finney, 2001). Parcels were created by aggregating items based on the results of item-total correlation analyses in order to increase the ratio of the number of parameters in the CFA to the sample size. The nine parcels were considered relatively normal (kurtosis between -0.37 and 1.42; skewness between -0.33 and 0.67) (Kline, 2005). All but two parcels (kurtosis = 1.14 and 1.42) were within the recommended normality range of -1 to +1 (Huck, 2012), and a value of 1.42 on kurtosis was not considered extremely non-normal. A one-factor CFA of the PSSM with nine parcels was conducted in LISREL 8.8 using standard Maximum Likelihood estimation (ML) which is considered relatively robust against the non-normality of scores (Kline, 2005). The standard likelihood ratio chi-squared for this model showed a good fit, $\chi^2 (27, N = 308) = 41.57, p < .05$. The CFA showed a .95 or higher value on the Normed Fit Index (NFI; Bentler & Bonnet, 1980), Non-Normed Fit Index (NNFI; Bentler & Bonnet, 1980), and Comparative Fit Index (CFI; Bentler, 1990), suggesting a reasonable fit for the model (a cutoff value for adequate fit is .95 or higher). In terms of Root-Mean-Square Error of Approximation (RMSEA; Steiger, 1990), the 9-parcel model demonstrated a reasonable fit (i.e., .044) where a value of .08 or lower suggests a reasonable fit (Kline, 2005).

A four-factor CFA of the PVQ was conducted along the four dimensions (e.g., self-enhancement, conservation) using 12 item parcels. Each factor corresponded to one of the four domains and each factor had three parcels. The 12 parcels were considered relatively normal (kurtosis between -0.59 and 0.57; skewness between -0.47 and 0.08). This model fit well, $\chi^2 (48, N = 293) = 122.11, p > .01$, and all fit indices (NFI = .97, NNFI = .98, CFI = .98, RMSEA = .07) showed a reasonable fit.

An exploratory factor analysis (EFA) was conducted on the scores of the CAWS because this instrument is still in development and previous research with a U.S. sample had not supported the 10-factor structure. Further, the translated version of the CAWS was reduced from 150 to 100 items based on the results of a pilot study with Japanese students. Therefore, an initial EFA was conducted to determine factorial validity for Japanese middle and high school students using a combined sample ($N = 499: N = 322$ from the present study and $N = 177$ from the pilot study). Factor loadings or pattern coefficients of less than 0.30 were not considered salient and were ignored. Scree plots and parallel analyses...
indicated 6- to 8-factor solutions. After examining all three solutions, the 7-factor solution, which explained 39.57% of variance, was considered to be the most interpretable and robust for this Japanese sample. After the seven factors were identified in the EFA, subscale scores were obtained by averaging all of the item scores within each factor.  

**Data Analysis**

Total sample and gender means and standard deviations appear in Table 1. As recommended by Schwartz (personal communication, December 6, 2006), centered scores for each of the four dimensions on the PVQ were obtained. These are calculated by subtracting the raw scores from the overall mean of the 40 items before calculating the mean scores for each dimension. Centered scores were used in the MANOVA and the correlation analyses; raw scores were used in the confirmatory factor analyses and the canonical correlation analyses. The estimated mean number of school absences during a 5-month period was 2.56 days. Student participants reported an average of 5.2 days and 12.72 hours per week involved in extracurricular activities.

Prior to conducting statistical analyses, the data were analyzed to evaluate the underlying assumptions for each test. The results of this examination indicated a violation of normality on the variable of school attendance. A square root transformation was attempted. However, the results of MANOVA did not change significantly when using the transformed versus untransformed variable; therefore, non-transformed data were used because transformed data are more difficult to interpret (Tabachnick & Fidell, 2001). Results of evaluation of assumptions of equality of covariance matrices, linearity, and multicollinearity were satisfactory. Table 2 shows the bivariate correlations between the three dependent variables.

Because many bivariate correlations were conducted, an adjusted alpha level of .0005 was used in the present study. Surprisingly, none of the positive school orientation indicators showed a significant correlation to one another as might be expected given previous research (e.g., Goodenow, 1993). However, it is possible that because there was so little variation in school attendance (i.e., approximately 70% of students had missed fewer than four days), no relationship could be determined. These results also may have occurred because school bonding reflects an internal construct while school attendance and participation in extracurricular activities measure external behaviors. Scores on the PSSM showed a significant, moderate correlation with all of the CAWS subscale scores. None of the seven factor scores of the CAWS showed a significant correlation with school attendance or hours of participation in extracurricular activities. Also, none of the four PVQ dimensions showed a significant relationship with any of the positive school orientation indicators. Furthermore, each of the seven CAWS scores was significantly correlated to all the other CAWS scores. Each of the four PVQ scores showed a significant correlation to at least one CAWS score. After a preliminary analysis of extracurricular activity participation by days and by hours, a decision was made
Table 1
Gender and Total Means and Standard Deviations on the CAWS, PVQ, and Positive School Orientation Indicators Including the PSSM

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>CAWS (Scale 1 to 4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy &amp; Social</td>
<td>2.97</td>
<td>.50</td>
<td>3.10</td>
</tr>
<tr>
<td>Connectedness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy,</td>
<td>2.64</td>
<td>.53</td>
<td>2.52</td>
</tr>
<tr>
<td>Adaptability, &amp;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>2.82</td>
<td>.56</td>
<td>2.78</td>
</tr>
<tr>
<td>Social Competence</td>
<td>2.45</td>
<td>.54</td>
<td>2.47</td>
</tr>
<tr>
<td>Optimism</td>
<td>2.75</td>
<td>.59</td>
<td>2.66</td>
</tr>
<tr>
<td>Emotional Self-Regulation</td>
<td>2.67</td>
<td>.54</td>
<td>2.64</td>
</tr>
<tr>
<td>Mindfulness</td>
<td>3.00</td>
<td>.51</td>
<td>3.00</td>
</tr>
<tr>
<td>PVQ (Scale 1 to 6)</td>
<td></td>
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<td></td>
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<tr>
<td>Self-Enhancement</td>
<td>3.53</td>
<td>1.12</td>
<td>3.19</td>
</tr>
<tr>
<td>Openness to Change</td>
<td>3.87</td>
<td>.90</td>
<td>3.78</td>
</tr>
<tr>
<td>Conservation</td>
<td>3.45</td>
<td>.89</td>
<td>3.30</td>
</tr>
<tr>
<td>Self-Transcendence</td>
<td>3.70</td>
<td>1.05</td>
<td>3.82</td>
</tr>
<tr>
<td>(Centered Score)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Enhancement</td>
<td>-.10</td>
<td>.69</td>
<td>-.35</td>
</tr>
<tr>
<td>Openness to Change</td>
<td>.24</td>
<td>.48</td>
<td>.26</td>
</tr>
<tr>
<td>Conservation</td>
<td>-.18</td>
<td>.39</td>
<td>-.23</td>
</tr>
<tr>
<td>Self-Transcendence</td>
<td>.05</td>
<td>.51</td>
<td>.28</td>
</tr>
<tr>
<td>Positive School Orientation Indicators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSSM (Scale 1 to 5)</td>
<td>3.09</td>
<td>.55</td>
<td>3.21</td>
</tr>
<tr>
<td>Days of School Absence</td>
<td>2.78</td>
<td>4.98</td>
<td>2.30</td>
</tr>
<tr>
<td>EC Activity Hours</td>
<td>12.06</td>
<td>6.27</td>
<td>13.46</td>
</tr>
</tbody>
</table>

Note. CAWS = Child and Adolescent Wellness Scale; PVQ = Portrait Value Inventory; PSSM = Perceived Sense of School Membership.

to exclude the number of days participating per week as these data were not normally distributed. Therefore, hours of participation in extracurricular activities was considered a more accurate indicator and used in all subsequent analyses. A MANOVA was conducted with the gender mean scores on the three positive school orientation variables (i.e., school attendance, hours of participation in extracurricular activities, and PSSM) using an alpha level of .05. Results did not show significant gender differences on these three variables, $F (3, 239) = 1.418, p = .238$, Wilk’s lamda = .983, eta-squared effect size = .017, which is considered to be small (Cohen, 1988).
### Table 2
Bivariate Correlation Analysis of Positive School Orientation Indicators, CAWS, and PVQ

<table>
<thead>
<tr>
<th>Positive School Orientation</th>
<th>CAWS</th>
<th>PVQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. EC Activity Hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. School Attendance</td>
<td>.08</td>
<td>1.00</td>
</tr>
<tr>
<td>3. PSSM</td>
<td>.13</td>
<td>.14</td>
</tr>
<tr>
<td>4. CAWS: EM &amp; CN</td>
<td>.17</td>
<td>.07</td>
</tr>
<tr>
<td>5. CAWS: SE, AD, &amp; IN</td>
<td>.09</td>
<td>-.04</td>
</tr>
<tr>
<td>6. CAWS: CS</td>
<td>.13</td>
<td>.09</td>
</tr>
<tr>
<td>7. CAWS: SC</td>
<td>.15</td>
<td>.10</td>
</tr>
<tr>
<td>8. CAWS: OP</td>
<td>.16</td>
<td>.15</td>
</tr>
<tr>
<td>9. CAWS: SR</td>
<td>.17</td>
<td>.08</td>
</tr>
<tr>
<td>10. CAWS: MD</td>
<td>.16</td>
<td>.05</td>
</tr>
<tr>
<td>11. PVQ: SE</td>
<td>.07</td>
<td>-.11</td>
</tr>
<tr>
<td>12. PVQ: OC</td>
<td>.04</td>
<td>.04</td>
</tr>
<tr>
<td>13. PVQ: CV</td>
<td>-.19</td>
<td>-.01</td>
</tr>
<tr>
<td>14. PVQ: ST</td>
<td>.05</td>
<td>.06</td>
</tr>
</tbody>
</table>

**Note.** EC = Extracurricular; PSSM = Perceived Sense of School Membership; CAWS = Child and Adolescent Wellness Scale; EM = Empathy; CN = Connectedness; SE = Self-Efficacy; AD = Adaptability; IN = Initiative; CS = Conscientiousness; SC = Social Competence; OP = Optimism; SR = Emotional Self-Regulation; MD = Mindfulness; PVQ = Portrait Values Questionnaire; SE = Self-Enhancement; OC = Openness to Change; CV = Conservation; ST = Self-Transcendence.

**Bonferroni-adjusted alpha, p < .0001**
A MANOVA across gender on the seven factor scores of the CAWS and the four dimensions of the PVQ centered scores indicated a statistically significant difference between males and females on the combined dependent variables: $F(11, 281) = 4.809, p < .001$, Wilk’s lambda = .842, eta-squared effect size = .158, a medium effect size (Cohen, 1988). In the follow-up analysis, a descriptive discriminant function analysis was conducted. As the author of the PVQ recommended (Schwartz, 2000), this discriminant analysis included the four dimension raw scores rather than the centered scores. A discriminant function was calculated, $\chi^2 (11) = 50.48, p < .001$, Wilk’s lamda = .838, and indicated that the best predictors for distinguishing the two gender groups were optimism, self-enhancement, and social competence. Based on the means presented in Table 1, it appears that males rated themselves higher on optimism and self-enhancement ($M = 2.74, SD = .58; M = 3.54, SD = 1.13$, respectively) than did females ($M = 2.61, SD = .51; M = .3.12, SD = .81$, respectively). The social competence variable was more difficult to interpret. Although it appeared to significantly discriminate between gender groups, the mean scores were almost identical (2.446 for males, 2.452 for females).

A canonical correlation analysis was performed between the set of variables related to positive school orientation and the set of variables related to wellness and values to determine whether there was a significant degree of relationship between them. Wellness and values were analyzed together because of the conceptual and statistical relationship between these variables and because they were likely to influence each other as related to positive school orientation. A canonical variate is a form of latent variable based on a linear combination of measured variables on each side of the equation. A canonical correlation analysis recombines and weighs the variables on both sides so that the canonical variates, or the sets of measured variables, correlate with each other as highly as possible (Harris, 2001; Tabachnick & Fidell, 2001). Canonical correlation, also called canonical loading or a structure coefficient, shows how each measured variable is correlated to the corresponding canonical variates, and the canonical correlation coefficient is a standardized weight, similar to a standardized beta weight in multiple regression or to structure coefficients in factor analyses (Harlow, 2005, Sherry & Henson, 2005).

Because the positive school orientation variable set included three variables, three canonical correlations were calculated and tested. With all three canonical correlations included, $\chi^2 (33, N = 229) = 166.73, p < .001$, indicating there was significant overlap between the variance in positive school orientation and the variance in positive psychological traits. This means that there was at least one reliable relationship between the two sets of variables. With the first canonical correlation removed, $\chi^2 (20, N = 229) = 31.82, p = .045$, suggesting that there was another significant relationship between the two sets of variables. Subsequent chi-squared tests were not statistically significant indicating there was no other reliable overlap. Therefore, the first two pairs of canonical
correlations accounted for the significant relationships between the two sets of variables. The first canonical correlation was .68 (46% overlapping variance), the second was .29 (9% overlapping variance), and the remaining canonical correlation was effectively zero.

The correlations between the two canonical variates with corresponding variables (structure coefficients) were obtained to determine the meaningfulness of the canonical variates, using a cutoff correlation of .3 ($\alpha > .3$). The results of canonical correlation analyses appear in Table 3. The first pair of canonical variates indicated that lower school bonding (-.98) and less participation in extracurricular activities (-.31) were associated with less psychological wellness including all CAWS factors (from -.44 to -.77) and lower PVQ self-transcendence (-.32). This first canonical correlation may reflect a “mental health and emotional attachment” dimension of the relationship among positive school orientation, wellness, and values. The results of the first canonical correlation primarily reflected overlap that was driven by the relationship between school bonding and all of the CAWS dimensions.

The second canonical variate suggested that a combination of less participation in extracurricular activities (-.91) but more school attendance (.32) was associated with lower ratings of self-enhancement (-.63), emotional self-regulation (-.41), openness to change (-.36), self-transcendence (-.33), empathy and social connectedness (-.34), and self-efficacy, adaptability and initiative (-.34). The second canonical correlation may reflect a “motivation for achievement” dimension of the relationship between positive school orientation and wellness and values. These results reflected the relationship between participation in extracurricular activities and self-enhancement and emotional self-regulation.

Redundancy coefficients were also obtained to examine the degree of cross-loading of canonical variates to variables in the other variate. A high redundancy value (.3 or greater) is ideal (Harlow, 2005). The total redundancy coefficient in the first canonical correlation was .30. The total redundancy coefficient in the second canonical correlation was .04. The total percentage of variance (66%) and total redundancy of 30% suggested that the first pair of canonical variates was moderately related. The second pair had a total percentage of variance of 42% and total redundancy of 3.5% indicating that the second pair of canonical variates was only minimally related.

Finally, in order to examine gender differences in the relationship between positive school orientation and wellness and values, two canonical correlations were separately performed by gender groups. Data on the first pair of canonical variates for males and females appear in Table 3. The first canonical correlation was .69 (48% overlapping variance) for males and .75 (55% overlapping variance) for females. The remaining canonical correlations were effectively zero. With all three canonical correlations included, $\chi^2 (33, N = 130) = 103.51$, $p < .001$ for males and $\chi^2 (33, N = 99) = 92.06$, $p < .001$ for females. Subsequent chi-squared tests were not statistically significant. Thus, for both
### Table 3
Correlation and Standardized Canonical Correlation Coefficients between Positive School Orientation and Wellness and Values

<table>
<thead>
<tr>
<th>Positive School Orientation Variable Set</th>
<th>All Students</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Bonding (PSSM)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>-0.98</td>
<td>-0.95</td>
<td>-0.99</td>
</tr>
<tr>
<td>First Canonical Variate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Canonical Variate</td>
<td>0.14</td>
<td>0.23</td>
<td>0.23</td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>-0.94</td>
<td>-0.9</td>
<td>-0.96</td>
</tr>
<tr>
<td>EC Activity Hours</td>
<td>-0.31</td>
<td>-0.45</td>
<td>-0.15</td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>-0.18</td>
<td>-0.3</td>
<td>-0.06</td>
</tr>
<tr>
<td>First Canonical Variate</td>
<td>-0.91</td>
<td>-0.95</td>
<td>-0.06</td>
</tr>
<tr>
<td>School Attendance</td>
<td>-0.22</td>
<td>-0.18</td>
<td>-0.1</td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>-0.09</td>
<td>-0.08</td>
<td>-0.1</td>
</tr>
<tr>
<td>First Canonical Variate</td>
<td>0.32</td>
<td>0.32</td>
<td></td>
</tr>
<tr>
<td>Wellness and Values Variable Set</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy and Social Connectedness</td>
<td>-0.77</td>
<td>-0.77</td>
<td>-0.69</td>
</tr>
<tr>
<td>Self-efficacy, Adaptability, and Initiative</td>
<td>-0.39</td>
<td>-0.16</td>
<td>-0.4</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-0.65</td>
<td>-0.72</td>
<td>-0.56</td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>-0.12</td>
<td>-0.43</td>
<td>0.25</td>
</tr>
<tr>
<td>Social Competence</td>
<td>-0.73</td>
<td>-0.81</td>
<td>-0.52</td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>-0.45</td>
<td>-0.51</td>
<td>-0.27</td>
</tr>
<tr>
<td>Optimism</td>
<td>-0.73</td>
<td>-0.72</td>
<td>-0.43</td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>-0.33</td>
<td>-0.28</td>
<td></td>
</tr>
<tr>
<td>Emotional Self-Regulation</td>
<td>-0.45</td>
<td>-0.72</td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
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<td>0.13</td>
<td></td>
</tr>
<tr>
<td>Mindfulness</td>
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<td>-0.68</td>
<td></td>
</tr>
<tr>
<td>Self-Enhancement</td>
<td>-0.08</td>
<td>-0.14</td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
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<td>-0.06</td>
<td></td>
</tr>
<tr>
<td>Openness to Change</td>
<td>-0.26</td>
<td>-0.26</td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>0.11</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td>Conservation</td>
<td>-0.1</td>
<td>-0.14</td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>0.15</td>
<td>0.23</td>
<td></td>
</tr>
<tr>
<td>Self-Transcendence</td>
<td>-0.32</td>
<td>-0.33</td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>-0.02</td>
<td>-0.21</td>
<td></td>
</tr>
</tbody>
</table>
males and females, the first pair of canonical variates accounted for the significant relationships between the two sets of variables.

For males, the total percentage of variance .69 (48%) and total redundancy .33 (11%) suggested that the first pair of canonical variates was moderately related. Using a cutoff correlation of .3, the first pair of canonical variates indicated that lower school bonding (-.95) and lower extracurricular activity hours (-.45) were associated with less psychological wellness (all CAWS variables ranged from -.81 to -.43) and lower self-transcendence (-.33). For females, the first canonical correlation was .62 (38.6%) and total redundancy equaled .34 (11.4% overlapping variance). The first pair of canonical variates indicated that lower school bonding (-.99) and less school attendance (-.33) were associated with less psychological wellness including all CAWS variables except emotional self-regulation (from -.77 to -.31) and a lower openness to change (-.31).

The relationships among positive school orientation and wellness and values appeared to be slightly different between males and females. School bonding was an important component in the relationship between positive school orientation and wellness and values for both males and females. For males, participation in extracurricular activities seemed to play a more meaningful role than for females. On the other hand, for females, school attendance appeared to be an important indicator of a positive school orientation. Gender differences on the PVQ value dimensions were present in that self-transcendence appeared as a component of positive school orientation for males but not females. Openness to change was important to females but not for males.

**Discussion**

Among Japanese youth, a strong relationship exists between a sense of school bonding and different dimensions of wellness. Empathy and social connectedness, social competence, optimism, mindfulness, and conscientiousness were most strongly related to students’ perceived belonging to their school. This combination of wellness factors might be considered to represent aspects of “social” (e.g., empathy and social connectedness, social competence) and “cognitive” (e.g., optimism, mindfulness) wellness. Together, they reflect those components of wellness that are most important to relationships with others and a sense of belonging. Thus, the school bonding aspect of a positive school orientation and the social and cognitive components of wellness seemed to be related to each other, representing an “interpersonal relationship and emotional attachment” dimension.

Previous research has supported the important connection between social behaviors and school bonding. Students who are able to build strong peer relationships tend to have more positive experiences in their schools settings (Catarano et al., 2004; Goodenow & Grady, 1993). The cognitive aspects of wellness (optimism, mindfulness, and conscientiousness) may reflect students’ attitudes or beliefs as related to a positive school orientation. An attitude
of optimism seems to contribute to a sense of feeling connected to one’s school. This finding was consistent with the early work of Koizumi (1995) who reported that optimism was related to adjustment and general interest in school life among Japanese students. More recently, Yoshitake, Matsumoto, Murohashi, Furusho, and Sugawara (2012) found optimism to be important to life satisfaction among Japanese adolescents. Further, both mindfulness and conscientiousness have been associated with better school attendance as well as greater learning, attention, and academic performance (Chamorro-Premuzic & Furnham, 2008; Conard, 2004; Genovese, 2006).

When this relationship was examined by gender, interesting differences emerged. For both males and females, school bonding was most important to a positive school orientation and was positively related to all of the wellness variables. Of the four wellness variables with the highest loadings, three were consistent between males and females (social competence, empathy and social connectedness, and optimism). Conscientiousness appeared to be more important to males, and for females, mindfulness was more strongly related to a positive school orientation.

For males, school bonding and participation in extracurricular activities were significantly related to wellness and values and seemed to be the most important component of a positive school orientation. Participation in group activities and team sports may fulfill many important needs for male students such as establishing dominance in their peer relationships (Benenson, 1999; Schwartz & Rubel, 2005) and allowing them opportunities to build social competence such as learning to cooperate, negotiating conflict, and increasing emotional self-regulation (Dowarkin, Larson, & Hansen, 2003). In contrast, school bonding and school attendance were components of a positive school orientation for females, while participation in extracurricular activities did not seem to play an important role. For females, opportunities for affiliation and developing peer relationships may be best met through unstructured activities (Benenson, 1999).

In terms of values, openness to change for females and self-transcendence for males were related to a positive school orientation. Generally, openness to change tends to be more highly valued by males than females, and self-transcendence tends to be more highly valued by females (Schwartz & Rubel, 2005). For the current population, females who endorsed a less open attitude toward new experiences also had lower levels of school bonding. Similarly, males who expressed less interest in the welfare of people at school reported less school bonding. Both of these values are intrinsically oriented (Schwartz, 2005), suggesting that efforts to motivate students for positive outcomes (e.g., learning from new experiences, finding strength through affiliation with others) may be an avenue for further exploration in order to increase positive school orientation.

The relationship between individual values and positive school orientation was less clear. Participants’ values were related to participation in extracurricular activities but not school attendance or...
bonding. Although the relationship was not as robust, participation in extracurricular activities was associated with the value of self-enhancement and the wellness variable of emotional self-regulation. This second broad dimension identified through canonical correlations was titled “motivation for achievement.” Three of the four value dimensions were related to participation in extracurricular activities: self-enhancement, openness to change, and self-transcendence, with self-enhancement demonstrating the strongest relationship. Voluntary participation in certain activities may be a better reflection of an individual’s values than mandatory actions such as school attendance. These extracurricular activities may represent students’ efforts to enhance their abilities (e.g., sports club) or to meet different needs (e.g., challenging one’s skills, building relationships).

Contrary to expectations, there was not a significant positive relationship among the three positive school orientation indicators used in this study. These indicators represent different aspects of student engagement with school (e.g., attitudes vs. behaviors) and may operate separately for Japanese youth. That is, Japanese students may attend school regularly because of a strong sense of morality regardless of their sense of belonging (Honma, 2000). In fact, school attendance showed a negative contribution to the motivation toward achievement dimension. A possible explanation for this finding may be that some Japanese students who place a high value on academic achievement may believe that learning in a private institution or through other activities will be more beneficial for their future success than attending public school. For Japanese students, internal measures of school attachment may represent a more robust indicator of their school engagement than external behaviors (e.g., attendance).

The present study had important limitations. Although the instruments demonstrated reliability with this population, the constructs measured by the instruments may not have been appropriate due to a lack of functional equivalence (Allen & Walsh, 1999). That is, some of the factors may have had different meanings or functions across American and Japanese cultures. For example, studies among U.S. samples have suggested the importance of self-regulation to school success (e.g., Saarni, 1999), but this relationship was unexpectedly weak for the current sample. It is possible that emotional regulation does not operate in the same manner for Japanese students and a very high score in emotional self-regulation might actually indicate that the student is focusing too much on regulating his or her emotional expression, while failing to manage internal emotional experiences (as in the case of burn-out of a good student).

Additionally, self-efficacy in a collectivistic society is group-directed rather than self-directed, and individuals are expected to make personal contributions to group achievement (Bandura, 1997; Klassen, 2004). Some of the items used in the present study may have been too strongly based on individual achievement-oriented concepts of initiative and self-efficacy (e.g., “I envision what I want, and make a plan on how to get it”). Items with the emphasis on group achievement or...
benefit rather than individual interest may be more representative of self-efficacy in this population. In Japan, a society where social harmony is emphasized, school environments may tend to provide fewer opportunities for the demonstration of initiative and individual decision-making than in the United States where self-expression is emphasized (Weisz, Rothbaum, & Blackburn, 1984). Therefore, cultural considerations need to be taken into account in future research related to wellness and values, as well as positive school orientation.

Another limitation of this study was the lack of significant relationship between any of the positive school orientation indicators. As noted, there was little variance in the school attendance data with most students missing very few days (<4 days). It is also important to note that participants reported their own school attendance, and it is not possible to know whether they provided accurate estimates. Regardless, it is impossible to draw the conclusion that enhancing school bonding would result in higher rates of school attendance. Future research might focus on alternative methods of collecting attendance data and using a longitudinal research design to track the effect of school bonding on attendance.

The present study indicated that a meaningful relationship exists between a positive school orientation and wellness and values. Students’ perceived wellness seemed to consistently relate to a sense of school bonding, but not necessarily attendance or participation in extracurricular activities. Nevertheless, efforts to promote wellness and a sense of value among students may represent an important avenue for enhancing a positive school orientation. Schools may help to motivate students by creating more opportunities for students to achieve their goals through affiliations with peers and participation in extracurricular activities. When the school culture is supportive, students’ sense of connectedness increases (Bar & Higgins-D Alessandro, 2007). By advancing our knowledge about the positive attributes of youth that relate to school bonding, we may be able to promote students’ mental health and increase their emotional and educational outcomes.

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Positive School Orientation in Japanese Students

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