The Effects of Authoritative Paternal-Maternal Parenting Styles on Career Decision Self-Efficacy of Gen Z Adolescents: Thinking Styles as Mediators

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This non-experimental quantitative study examines the effects of parenting styles and thinking styles in career decision self-efficacy (CDSE) of gen Z adolescents. CDSE which refers to an individual’s ability to successfully make important career-related decisions. CDSE is strongly influenced by two factors: parenting styles and thinking styles. The subjects consisted of 617 gen Z adolescents (11th and 12th grades) from three leading schools in Jakarta, Indonesia. The measuring instruments were used to measure CDSE (Career Decision Self-Efficacy) Scale – Short Form, parenting styles (the Parental Authority Questionnaire), and thinking styles (the Thinking Styles Inventory - Revised II). Based on the findings, CDSE was significantly influenced by the authoritative paternal and maternal parenting styles as well as the Type I, Type II, and Type III thinking styles. Moreover, the mediation analysis found that the thinking style variables mediated the relationship between the authoritative paternal and maternal parenting styles and CDSE.

**Key words:** Career Decision Self-efficacy, Authoritative Parenting Styles, Thinking Styles, Gen Z, Adolescents.

**Introduction**

Previous studies have shown that many students experience confusion and indecision regarding their career development (Albion & Fogarty, 2002; Julien, 1999). In general, graduating high school seniors are confronted with personal decisions that have a significant
impact on their future (Situmorang, 2018, 2019; Situmorang, Mulawarman, & Wibowo, 2018). Such decisions are usually between entering the workforce and continuing on to higher education. In Indonesia, career indecision is prevalent among high school students (Sawitri, 2009; Sawitri & Creed, 2015; Sawitri, Creed, & Zimmer-Gembeck, 2015; Situmorang, 2019), which has not only caused stress, but also unnecessary delays and, in some cases, avoidance. Conversely, success in determining a career can lead to increased self-esteem, improved well-being, and greater career satisfaction (Creed, Patton, & Prideaux, 2006; Kunnen, Sappa, van Geert, & Bonica, 2008; Situmorang, 2019; Situmorang & Salim, 2020; Vignoli, Croity-Belz, Chapeland, De Fillipis, & Garcia, 2005).

Career indecision among gen Z high school students is primarily based on their level of career decision self-efficacy (CDSE), which is an individual’s belief that he/she can successfully make career-related decisions (Betz, Klein, & Taylor, 1996). According to Lewis (1981, in Gati & Saka, 2001), if the level of CDSE is low, then, one’s career indecision will be high. Overall, CDSE includes the following categories: self-appraisal, occupational information, goal selection, planning, and problem solving (Betz, Klein, & Taylor, 1996; Taylor & Betz, 1983). Numerous variables related to career indecision have been found, and these include perfectionism, self-consciousness, fear of commitment, anxiety, rational decision-making, and career decision self-efficacy (Guay, Senecal, Gauthier, & Fernet, 2003).

Moreover, in both Western and Eastern cultures, it was found that CDSE is strongly influenced by authoritative parenting styles (Lau & Power, 2019; Pinquart & Gerke, 2019). Fouad et al. (2010, in Sovet & Metz, 2014) affirmed that the family affects one’s career-related decisions through the provision of information as well as emotional and financial support. Based on previous studies on the social cognitive career theory, CDSE plays a key role in career planning and development (Gushue & Whitson, 2006; Lent et al., 2001, 2003, 2005). Thus, the first hypothesis is as follows: H1: CDSE is strongly influenced by authoritative parenting styles.

Although parenting styles have been shown to influence CDSE, the findings have been inconsistent (Lease & Dahlbeck, 2009; Trusty, 1998, in Sovet & Metz, 2014; Vignoli et al., 2005). For example, gender differences were found between the three types of parenting styles and the CDSE of a sample of Greek teenagers (Koumoundourou, Tsaousis, & Kourenou, 2011). In particular, for the male students, permissive and authoritarian parenting styles significantly correlated with difficulties in making career-related decisions, whereas for the female students, only the authoritarian parenting style was significantly related to such difficulties. Similarly, Sovet and Metz (2014) found that there was no significant gender effect of parenting styles on the CDSE of male and female Korean students, whereas there was a moderating effect among a sample of French male and female students.
Based on the aforementioned literature review, it can be concluded that parenting styles (as external factors) determine the extent to which individuals make career-related decisions. Baumrind (1991) described three types of parenting styles: 1) authoritarian (high control and low warmth); 2) authoritative (high control and high warmth); and 3) permissive (low control and high warmth). However, Fan (2016) indicated that thinking styles (as internal factors) greatly affect such decisions. Hence, the second hypothesis is as follows: H2: Thinking styles mediate the relationship between authoritative parenting styles and CDSE.

Moreover, the influence of different parenting styles on girls and boys indirectly affect their individual thinking styles (Fan & Zhang, 2014; Fan, 2016). Thus, the third hypotheses are as follows: H3: Authoritative parenting styles predict individual thinking styles.

Furthermore, Fan and Zhang (2014) revealed that the Type I thinking styles (e.g., legislative, judicial, global, and liberal styles, etc.) have a positive and significant effect on CDSE, whereas the Type II thinking styles are not significantly related to CDSE. Meanwhile, the Type III thinking styles have a partial and positive effect on CDSE. It means parenting styles have a strong influence on thinking styles, while Fan found that thinking styles have a significant effect on CDSE. Therefore, the fourth hypothesis is as follows: H4: Thinking styles are predictors of CDSE.

Finally, Fan (2016) showed that the Type I thinking styles have a positive relationship with CDSE. Second, the Type II thinking styles are not significantly related to CDSE, which suggests that their effects are not as strong as those of the Type I thinking styles. It is important to note that the Type III thinking styles are not discussed in this study, due to the context in which it focuses on gender and its effect on thinking styles and CDSE.

**Methods**

**Research Design**

This study used a non-experimental quantitative approach to examine the relationship between CDSE, authoritative parenting styles, and thinking styles.

**Research Subjects**

The subjects consisted of 617 gen Z adolescents (11th and 12th grades) from three leading schools in Jakarta (211 males, 406 females; age range 15-17 years (M = 16.40, SD = 0.650). The purposive sampling technique was used to select the subjects.
Research Instruments

Three instruments were used for the data collection: 1) the Career Decision Self-Efficacy Scale – Short Form; 2) the Parental Authority Questionnaire; and 3) the Thinking Style Inventory – Revised II.

Career Decision Self-Efficacy Scale – Short Form

In this study, a measuring instrument that was adapted by previous researchers (Sawitri, 2009) was used. For the purposes of the present study, four items were excluded, after which the instrument demonstrated excellent internal consistency reliability (Cronbach’s alpha coefficient was 0.901 for the 21 valid items). Moreover, to prevent the participants from choosing the mid-point, this study adapted a six-point Likert scale, ranging from 1 (no confidence) to 6 (very confident). This instrument, adapted by Betz, Klein, and Taylor (1996) from the original Career Decision-Making Self-Efficacy Scale (Taylor & Betz, 1983), includes 25 items, with five items allocated to each of the five subscales. The scoring is based on a five-point Likert scale, ranging from 1 (no confidence) to 5 (very confident). The five subsets include: self-appraisal, occupational information, goal selection, planning, and problem solving.

Parental Authority Questionnaire

After the adaptation process for this instrument, field trials with 188 students were conducted and the results were analysed by using confirmatory factor analysis (CFA) to ensure that each item’s t-value was above 1.96 and the load factor was above 0.40 (Anderson & Gerbing, 1984; Marsh, Balla, & McDonald, 1988). Consequently, 20 valid items were identified for the paternal parenting styles, while 21 valid items were identified for the maternal parenting styles. All of the valid items had load factors ranging from 0.40 to 0.88. This instrument also showed good internal consistency reliability, with Cronbach’s alpha coefficients of 0.885 for the paternal authoritative parenting style, 0.710 for the paternal authoritarian parenting style, 0.648 for the paternal permissive parenting style, 0.842 for the maternal authoritative parenting style, 0.802 for the maternal authoritarian parenting style, and 0.749 for the maternal permissive parenting style. This instrument, developed by Buri (1991) and based on Baumrind’s (1978, 1991) three types of parenting styles, includes 30 items (10 items for each parenting style). The scoring is based on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). However, in this study, to prevent the participants from choosing the mid-point, the instrument was adapted for cross-cultural purposes and was modified into a six-point Likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree).
Thinking Style Inventory—Revised II

In the present study, the instrument was adapted for cross-cultural purposes and was modified by using a six-point Likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree). After the adaptation process, field trials with 188 students were conducted and the results were analysed by using CFA to ensure that each item’s t-value was above 1.96 and the load factors were between 0.40 and 0.81. This measurement showed varying internal consistency reliability. For instance, the anarchic thinking style had poor internal consistency, with a Cronbach’s alpha coefficient of only 0.538, whereas the liberal thinking style had the best internal consistency, with a Cronbach’s alpha coefficient of 0.756. This instrument, originally developed by Sternberg and Wagner (1992), includes 104 items (eight items for each of the 13 thinking styles). The first revision (TSI-R) by Sternberg et al. (2003) was used in several studies and it showed good validity. The second and most recent revision (Sternberg, Wagner, & Zhang, 2007) reduced the inventory to 65 items, with five items for each of the 13 thinking styles.

Research Procedure and Data Analysis

The sample of gen Z adolescents from the three leading schools in Jakarta were asked to complete all three instruments as well as to provide demographic information. All of the students received a report on their test results as well as stationery for their participation. The results were analysed by conducting linear regression and multiple regression analyses with Hayes’s Model 4 and SPSS IBM 23 software (Hayes, 2013). Moreover, descriptive statistics and correlation analysis were performed to reveal the relationships between the variables.

Findings

Preliminary Analyses

The descriptive statistics for all of the variables in this study are listed, as well as the correlation between them. Based on Pearson’s correlation analysis, there were some significant associations between CDSE and each thinking style as well as between each parenting style. More specifically, the CDSE variables were positively correlated with the authoritative paternal style, the authoritative maternal style, and the following thinking styles: legislative, executive, judicial, monarchic, hierarchical, anarchic, global, local, internal, external, and liberal. Only the gender variables had a negative correlation with the other variables.
Hypothesis Testing

To test the research hypotheses, Hayes’s Model 4 as well as Hayes’s (2013) macro PROCESS were used. Table 1 and Figure 1 provide a summary of the results.

Table 1: Hypothesis Testing for Mediation Hayes’s Model 4

<table>
<thead>
<tr>
<th>Model</th>
<th>Series of Models</th>
<th>Path c'</th>
<th>Path a</th>
<th>Path b</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>X: AVE</td>
<td>PARENTAL</td>
<td>0.21</td>
</tr>
<tr>
<td></td>
<td>Model 2</td>
<td>X: AVE</td>
<td>PARENTAL</td>
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<tr>
<td></td>
<td>Model 3</td>
<td>X: AVE</td>
<td>PARENTAL</td>
<td>0.27</td>
</tr>
<tr>
<td></td>
<td>Model 4</td>
<td>X: AVE</td>
<td>MATERNAL</td>
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<tr>
<td></td>
<td>Model 5</td>
<td>X: AVE</td>
<td>MATERNAL</td>
<td>0.37</td>
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<td></td>
<td>Model 6</td>
<td>X: AVE</td>
<td>MATERNAL</td>
<td>0.36</td>
</tr>
</tbody>
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Note: AVE = Authoritative, TYPE 1 = Type I Thinking Style, TYPE 2 = Type II Thinking Style, TYPE 3 = Type III Thinking Style. CDSE = Career Decision Self-Efficacy. *p < .05, **p < .01.

Parenting Styles and CDSE (path c)

Based on the regression analyses of the paternal parenting styles, it was found that CDSE was significantly and positively influenced by the authoritative paternal style \(F(5.611) = 34.82, p < .01, R^2 = .22\); \(F(5.611) = 19.20, p < .01, R^2 = .13\); \(F(5.611) = 32.70, p < .01, R^2 = .21\); \(F(5.611) = 15.92, p < .01, R^2 = .11\); \(F(5.611) = 17.17, p < .01, R^2 = .12\). Regarding the maternal parental styles, CDSE was significantly and positively influenced by the authoritative maternal style \(F(5.611) = 34.96, p < .01, R^2 = .22\); \(F(5.611) = 18.97, p < .01, R^2 = .13\); \(F(5.611) = 20.90, p < .01, R^2 = .14\).

Parenting Styles and Thinking Styles (path a)

From the regression analyses, it was found that the Type I thinking styles were significantly and positively influenced by the authoritative paternal style \(F(3.613) = 22.05, p < .01, R^2 = .09\) and the authoritative maternal style \(F(3.613) = 19.68, p < .01, R^2 = .08\). Moreover, the Type II thinking styles were significantly and positively influenced by the authoritative
paternal style ($F(3.613) = 20.95, p < .01, R^2 = .09$), the authoritative maternal style ($F(3.613) = 19.09, p < .01, R^2 = .08$), while the Type III thinking styles were significantly and positively influenced by the authoritative paternal style ($F(3.613) = 22.46, p < .01, R^2 = .09$) and the authoritative maternal style ($F(3.613) = 16.16, p < .01, R^2 = .07$).

**Thinking Styles and CDSE (path b)**

Based on the multiple linear regression analyses, it was found that CDSE was significantly and positively influenced by the Type I thinking styles ($F(5.607) = 35.32, p < .01, R^2 = .22$), Type II thinking styles ($F(5.607) = 19.61, p < .01, R^2 = .13$), and the Type III thinking styles ($F(5.607) = 20.64, p < .01, R^2 = .14$).

**Thinking Styles as the Mediators between Parenting Styles and CDSE**

From the four main variables and their respective dimensions (i.e., authoritative parenting styles, and the thinking styles), 6 models were used to examine the effect of thinking styles, as the mediators between the authoritative parenting styles and CDSE.

Based on Model 1, it was found that Path a, Path b, and Path c were significant. This indicates that the variable X decreases when predicting the variable Y, and that the mediation variable has a greater effect. Thus, the Type I thinking styles partially mediate the effect of the authoritative paternal style on the students’ CDSE. Similarly, the Type II thinking styles partially mediate the effect of the authoritative paternal style on the students’ CDSE in Model 2; the Type III thinking styles partially mediate the effect of the authoritative paternal style on the students’ CDSE in Model 3; the Type I thinking styles partially mediate the effect of the authoritative maternal style on the students’ CDSE in Model 5; the Type III thinking styles partially mediate the effect of the authoritative maternal style on the students’ CDSE in Model 6.
Discussion

Based on the first hypothesis test, it was found that both the paternal and maternal authoritative parenting styles significantly predicted CDSE. These results are in line with those of previous studies (Lau & Power, 2019; Pinquart & Gerke, 2019; Sawitri, Creed, & Zimmer-Gembeck; White, 2009) in which the authoritative parental style had a greater effect on CDSE, due to its balance between warmth and control (Baumrind, 1991). In other words, authoritative parents generally set clear rules and limits, but allow democratic discussions within the family. From the results of the correlation analysis, it was found that the paternal and maternal authoritative styles were positively associated with the legislative, judicial, hierarchical, global, and liberal thinking styles. Regarding the second hypothesis test, it was found that the authoritative parenting style significantly predicted the Type I thinking styles, which is consistent with previous findings (Fan & Zhang, 2014). This indicates that parents who are supportive and democratic tend to produce children with Type I thinking styles in which they are willing to face new situations (Kunnen, Sappa, van Geert, & Bonica, 2008). The Type II thinking styles were also significantly and positively predicted by the authoritative paternal style and the authoritative maternal styles. The results of the correlation analysis also showed that the authoritative paternal style and the authoritative maternal styles were positively associated with the executive, monarchic, local, and conservative styles that characterise the Type II thinking styles. This suggests that children raised by authoritative parents tend to follow the rules and focus on one task at a time.
Based on the third hypothesis test, it was found that Type I thinking styles partially mediated the effect of the authoritative paternal style on the students’ CDSE in Model 1. In addition, the Type II thinking styles partially mediated the effect of the authoritative paternal style on the students’ CDSE in Model 2; the Type III thinking styles partially mediated the effect of the authoritative paternal style on the students’ CDSE in Model 3; the Type I thinking styles partially mediated the effect of the authoritative maternal style on the students’ CDSE in Model 5; the Type III thinking styles partially mediated the effect of the authoritative maternal style on the students’ CDSE in Model 6. Meanwhile, the Type II thinking styles fully mediated the effect of the authoritarian paternal style on the CDSE of the male students (Models 4). The findings of this study are in line with those of Fan and Zhang (2014) and Fan (2016), who found that authoritative parenting styles have a significant influence on thinking styles as well as career planning and development.

Regarding the fourth hypothesis test, it was found that the Type I thinking styles significantly predicted CDSE, which is consistent with previous research (Fan, 2016). Although the Type II thinking styles also predicted CDSE, the effect was not as significant. Regarding the Type III thinking styles, they significantly predicted CDSE, which is in line with Fan (2016), who found that Type III thinking styles were greater predictors of CDSE than Type II thinking styles. This study examined the relationship between CDSE, authoritative parenting styles, and thinking styles.

**Conclusion**

This study found that CDSE was significantly influenced by the authoritative parenting styles, and it was significantly affected by all the three thinking styles (Types I, II, and III). In addition, the thinking style variables significantly mediated the relationship between the authoritative parenting styles and CDSE. The findings of this study could form the basis for developing future CDSE interventions for male and female students. However, this study includes two limitations that should be noted. First, in two of the three schools, the researchers collected data during the final hour of the school day when the students were tired and lacked focus. Consequently, some of the answers were unable to be applied.

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