Effect of Early Childhood Pre-Service Teachers’ Character Strengths and Happiness on their Anger Expression

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Abstract

Objectives: The purpose of this study is to examine the effect of early childhood pre-service teachers' character strengths and happiness on their anger expression. Methods/Statistical Analysis: The participants, comprised of this study, were 337 subjects. They are pre-service teachers, majoring in early childhood education at universities. Data were collected by survey questionnaires: 1) the surveys of character strengths from Authentic Happiness(2006) and short form of Seligman(2004)'s scale; 2) Choi(2011)'s Happiness Scale, revised from Kwon(2008)'s, the translated version of Oxford Happiness Inventory(OHI) (Argyle, 2001); 3) Chon et al. (1997)'s STAXI: Korean version, from Spielberger, Krasner, & Solomon(1988)'s STAXI: State-Trait Anger Expression Inventory. Findings: Firstly, the examination of correlation among the early childhood pre-service teachers' character strengths, happiness, and anger expression reveals that there is statistically significant positive correlation among those variables. ‘Humanity’ and ‘transcendence’, among the sub-factors in character strengths, appear to be highly correlated with the sub-factors in happiness. In the study, there are statistically significant positive correlation among their character strengths and happiness and ‘anger-control’, one of the sub-factors in ‘anger expression’; and statistically significant negative correlation among character strengths and happiness and ‘anger-in’ and ‘anger-out’, the sub-factors in ‘anger expression’. Secondly, as the result of analyzing the effect of early childhood pre-service teachers’ character strengths and happiness on the sub-factors in anger expression, ‘knowledge & wisdom’, ‘temperance’, and ‘courage’ among the sub-factors in character strengths, and ‘external factor’ in happiness, have explanatory power of ‘angry-out’21%. This study also reveals that early childhood pre-service teachers’ ‘temperance’, among the sub-factors in character strengths, has a negative effect on their ‘anger-out’ and ‘anger-in’, whereas ‘temperance’ has a positive effect on ‘anger-control’. Improvements/Applications: The findings of this study provide insights to early childhood education field in terms of appropriate ways to promote happiness and character strengths of early childhood pre-service teachers, thus to quality of education.

Keywords: Anger Expression, Character Strengths, Early Childhood Education, Happiness, Pre-Service Teachers

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1. Introduction

Early childhood pre-service teachers are the ones who will take the significant teachers’ roles in future education field. The examination of their character strengths, happiness, and anger expression is crucial not only for themselves but also for their interaction with children and for the quality of early childhood education. In this study, the main purpose is to find out the effect of early childhood pre-service teachers’ character strengths and happiness on their anger expression. The specific research questions are as follows:

1. How do early childhood pre-service teachers perceive their character strengths, happiness, and anger Expression?
2. What is the relationship among early childhood pre-service teachers’ character strengths, happiness and anger expression?
3. What are the relative effects of early childhood pre-service teachers’ character strengths and happiness on their anger expression?

Happy pre-service teachers are more likely to perceive their lives positively, cope well with stress, and have more passion in interacting with children\(^1\). Anger is one of the basic emotions of human, however, if one cannot appropriately express intensity, frequency, and duration of his/her anger, it may lead to physical, mental, and social problems. In order to maintain emotional well-being and good social relationships, it is essential for people to be able to express and control their anger appropriately\(^2\). According to\(^3\), happy people tend to use their character strengths more effectively, which lead to improve the life and job satisfaction. All of these aspects are significant elements for the early childhood pre-service teachers, especially for those who will educate and interact with young children in education setting. This study will provide insights to the early childhood education field through understanding interrelationships among character strengths, happiness, and anger expression, thus lead to find and implement ways to improve the early childhood pre-service teachers’ character strengths and happiness as well as quality of education.

2. Proposed Work

2.1 Methods

2.1.1 Research Participants

For this study, 382 pre-service teachers were initially surveyed. These pre-service teachers are the undergraduate students, majoring in early childhood education at universities and colleges in Korea. Of the 382 surveys, 356 (93.2%) were returned. Among the returned questionnaire surveys, 19 surveys which had no signature on the consent form, or no response or were not sufficiently answered, were excluded. The total number of valid participants, comprised of this study was 337 subjects. An overview of participant demographic data is described in Table 1.

| Properties | Categories | f (N) | (%) |
|------------|------------|------|-----|
| Age        | under 18 years old | 40   | 11.9|
|            | 19 years old     | 69   | 20.5|
|            | 20 years old     | 119  | 35.3|
|            | 21 years old     | 67   | 19.9|
|            | 22 years old     | 27   | 8.0 |
|            | over 23 years old| 15   | 4.4 |
| Education level | 3-year education program (Associate Degree) | 179  | 53.1|
|            | 4-year education program (Undergraduate Degree) | 158  | 46.9|
| Year in school | Freshman (1st year) | 39   | 11.6|
|            | Sophomore (2nd year) | 93   | 27.6|
|            | Junior (3rd year)  | 134  | 39.8|
|            | Senior (4th year)  | 71   | 21.1|
| Total      |             | 337  | 100|

2.1.2 Research instruments

2.1.2.1 Character Strengths Scale

Early childhood pre-service teachers’ character strengths were examined and collected by survey questionnaires. This study adopted the surveys of character strengths of\(^4\) who adopted and translated Authentic Happiness\(^5\) and short form of Seligman\(^6\)’s scale. The character strengths scale used in this study consisted of six sub-factors: “knowledge & wisdom”, “courage”, “humanity”, “justice”, “temperance”, and “transcendence”. The response scale for each item ranged from 1 (strongly disagree) to 5 (strongly agree). Specific name of sub-factors and number of items in each sub-factor of ‘character strengths’ scale, and the reliability of the scale are presented in Table 2.
### Table 2. Number of items in each sub-factor of ‘Character strengths’ scale and reliability of the scale

| Sub-factors          | Number of items | Item number          | Cronbach α |
|----------------------|-----------------|----------------------|------------|
| Wisdom & Knowledge   | 10              | 1, 2, 3, 4, 5, 6, 7, 8, 11, 12 | .84        |
| Courage              | 8               | 13, 14, 15, 16, 17, 18, 47, 48 | .76        |
| Humanity             | 6               | 9, 10, 19, 20, 21, 22 | .81        |
| Justice              | 6               | 23, 24, 25, 26, 27, 28 | .86        |
| Temperance           | 8               | 29, 30, 31, 32, 33, 34, 43, 44 | .80        |
| Transcendence        | 10              | 35, 36, 37, 38, 39, 40, 41, 42, 45, 46 | .88        |
| Total                | 48              |                      | .84        |

### 2.1.2.2 Happiness Scale

Data of early childhood pre-service teachers ‘happiness was collected and examined by survey questionnaires. The study used’s Happiness Scale, revised from’s, the translated version of Oxford Happiness Inventory (OHI). The Happiness scale used in this study consisted of three sub-factors: “external factor”, “internal factor”, and “self-regulatory factor”. The response scale for each item ranged from 1 (strongly disagree) to 5 (strongly agree). Specific name of sub-factors and number of items in each sub-factor of ‘happiness’ scale, and the reliability of the scale are presented in Table 3.

### Table 3. Number of items in each sub-factor of ‘Happiness’ scale and reliability of the scale

| Sub-factors          | Number of items | Item number          | Cronbach α |
|----------------------|-----------------|----------------------|------------|
| External factor      | 10              | 7,8,11,14,15,16,18,19, 20,21 | .91        |
| Internal factor      | 6               | 1,2,3,4,5,6          | .90        |
| Self-regulatory factor | 5            | 9,10,12,13,17       | .80        |
| Total                | 21              |                      | .94        |

### 2.1.2.3 Anger Expression Scale

Data of early childhood pre-service teachers’ anger expression was also collected and examined by survey questionnaires. This study used’s STAXI: Korean version, from Spielberger’s STAXI: State-Trait Anger Expression Inventory. The ‘anger expression’ scale used in this study consisted of three sub-factors: “anger-out”, “anger-in”, and “anger-control”. The response scale for each item ranged from 1 (strongly disagree) to 5 (strongly agree). Specific name of sub-factors and number of items in each sub-factor of ‘anger expression’ scale, and the reliability of the scale are presented in Table 4.

### Table 4. Number of items in each sub-factor of ‘Anger expression’ scale and reliability of the scale

| Sub-factors          | Number of items | Item number          | Cronbach α |
|----------------------|-----------------|----------------------|------------|
| Anger-out            | 8               | 2,7,9,12,14,19,22,23 | .75        |
| Anger-in             | 8               | 3,5,6,10,13,16,17,21 | .64        |
| Anger-control        | 8               | 1,4,8,11,15,18,20,24 | .70        |
| Total                | 24              |                      | .74        |

### 2.1.3 Research Procedure

#### 2.1.3.1 Pilot Survey

Pilot survey was conducted with 25 undergraduate students, majoring in early childhood education, from March 7, 2016 to March 10, 2016. Through this pilot survey, the questionnaire surveys for ‘character strengths’, ‘happiness’, ‘and ‘anger expression’ were examined in terms of comprehensibility of the contents of those surveys and their appropriateness.

#### 2.1.3.2 Main Survey

After the pilot survey, the final survey instruments (questionnaires), reviewed by three early childhood education professionals, were conducted from March 20, 2016 to April 4 2016. For the study, 382 pre-service teachers were initially surveyed. Among the returned surveys, the surveys which had no signature on the consent form, or no response or were not sufficiently answered, were excluded. The total number of valid participants, used in this study was 337 subjects. All subjects gave their written informed consent to participate.
2.1.4 Data Analysis

In this study, statistical analysis was performed using PASW 20.0 in the process of preceding the data from the surveys. For the research question 1, statistical analysis was done for mean and SD to investigate early childhood pre-service teachers’ character strengths, happiness, and anger expression. For the research question 2, in order to find out the relationship among those variables, correlation analysis and Pearson’s product-moment correlation coefficient were conducted for the examination of general tendency and relationships. Lastly, for the research question 3, step-wise multiple regression analysis was proceeded to find out effect of early childhood pre-service teachers’ character strengths and happiness on their anger expression.

2.2 Results

2.2.1 Early Childhood Pre-Service Teacher’s Character Strengths, Happiness, and Anger Expression

Examination of mean and SD values of the sub-factors in early childhood pre-service teachers’ character strengths, happiness, and anger expression, and mean score for items of each sub-factors were presented in Table 5.

As seen in Table 5, among the sub-factors in character strengths, ‘justice’ was highest in mean score for each item 3.92 (SD=.49); whereas ‘temperance’ was lowest in mean score for each item 3.30 (SD=.39). Among the sub-factors in happiness, ‘self-regulatory factor’ had mean score for each item 3.82 (SD=.72), ‘internal factor’ had 3.82 (SD=.72), and ‘external factor’ had 4.01 (SD=.59). Among the sub-factors in anger expression, ‘anger-out’ had mean score for each item 3.54 (SD=.45), ‘anger-control’ had 3.43 (SD=.49), and ‘anger-in’ 3.48 had (SD=.55).

2.2.2 Relationship among Early Childhood Pre-Service Teachers’ Character Strengths, Happiness, and Anger Expression

2.2.2.1 Correlation among Early Childhood Pre-Service Teachers’ Character Strengths, Happiness, and Anger Expression

The relationships among early childhood pre-service teachers’ character strengths, happiness, and anger expression were examined by Pearson’s product-moment correlation coefficient. As presented in Table 6, correlation between early childhood pre-service teachers’ character strengths and happiness was .64, correlation between their character strengths and anger expression was .59, and correlation between the happiness and anger expression was .52.

| Variable Name | Sub-factor             | Mean (M) | SD  | Mean score for each item(SD) |
|---------------|------------------------|----------|-----|-------------------------------|
| Character Strengths | Wisdom & knowledge     | 34.81    | 4.21| 3.48(.42)                     |
|                | Courage                | 27.98    | 3.17| 3.50(.40)                     |
|                | Humanity               | 23.51    | 2.92| 3.92(.49)                     |
|                | Justice                | 20.37    | 3.08| 3.39(.51)                     |
|                | Temperance             | 26.42    | 3.17| 3.30(.39)                     |
|                | Transcendence          | 38.84    | 4.40| 3.88(.44)                     |
|                | Total                  | 171.94   | 15.16| 3.58(.32)                     |
| Happiness | External factor        | 40.10    | 5.92| 4.01(.59)                     |
|             | Internal factor        | 22.91    | 4.33| 3.82(.72)                     |
|             | Self-regulatory factor | 17.17    | 3.34| 3.43(.67)                     |
|             | Total                  | 80.18    | 12.27| 3.82(.58)                     |
| Anger | Anger-out              | 28.34    | 3.58| 3.54(.45)                     |
| Expression | Anger-in               | 27.89    | 4.43| 3.48(.55)                     |
|                | Anger-control          | 27.88    | 3.90| 3.48(.49)                     |
|                | Total                  | 84.11    | 8.82| 3.50(.37)                     |
2.2.2 Correlation among the Sub-Factors in the Early Childhood Pre-Service Teachers’ Character Strengths, Happiness, and Anger Expression

The relationships among the sub-factors in early childhood pre-service teachers’ character strengths, happiness, and anger expression were examined by Pearson’s product-moment correlation coefficient. As shown in Table 7, there was statistically significant positive correlation among the sub-factors in the early childhood pre-service teachers’ character strengths, happiness, and anger expression (r = .21 to r = .74). In other words, the early childhood pre-service teachers, scored high on the character strengths, are also scored high on the happiness and anger expression.

Table 6. Correlation among early childhood pre-service teachers’ character strengths, happiness, and anger expression (N=337)

| Variables | Character strengths | Happiness | Anger expression |
|-----------|---------------------|-----------|-----------------|
| Character strengths | .64** | .59** | .52** |
| Happiness | | | |
| Anger expression | | | |

*p <.05 **p <.01

Table 7. Correlation among sub-factors in character strengths, happiness, and anger expression of early childhood pre-service teachers (N=337)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|
| 1 | .50** | | | | | | | | | | | |
| 2 | .54** | .46** | | | | | | | | | | |
| 3 | .53** | .44** | .52** | | | | | | | | | |
| 4 | .34** | .27** | .22** | .29** | | | | | | | | |
| 5 | .52** | .47** | .55** | .40** | .26** | | | | | | | |
| 6 | .50** | .41** | .53** | .46** | .24** | .53** | | | | | | |
| 7 | .42** | .43** | .43** | .37** | .28** | .42** | .74** | | | | | |
| 8 | .45** | .45** | .33** | .41** | .29** | .38** | .69** | .69** | | | | |
| 9 | .36** | .32** | .27** | .33** | .33** | .31** | .33** | .27** | .27** | | | |
| 10 | .33** | .34** | .32** | .40** | .28** | .32** | .41** | .35** | .37** | .46** | | |
| 11 | .33** | .22** | .25** | .34** | .26** | .36** | .37** | .32** | .33** | .31** | .21** | |

*p <.05 **p <.01

1. Wisdom & knowledge 2. Courage 3. Humanity 4. Justice 5. Temperance 6. Transcendence
7. External factor 8. Internal factor 9. Self-regulatory factor 10. Anger-out 11. Anger-in 12. Anger-control

2.2.3 Explanatory Power of Character Strengths and Happiness for Early Childhood Pre-Service Teachers’ Anger Expression

2.2.3.1 Effect of Early Childhood Pre-Service Teachers’ Character Strengths and Happiness on their Anger Expression

In Table 8, ‘justice’, ‘temperance’, and ‘transcendence’, among the sub-factors in character strengths; and ‘external factor’ in happiness, have explanatory power of angry expression 40%. Also, the regression analysis is statistically significant (F=56.19, p <.001), and thus, the formula
for the regression model is adequate for the analysis. From these above results, ‘justice’, ‘temperance’, ‘transcendence’ among the sub-factors in the character strengths, and ‘external factor’ in the happiness can be explained as variables that affect the early childhood pre-service teachers’ anger expression.

### 2.2.3.2 Effect of the Sub-Factors in Early Childhood Pre-Service Teachers’ Character Strengths and Happiness on the Sub-Factors in their Anger Expression

In Table 9, ‘Knowledge & wisdom’, ‘temperance’, and ‘courage’, among the sub-factors in character strengths; and ‘external factor’ in happiness have explanatory power of ‘anger-out’21%. Among those sub-factors, ‘knowledge & wisdom’ has high explanatory power 13%. In here, as ‘temperance’ was added, there was 5% increase in the explanatory power, which lead to explanatory power 18%; as ‘external factor’ was added, there was 2% increase in the explanatory power; and as ‘courage’ was added, there was 1% increase in the explanatory power, all of which lead to have explanatory power21%. Also, the regression analysis is statistically significant (F=22.85, p <.001), and thus, the formula for the regression model is adequate for the analysis. From these above results, ‘knowledge & wisdom’, ‘temperance’, ‘courage’ among the sub-factors in the character strengths, and ‘external factor’ in the happiness can be explained as variables that affect the early childhood pre-service teachers’ anger-out.

As presented in Table 10, ‘transcendence’, ‘justice’, and ‘temperance’ among the sub-factors in character strengths; and ‘external factor’ in happiness, have explanatory power of ‘anger-in25%. Among those sub-factors, ‘external factor’ has high explanatory power 17%. In here, as ‘justice’ was added, there was 5% increase in the explanatory power, which lead to explanatory power 22%; as ‘temperance’ was added, there was 2% increase in the explanatory power; and as ‘courage’ was added, there was 1% increase in the explanatory power, all of which lead to have explanatory power25%. Also, the regression analysis is statistically significant (F=28.32, p <.001), and thus, the formula for the regression model is adequate for the analysis. From these above results, ‘transcendence’, ‘justice’, ‘temperance’ among the sub-factors in the character strengths, and ‘external factor’ in the happiness can be explained as variables that affect the early childhood pre-service teachers’ anger-in.

As shown in Table 11, ‘transcendence’, ‘justice’, and ‘temperance’, among the sub-factors in character strengths; and ‘external factor’ in happiness, have explanatory power of ‘anger-control22%. Among those sub-factors, ‘external factor’ has high explanatory power 14%. In here, as ‘transcendence’ was added, there was 4% increase in the explanatory power, which lead to explanatory power 18%; as ‘justice’ was added, there was 2% increase in the explanatory power; and as ‘temperance’ was added, there was 2% increase in the explanatory power, all of which lead to have explanatory power of angry expression 22%. Also, the regression analysis is statistically significant (F=22.88, p <.001), and thus, the formula for the regression model is adequate for the analysis. From these above results, ‘transcendence’, ‘justice’, ‘temperance’ among the sub-factors in the character strengths, and ‘external factor’ in the happiness can be explained as variables that affect the early childhood pre-service teachers’ anger-control.

### Table 9. Stepwise multiple regression analysis examining early childhood pre-service teachers’ ‘Anger-out’ sub-factor (N=337)

| Independent Variable | B   | B   | T   | R²  | R² Change | F      |
|----------------------|-----|-----|-----|-----|-----------|--------|
| (Constant)           | 1.23| 1.51| 3.05| .22 | .02       | 22.85***|
| Wisdom & Knowledge   | .16 | .15 | 2.44**| .21 | .13       | 22.85***|
| Temperance           | .24 | .21 | 4.05***| .25 | .05       |        |
| External Factor      | .12 | .16 | 2.69***| .28 | .02       |        |
| Courage              | .14 | .13 | 2.12**| .21 | .01       |        |

*p <.01, **p <.001
3. Conclusion

The purpose of this study was to examine the effect of early childhood pre-service teachers’ character strengths and happiness on their anger expression. The findings of this research study will provide insights to the early childhood education field in terms of finding out specific elements of character strengths and happiness which affect pre-service teachers’ anger expression, thus providing ways to manage ones’ anger appropriately as well as improving their character strengths and happiness through understanding such data. The specific findings of the present study are as follows.

Firstly, the examination of correlation among the early childhood pre-service teachers’ character strengths, happiness, and anger expression reveals that there is statistically significant positive correlation among those variables. This finding is congruent with the findings of other research studies: there are statistically significant positive correlation between early childhood pre-service teachers ‘character strengths and happiness'12; university students’ character strengths and happiness13; and early childhood teachers’ character strengths and happiness14. Namely, if the early childhood pre-service teachers use character strengths, it can be ways for them to improve their happiness, which means, those scoring high on the happiness can actually use their character strengths effectively. Especially, in this study, ‘humanity’ and ‘transcendence’, among the sub-factors in character strengths, appear to be highly correlated with the sub-factors in happiness: ‘humanity’ can be explained as interpersonal strengths, such as “love”, “kindness”, and “social intelligence”; ‘transcendence’ can be explained as character strengths that related to providing meaning to phenomena or behavior, such as “appreciation of beauty”, “gratitude”, “hope”, “humor”, and “religiousness”15. These are congruent with the research findings that happy person tends to have more people around him/her than unhappy person, and there is more possibility of being happy when people are with happy person rather than with unhappy.

Table 10. Stepwise multiple regression analysis examining early childhood pre-service teachers’ ‘Anger-in’ sub-factor (N=337)

| Independent Variable | B       | B   | t    | R²    | R² Change | F        |
|----------------------|---------|-----|------|-------|-----------|----------|
| (Constant)           | .66     |     |      |       |           |          |
| External Factor      | .23     | .25 | 4.41”| .25   | .17       | 28.32”   |
| Justice              | .21     | .19 | 3.40”|       | .05       |          |
| Temperance           | .19     | .14 | 2.69”|       | .02       |          |
| Courage              | .16     | .12 | 2.08”|       | .01       |          |

*p <.01, **p <.001

Table 11. Stepwise multiple regression analysis examining early childhood pre-service teachers’ ‘Anger-control’ sub-factor (N=337)

| Independent Variable | B        | B    | t     | R²    | R² Change | F        |
|----------------------|----------|------|-------|-------|-----------|----------|
| (Constant)           | 1.12     |      |       |       |           |          |
| External Factor      | .15      | .18  | 3.02” | .22   | .14       | 22.88”   |
| Transcendence        | .19      | .18  | 2.96” |       | .04       |          |
| Justice              | .14      | .15  | 2.57” |       | .02       |          |
| Temperance           | .17      | .13  | 2.56” |       | .02       |          |

*p <.05 , **p <.01 , ***p <.001
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person. Also in many recent research, there are programs developed by using ‘gratitude’ and ‘hope’ in character strengths as ways to improve one’s happiness, which also can be a supportive evidence for the finding of this study.

Furthermore, in the study, there are statistically significant positive correlation among early childhood pre-service teachers’ character strengths and happiness and ‘anger-control’, one of the sub-factors in ‘anger expression’; and statistically significant negative correlation among character strengths and happiness and ‘anger-in’ and ‘anger-out’, the sub-factors in ‘anger expression’. Even though there are few studies conducted regarding the correlation among character strengths, happiness, and anger expression, this finding is congruent with the findings of 22’s study done with high school students: there are positive correlation among ‘anger-control’, the sub-factors of ‘anger expression’, and empathy and self-elasticity; whereas negative correlation among ‘anger-out’ and ‘anger-in’, the sub-factors of ‘anger expression’, and ‘anger-control’. This leads that it is important to examine statistically significant correlation among character strengths, happiness, and ‘anger-out’ and ‘anger-in’, the sub-factors in ‘anger expression’: because, ability of controlling one’s anger effectively and strategically is relevant to improve character strengths and happiness, whereas ‘anger-out’ or ‘anger-in’ may negatively influence on development of character strengths and happiness, thus it is crucial to support early childhood pre-service teachers in terms of controlling their anger in appropriate ways.

Secondly, as the result of analyzing the effect of early childhood pre-service teachers’ character strengths and happiness on the sub-factors in anger expression, ‘knowledge & wisdom’, ‘temperance’, and ‘courage’ among the sub-factors in character strengths, and ‘external factor’ in happiness, have explanatory power of ‘anger-out’ 21%. Namely, the result indicates that, for those, scoring high on ‘knowledge & wisdom’, ‘temperance’, and ‘courage’ among the sub-factors in character strengths, and ‘external factor’ in happiness, are less likely to use “anger-out”. Especially, “knowledge & wise”, such as using knowledge, can be seen as “intelligent strengths” and have 13% of overall explanatory power, this above finding is congruent with the research study that cognitive behavioral anger management program may have statistically significant influence on anger-control. Also, since anger management actions require one’s cognitive and behavioral efforts, it can be interpreted as for those early childhood pre-service teachers who have such intelligent strengths, tend to be less “anger-out” in various anger-provoking situations.

‘External factor’, among the sub-factors in happiness, and ‘justice’, ‘temperance’, and ‘courage’ among the sub-factors in character strengths, have explanatory power of ‘anger-in’ 25%; and external factor in happiness, and ‘transcendence’, ‘justice’, and ‘temperance’ among the sub-factors in character strengths, have explanatory power of ‘anger-control’ 22%. Furthermore, external factor in happiness have explanatory power of ‘anger-out’, ‘anger-in’, ‘anger-control’, 2%, 17%, 14%: except for the ‘anger-out’, ‘anger-in’ and ‘anger-control’ are mostly influenced by ‘external factor’ in happiness. This finding is congruent with 23’s study that the ‘low anger-involving’ group had a statistically significant relationship with and scored high on level of ‘happiness’; and also ‘adaptive anger-control’ group had a high level of happiness than other anger groups.

This study also reveals that early childhood pre-service teachers’ ‘temperance’, among the sub-factors in character strengths, has a negative effect on their ‘anger-out’ and ‘anger-in’, whereas ‘temperance’ has a positive effect on ‘anger-control’. ‘Temperance’ can be explained as “strengths that protect against excess”, such as “forgiveness”, “prudence”, “self-regulation”. According to 24’s study, it was found that college students’ self-regulation affected their emotional regulation, all of which supports the findings of the present study. This means that when one has character strengths like ‘temperance’, such as ‘self-regulation,’ it would help him/her to control anger in appropriate ways rather than ‘anger-out’ or ‘anger-in’ ways. Also, it was appeared that ‘justice’, among the sub-factors in character strengths, has a negative effect on ‘anger-in’, and has a positive effect on ‘anger-control’. ‘Justice’ can be explained as “citizenship”, “fairness”, “leadership”, all of which are strengths that are related to “healthy community life”. For those early childhood pre-service teachers who tend to have many educational experiences of communicating and interacting with other people, such as group assignment, practicum, field experience, if they improve ‘justice’ among the sub-factors in character strengths, this may help the pre-service teachers to appropriately control their anger rather than anger-in, thus lead them to keep and develop healthy interpersonal relationships.

In the study, it is found that early childhood pre-service teachers’ ‘courage’, among the sub-factors in
character strengths, has a negative effect on their 'anger-out' and 'anger-in', whereas 'transcendence' influences on 'anger-control'. 'Courage' can be explained as strengths that involve one's willingness to accomplish his/her goals despite of internal/external difficulties. When one gets anger, immediate anger-out or anger-in does not promote healthy relationships. Therefore, 'courage' in character strengths may help people to use their positive strategies to deal with various anger-provoking situations.

'Transcendence', among the sub-factors in character strengths, can be understood as strengths that encourage one to seek for "connection to the larger universe" and get a meaning from phenomenon. Especially, 'transcendence' may include character strengths like "hope", "humor", which allow people to have positive expectations about work and outcomes, and give energy in living their lives through laugh and smile. The effect of 'transcendence' on 'anger-control' can be interpreted that, when one is faced with anger-provoking situations, he/she can think ahead possible negative outcomes which may come after the anger-out, thus he/she may use humor or other ways to control his/her anger in order to prevent those negative outcomes. From this finding, in order for early childhood pre-service teachers to effectively control their anger, they need to have chances for increasing experience of happiness in their interpersonal relationships with others, and also it would be crucial to provide them opportunity to take programs for developing character strengths like 'justice', 'temperance', 'transcendence', 'courage', and character education. Universities and colleges may offer relevant general education courses, or programs and activities at center for teaching & learning for pre-service teachers (university students). Since early childhood pre-service teachers are those who will educate and interact with young children in future education setting, being able to control their anger instead of immediate 'anger-out' or 'anger-in' will affect not only their happiness but also improvement of their interaction with children as well as quality of early childhood education. Through the examination of early childhood pre-service teachers' happiness and character strengths which are the main variables that affect their anger-control, this study provides insights to the early childhood education field in terms of appropriate ways to promote happiness and character strengths of pre-service teachers.

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