

Daily Dynamics of Grateful Mood, Emotional Support from Parents, and Psychological Well-Being across Seven Days among Korean Adolescents¹

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Abstract

Even though gratitude is considered as an important virtue to possess for successful adulthood, little is known about what cultivates gratitude and its benefits associated with psychological well-being among adolescents. By examining gratitude as a daily mood, this study asked (1) whether adolescents' daily grateful mood varied as a function of daily parental emotional support and (2) whether adolescents' psychological well-being varied as a function of daily grateful mood within person across seven days. The sample consisted of 70 adolescents in 8th grade recruited from a public middle school. Participants completed daily diary checklists online each evening for seven days. On days when adolescents perceived greater parental emotional support from mother or father than they typically did during the week, they rated their grateful mood to be higher than other days. With more emotional support from father, adolescents reported more grateful mood not only on that day, but also the following day. While this result highlights the important role that parents play in adolescents' experience of grateful mood, emotionally supportive behaviors of fathers appear particularly promising for cultivating gratitude. Further, daily grateful mood on a given day accounted for the significant variance in adolescents' psychological well-being not only on the same day, but also the following day. Research and practical implications of the results are discussed.

Keywords

adolescents, gratitude, emotional support of parents, psychological well-being, daily diary research

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Introduction

Although gratitude has been defined and studied in many ways across diverse disciplines for many centuries, the scientific understanding of gratitude has significantly grown only over the last two decades. The nature of this construct has been primarily conceptualized in the field of social science research in two ways. First, there is a line of research that approaches gratitude as a disposition. These studies assume that gratitude is part of a global life orientation towards noticing and appreciating the positive in the world. Individuals with such a grateful disposition tend to be more satisfied with their lives, happier in general, and more hopeful about life (McCullough, Emmons, & Tsang, 2002; Wood, Maltby, Stewart, & Joseph, 2008a). Another line of research views gratitude as an emotional experience specifically in response to the receipt of benefits. According to this view, people feel

grateful after they receive something positive (e.g., a kind act or a gift) from another person, which is perceived as altruistic and valuable (McCullough, Kilpatrick, Emmons, & Larson, 2001; Wood, Maltby, Stewart, Linley, & Joseph, 2008b). The previous research taking this perspective shows that individuals who are induced to feel grateful in experimentally manipulated settings report more positive emotions and engage in prosocial behavior compared to those in control groups who do not get to experience grateful emotions (Froh, Sefick, & Emmons, 2008; McCullough *et al.*, 2001).

Despite the significant contributions made by the previous research, important limitations remain that merit more research to deepen our understanding of gratitude. While the empirical picture of gratitude among adults is more solidly established, there is little research conducted with adolescents. Adolescence is a critical period where important virtues necessary for successful adulthood are acquired and cultivated. As previous research with adults documents evidence for positive psychological and social functioning associated with grateful disposition (Froh *et al.*, 2008; McCullough *et al.*, 2001; McCullough *et al.*, 2002; Wood *et al.*, 2008a), gratitude must be one of the key virtues to be fostered during adolescence for transitioning to healthy and well-functioning adulthood. Researchers suggest that it may not be until early adolescence (ages 10-14) that children can reliably experience genuine gratitude and reap its psychological benefits (Froh & Bono 2008). Thus, early adolescence would be an ideal period for examining to what extent adolescents experience gratitude, what might cultivate gratitude, and its psychological effects.

Also, as gratitude has previously been linked with many social and psychological benefits among adults, it is important to identify what fosters gratitude early on in life. Given that parents continue to be critical socializing agents in adolescents' lives with significant impact on their development, one can expect what parents do might have impact on adolescent gratitude. However, there has been little systematic exploration of the role of parents in adolescent gratitude. A study by Gordon, Musher-Eizenman, Holub, and Dalrymple (2004) suggests that family may be particularly important for young adolescents' experience of gratitude. In this study, when middle school children were asked to think about what they were most grateful for, the most common gratitude theme was

family. For instance, family members were cited nearly three times as often as teachers and/or school. Bai and Jin (2016) found that Chinese children in 6th grade with greater levels of family cohesion and adaptability scored higher on gratitude. Also, Sepowitz (2011) showed more specifically that mothers' parenting behaviors that emphasized emotion expression to their children (ages 9-13) were significantly associated with higher levels of gratitude among children. Finally, one study conducted with Korean adolescents (Lim, Kim, Kim, & Xiong, 2015) showed that paternal teaching/instructive lesson and mother's affectionate attention explained grateful disposition for male and female high school students.

A couple of previous Korean studies also found that grateful disposition among Korean adolescents was significantly associated with psychological well-being (Ham, Byeon, & Cheon, 2011; Noh & Shin, 2008). These studies further highlight the importance of fostering gratitude among adolescents. However, despite the evidence that parenting might be related to adolescent gratitude and gratitude is associated with greater psychological well-being, most of the previous research is correlational based on cross-sectional data. As such, the direction of influence between parenting and gratitude and between gratitude and psychological well-being remains unclear. These limitations call for more research with younger adolescents, using repeated measurements of the variables across time.

Another limitation in the field of gratitude research is the lack of attention to gratitude as a daily mood. According to Rosenberg (1998), moods fluctuate across days and vary as a function of the events that occur to people each day. While emotions are more acute and have a relatively short duration, moods can have broader and more pervasive effects on the psychological state of the person over relatively long span of time (Rosenberg, 1998). McCullough, Tsang, & Emmons (2004) suggest that psychological effects of gratitude are probably caused by gratitude as a mood, rather than gratitude as an emotion, as emotions are far too short lasting. Therefore, to understand what kind of experience with parents might be associated with adolescents' gratitude on a daily basis and how gratitude may influence their psychological lives, it would be useful to examine how they experience grateful moods in daily life.

The goal of the present study was to address the aforementioned limitations in the previous research by examining the daily

dynamics of adolescents' grateful mood, emotional support from each parent, and psychological well-being across seven days in a sample of 70 Korean adolescents in 8th grade. Indices of psychological well-being in this study included feelings of depression, anxiety, and happiness. The daily diary method (Bolger, Davis, & Rafaeli, 2003) was employed to collect daily reports from adolescents each day for seven consecutive days. The daily diary method is particularly useful for examining gratitude as a mood within person across days. With this micro-longitudinal design it was possible to capture same-day as well as lagged effects of parental emotional support on adolescents' grateful mood as well as the effects of changes in grateful mood on adolescents' psychological well-being by measuring fluctuations within person across time. For instance, it was possible to examine whether experiencing emotional support from a parent more than usual on a given day would significantly predict adolescents' grateful mood on the same as well as the next day, with the prior day level of parental emotional support controlled for. By doing so, it was possible to look more closely into the temporal order of influence in a way that previous cross-sectional studies could not.

The present study examined daily parental emotional support in particular as an important parent factor that might be associated with adolescents' grateful mood in their daily lives. Parental emotional support reflects warmth, understanding, and responsiveness that children experience in interactions with parents (McCarty, Zimmerman, Digiuseppe, & Christakis, 2005). Such warm, interpersonal experience with parents has been associated with better socioemotional adjustment and prosocial characteristics among children and adolescents (Zhou *et al.*, 2002). In addition, previous research suggests that family is the most pertinent theme related to children's gratitude (Gordon *et al.*, 2004). Specifically, parenting behaviors have been shown to matter for children's gratitude (Sepowitz, 2011). In light of the past research, it was expected in this study that on days in which adolescents perceived more parental emotional support than they typically did during the week, they would experience more grateful mood throughout the day compared to other days. Further, given that most previous research on parenting in Korea primarily focused on parenting among mothers (Doh, Kim, Park, & Hwang, 2005; Kim & Lee, 2013), the present study examined parental emotional support

by analyzing the effects of both mothers' and fathers' emotional support separately.

The following research questions were examined:

- 1) Do adolescents feel more grateful on days in which they perceive more emotional support from each parent than usual, separately for father and mother?
- 2) Do adolescents feel more grateful the following day after controlling for the prior day level of grateful mood?
- 3) Do adolescents feel happier and less depressed and anxious on days in which they feel more grateful than usual?
- 4) Do adolescents continue to feel happier and less depressed and anxious the following day after controlling for the prior day level of happiness, depression, and anxiety, respectively?

Methods

Procedure and Participants

The study procedure and materials (e.g., research proposal, consent forms, questionnaires and daily diary checklist) were approved by the Institutional Review Board of the university where the corresponding author was affiliated. A total of 70 middle school students in 8th grade were recruited in March 2014 from two classrooms at a public school in Gyeonggi-do. Participation was voluntary and anonymous. A written parental consent was obtained first by each of the homeroom teachers before youth assent was obtained. One parent from each household was asked to complete a short questionnaire providing information about monthly household income and parent education. Adolescent participants received an online link each evening via personal email address and/or mobile phone number that they provided, where they could log in to complete a daily diary checklist at the end of each day for 7 days. Data collection took place between the third week of March and the first week of April, 2014. Each participant received a bookstore coupon as a small token of appreciation for participating in this study.

A daily diary checklist consisted of items asking about experiences with family and friends and emotional and physical states each day. Participants included 35 girls and 35 boys in 8th grade. An average monthly household income had the following distribution: 5,000,000 Won or more ($n = 28$), between 3,000,000

Won and 4,999,999 Won ($n = 36$), and below 3,000,000 Won ($n = 6$). Seventy-six percent of the mothers ($n = 53$) and 83% of the fathers ($n = 58$) received at least two-year college education.

Daily Checklist Variables and Measures

Daily Grateful Mood. Students reported the level of grateful mood each day by indicating how grateful they felt throughout the given day on a five-point Likert type scale. The scale ranged from 0 = “Not at all” to 4 = “Very much”. Responses from each day were summed and a mean score was computed for each participant ($M = 2.31$, $SD = .87$, $n = 480$, Range = 0-4). The daily-level reliability computed by HLM was .70 in this study.

Daily Parental Emotional Support. Daily emotional support from parents was assessed separately for mother and father. Six items from the care scale of the Parental Bonding Instrument (Parker, Tupling, & Brown, 1979) were adapted for this study. The care scale was successfully used with Korean middle school students in You and Shon’s study (2015) that examined the relationship between adolescents’ social competence and Korean parents’ emotional support. In the present study, adolescents were asked to indicate for each parent to what extent their parent engaged each day in the following six behaviors on a five-point Likert type scale (0 = Not at all, 4 = Very much): “Today I felt close to my parent,” “Today I felt warmth from my parent,” “Today I felt understood by my parent,” “Today my parent enjoyed talking with me,” “Today he/she was a good listener,” and “Today he/she encouraged me.” All items each day were summed and a mean was computed for each parent as an indicator of daily parental emotional support for each participant (Mother: $M = 2.56$, $SD = .39$, $n = 480$, Range = 0-4, Father: $M = 2.41$, $SD = .39$, $n = 480$, Range = 0-4). The daily-level reliability computed by HLM was .81 for mother and .82 for father in this study.

Daily Psychological Well-Being. Each evening for the one week period adolescents reported on their feelings of depression, anxiety, and happiness on a 5-point scale ranging from 0 (not at all) to 4 (extremely). Depression and anxiety subscales of the Profile of Mood States (POMS) (Lorr & McNair, 1971) and a happiness scale devised from the POMS in Kiang, Yip, Gonzales-Backen, Witkow, & Fuligni (2006) were used. POMS has also been used in previous daily diary studies of psychological well-being

among Korean adolescents (Chung, Lee, & Yoo, 2015a, 2015b). Adolescents indicated the extent to which they experienced each day depressive feelings (items: “sad,” “hopeless,” “discouraged,”), anxious feelings (items: “on edge,” “unable to concentrate,” “uneasy,” “nervous”), and happiness (items: “joyful,” “happy,” “calm”). The mean scores of the items measured were calculated for each of these variables (Depression: $M = 1.14$, $SD = .92$, $n = 480$, Range = 0-4, Anxiety: $M = 1.27$, $SD = .85$, $n = 480$, Range = 0-4, Happiness: $M = 2.45$, $SD = .82$, $n = 480$, Range = 0-4). In this study, daily-level alpha coefficients indicated that each multiple-item measure possessed good internal consistency (depressive feelings $\alpha = .90$; anxious feelings $\alpha = .88$; happiness $\alpha = .92$).

Data Analysis Plan

Intraclass correlations (ICCs) indicate whether nesting factor accounts for enough variance to be worth running multilevel models. A rule of thumb in social science research is that ICC less than .10 is not worth running multilevel models (Snijders & Bosker, 2012). ICC in this study was .25, indicating that daily variation within person, as opposed to between-person factors, account for 25% of the variance observed in grateful mood within adolescent across the week. Thus, daily-level data were analyzed using hierarchical linear modeling (HLM) to account for the nested structure of the data (Raudenbush & Bryk, 2002), in which daily reports ($n = 480$) are nested within individuals ($n = 70$). Unit of analysis for level-1 was daily reports nested within each adolescent. First, same-day associations between emotional support from each parent and adolescent grateful mood were tested, controlling for the prior day level of grateful mood. The following Level 1 equation shows the basic model for the same day parental emotional support to grateful mood associations.

$$\text{Grateful Mood}_{ij} = b_{0j} + b_{1j}(\text{Grateful Mood}_{i-1}) + b_{2j}(\text{Father Emotional Support}_i) + e_{ij} \quad (1)$$

In Equation (1), gratitude on a given day (i) for a particular student (j) was modeled by each individual’s intercept (b_{0j}) and father emotional support (b_{2j}). Prior day grateful mood (b_{1j}) was included to parse out the effects of grateful mood from the previous day and to capture the unique effect of father emotional support on a given day. The error term in the equation represents unexplained

variance (e_{ij}). Equation (1) was modified by replacing father emotional support with mother emotional support for examining the same day association between mother emotional support and adolescent grateful mood.

Second, lagged-day associations between the prior day level of emotional support from each parent and adolescent grateful mood on a given day were tested, controlling for the prior day level of gratitude. The following Level 1 equation shows the basic model for the lagged day parental emotional support to grateful mood association.

$$\text{Grateful Mood}_{ij} = b_{0j} + b_{1j}(\text{Grateful Mood}_{t-1}) + b_{2j}(\text{Father Emotional Support}_{t-1}) + e_{ij} \quad (2)$$

In Equation (2), gratitude on a given day (i) for a particular student (j) was modeled by each individual's intercept (b_{0j}) and the previous day level of father emotional support (b_{2j}). Prior day grateful mood (b_{1j}) was included to parse out the effects of gratitude from the previous day and to capture the unique effect of father emotional support from the prior day. The error term in the equation represents unexplained variance (e_{ij}).

Lastly, same-day and lagged-day associations between adolescent grateful mood and each of the psychological well-being variables were tested, controlling for the prior day level of the well-being variable entered. The following Level 1 equations were used as the basic model for same-day (3) and lagged-day analyses (4).

$$\text{Happiness}_{ij} = b_{0j} + b_{1j}(\text{Happiness}_{t-1}) + b_{2j}(\text{Grateful Mood}_{t-1}) + e_{ij} \quad (3)$$

$$\text{Happiness}_{ij} = b_{0j} + b_{1j}(\text{Happiness}_{t-1}) + b_{2j}(\text{Grateful Mood}_{t-1}) + e_{ij} \quad (4)$$

The following Level 2 equations were mapped on to Level 1 equations to account for between-person effects. Error terms contributing to unexplained variance are represented by u_{0j} and u_{1j} .

$$(\text{Intercept}) b_{0j} = c_{00} + u_{0j} \quad (5)$$

$$(\text{Slope}) b_{1j} = c_{10} + u_{1j} \quad (6)$$

Results

Same-Day Association Between Emotional Support from Parent and Grateful Mood

Results (Table 1) showed that on days in which adolescents experienced more emotional support from their father than they typically did across the week, they experienced more grateful mood ($b = .54$, $SE = .11$, $p < .001$) than other days after controlling for the previous day's level of father support. A similar pattern was observed when emotional support from mother was entered as an independent variable ($b = .77$, $SE = .12$, $p < .001$).

Lagged Day Association Between Emotional Support from Parent and Grateful Mood

When the level of emotional support from father was higher than usual on a given day, adolescents reported being more grateful not only on the same day, but also the following day after controlling for the prior day level of father's emotional support ($b = .26$, $SE = .03$, $p < .05$) (Table 2). No significant lagged day effect was found for emotional support from mother ($b = .16$, $SE = .03$, $p = n.s.$).

Same-Day Association Between Grateful Mood and Psychological Well-Being

On days in which adolescents experienced more grateful mood

Table 1. Multilevel Modeling of Same Day Associations Between Parental Emotional Support and Adolescent Grateful Mood ($n = 480$)

Father	Grateful Mood b (SE)	Mother	Grateful Mood b (SE)
Intercept (b_0)	1.65(.12)***	Intercept (b_0)	1.52(.13)***
Gratitude Mood $_{(t-1)}$ (b_1)	.18(.05)**	Gratitude Mood $_{(t-1)}$ (b_1)	.14(.05)**
Father Emotional Support (b_2)	.54(.11)***	Mother Emotional Support (b_2)	.77(.12)***
Variance Component of Father Emotional Support	.05**	Variance Component of Mother Emotional Support	.04*

* $p < .05$, ** $p < .01$, *** $p < .001$ (Note: Subscripts: $(t-1)$ =one day prior)

Table 2. Multilevel Modeling of Lagged Day Associations Between Parental Emotional Support and Adolescent Grateful Mood ($n = 480$)

Father	Grateful Mood b (SE)	Mother	Grateful Mood b (SE)
Intercept (b_0)	1.92(.12)***	Intercept (b_0)	1.72(.13)***
Gratitude Mood $_{(t-1)}$ (b_1)	.20(.06)**	Gratitude Mood $_{(t-1)}$ (b_1)	.18(.06)**
Father Emotional Support $_{(t-1)}$ (b_2)	.26(.03)*	Mother Emotional Support $_{(t-1)}$ (b_2)	.17(.12)
Variance Component of Father Emotional Support $_{(t-1)}$.04*	Variance Component of Mother Emotional Support $_{(t-1)}$.04*

* $p < .05$, ** $p < .01$, *** $p < .001$ (Note: Subscripts: $(t-1)$ = one day prior)

Table 3. Multilevel Modeling of Same Day Associations Between Adolescent Grateful Mood and Daily Happiness, Anxiety, and Depression ($n = 480$)

	Daily Happiness b (SE)		Daily Anxiety b (SE)		Daily Depression b (SE)
Intercept (b_0)	.66(.12)***	Intercept (b_0)	1.89(.18)***	Intercept (b_0)	1.86(.19)***
Happiness $_{(t-1)}$ (b_1)	.30(.03)***	Anxiety $_{(t-1)}$ (b_1)	.28(.05)**	Depression $_{(t-1)}$ (b_1)	.25(.05)***
Grateful Mood(b_2)	.68(.03)***	Grateful Mood(b_2)	-.30(.06)***	Grateful Mood(b_2)	-.44(.06)***
Variance Component of Grateful Mood	.04**	Variance Component of Grateful Mood	.10***	Variance Component of Grateful Mood	.06*

* $p < .05$, ** $p < .01$, *** $p < .001$ (Note: Subscripts: $(t-1)$ = one day prior)

Table 4. Multilevel Modeling of Lagged Day Associations Between Adolescent Grateful Mood and Daily Happiness, Anxiety, and Depression ($n = 480$)

	Daily Happiness b (SE)		Daily Anxiety b (SE)		Daily Depression b (SE)
Intercept (b_0)	.58(.12)***	Intercept (b_0)	1.66(.18)***	Intercept (b_0)	1.64(.19)***
Happiness $_{(t-1)}$ (b_1)	.28(.03)***	Anxiety $_{(t-1)}$ (b_1)	.26(.05)**	Depression $_{(t-1)}$ (b_1)	.24(.05)***
Grateful Mood $_{(t-1)}$ (b_2)	.44(.03)**	Grateful Mood $_{(t-1)}$ (b_2)	-.25(.06)*	Grateful Mood $_{(t-1)}$ (b_2)	-.27(.06)*
Variance Component of Grateful Mood $_{(t-1)}$.04**	Variance Component of Grateful Mood $_{(t-1)}$.08***	Variance Component of Grateful Mood $_{(t-1)}$.06*

* $p < .05$, ** $p < .01$, *** $p < .001$ (Note: Subscripts: $(t-1)$ = one day prior)

than usual, they were also happier ($b = .68$, $SE = .03$, $p < .001$), less anxious ($b = -.30$, $SE = .06$, $p < .001$), and less depressed ($b = -.44$, $SE = .06$, $p < .001$), after controlling for the prior day levels of happiness, anxiety, and depression, respectively (Table 3).

Lagged Day Association Between Grateful Mood and Psychological Well-Being

Adolescents were also happier ($b = .44$, $SE = .03$, $p < .01$), less anxious ($b = -.25$, $SE = .06$, $p < .05$), and less depressed ($b = -.27$, $SE = .06$, $p < .05$) the following day after they experienced more grateful mood than usual (Table 4). It is worth noting that these lagged day associations were significant after controlling for the

prior day levels of happiness, anxiety, and depression, respectively.

Discussion

The present study examined the understudied concept of gratitude as a daily mood among Korean adolescents by using a daily diary method across seven days. Adolescents indeed experienced grateful mood on a daily basis, which showed a significant variance across days as a function of daily parental emotional support. Daily grateful mood was also closely related to adolescents' feelings of depression, anxiety, and happiness. Moreover, the micro-longitudinal design with repeated

measurements across time allowed for suggesting directionality between gratitude and psychological well-being with more confidence, which was not previously possible with cross-sectional data. In the following, the key findings from the present study and implications are discussed in more depth.

Even though gratitude is considered as an important virtue to possess for successful adulthood, little is known about what cultivates gratitude early on in life. Based on the evidence that family and parenting behaviors might be important for gratitude among adolescents (Bai & Jin, 2016; Gordon *et al.*, 2014; Lim *et al.*, 2015; Seplowitz, 2011), the present study expected parental emotional support to be associated with grateful mood in adolescents' daily lives. As expected, on days when adolescents perceived greater parental emotional support from mother or father than they typically did across the week, they rated their grateful mood to be higher than other days. Interestingly, with more emotional support from father, adolescents reported more grateful mood not only on that day, but also the following day. This finding is impressive given that it reflects the unique effect of father's emotional support on grateful mood the next day by parsing out the effect of prior day level of grateful mood. Previous research with Korean adolescents examined gratitude in relation to the affectionate aspect of only maternal parenting (e.g., Lim *et al.*, 2015). By offering evidence that daily parental emotional support, particularly from fathers, leads adolescents to experience more grateful mood in daily living, the present study deepens our understanding about what specific aspect of parenting behavior may be helpful for nurturing gratitude among adolescents. In particular, this finding suggests that interventions designed to foster gratitude among adolescents might benefit from including fathers as well. For instance, teaching fathers about various practical ways that they can show emotional support to their adolescent children in daily life might be helpful.

For mother's emotional support, on the other hand, the lagged day effect was not observed. There is evidence from previous research that Korean adolescents perceive their mothers are more emotionally responsive than their fathers (Doh, Kim, Park, & Hwang, 2005). Similarly, adolescents in this study reported a higher mean for emotional support across seven days from mothers ($M = 2.56$, $SD = .39$) than fathers ($M = 2.41$, $SD = .39$).

It suggests that for the current sample of adolescents, experiencing emotional support from father is relatively a less typical occurrence in their daily lives. One might speculate that while it might be the feeling of connection, warmth, and support from fathers that was associated with adolescents' grateful mood on a given day, it may also have been the relatively less prevalent nature of this positive experience that somehow influenced adolescents to remain grateful longer than their mothers' emotional support did. More research is needed to better understand the difference in the effect of daily emotional support between father and mother on adolescents' grateful mood in their daily lives. Overall, the results of this study suggest that fathers' emotional support is particularly crucial for adolescents' experience of gratitude. Many Korean fathers, however, are pressed for time due to high demands from workplace and less aware of how influential their emotional support can be for their children. A workplace-level policy that supports fathers to attend a fathering seminar, for instance, once a year during work hours might help them understand the importance of their role and acquire practical techniques that they can actually practice on a daily basis to convey emotional support to their children.

This study found that daily grateful mood was associated with daily psychological well-being on the same day and the following day with the prior day level of psychological well-being controlled. Adolescents were happier, less depressed and anxious, not only on days when they felt grateful, but also the day after. It confirms the previous research in support of the positive association of gratitude with psychological health and well-being (Ham *et al.*, 2011; McCullough *et al.*, 2002; Noh & Shin, 2008; Wood *et al.*, 2008). Moreover, by using repeated measurements across multiple days the present study was able to specify with more confidence that it is the grateful mood preceding psychological well-being rather than the other direction. As such, this finding offers evidence for the short-term benefits of gratitude for adolescents' daily psychological well-being, thus further highlighting the importance of nurturing gratitude in the daily context. Although this finding cannot be suggestive of causality due to non-experimental nature of the data, it provides more robust evidence for the role of gratitude in better psychological well-being on a daily basis, particularly among adolescents.

Overall, the present study broadens the horizon of research on

gratitude by examining gratitude as a daily mood rather than a dispositional trait (McCullough *et al.*, 2002; Wood *et al.*, 2008a) or an acute emotional reaction to a favor (McCullough *et al.*, 2001; Wood *et al.*, 2008b). Adolescents in this study did experience gratitude as a mood in varying degrees across days during the week. Also, the level of daily grateful mood significantly varied according to how much or less emotional support that they experienced from their parents on a daily basis. While this result highlights the important role that parents play in adolescents' grateful mood, emotionally supportive behaviors of fathers in particular appear promising for cultivating gratitude. Furthermore, the importance of cultivating gratitude in the daily context is found in its significant association with adolescents' daily psychological well-being. In this study, daily grateful mood on a given day accounted for the significant variance in adolescents' psychological well-being not only on the same day, but also the following day. It suggests that helping adolescents feel grateful on a daily basis might be effective for enhancing their daily psychological well-being. As such, interventions designed to help adolescents feel grateful might be useful. For instance, performing a daily ritual where adolescents reflect on things that they are thankful for, specifically in an emotionally supportive setting with parents, might be a good strategy for ensuring daily psychological well-being of adolescents. A policy that requires existing parenting courses to include guidelines for parents to engage in such activities with their children may be helpful.

Findings of this study should be interpreted in light of the following limitations. First, the generalizability of the findings is limited due to the use of convenient sampling in this study and a small sample size. Future research with a larger, more representative sample of adolescents from diverse age groups is needed to replicate and confirm the current findings. Second, it is possible that other variables in addition to parental emotional support might also be related to promoting gratitude among adolescents in daily lives. For fuller understanding of daily gratitude among adolescents, it might be worthwhile for future research to examine the role of other domains in adolescents' lives, such as school and peer, in relation to their daily experience of grateful mood.

Despite the limitations, the present study expands the current

understanding of gratitude by examining gratitude as a daily mood in a sample of adolescents. It is worth noting that emotional support of father has more enduring impact than that of mother on adolescents' daily experience of grateful mood, thus highlighting the important role of father in promoting gratitude among adolescents. Also, by using repeated measurements across seven days, this study adds to the previous body of research primarily based on cross-sectional data, offering insights into the temporal order in which parental emotional support influences grateful mood and grateful mood influences psychological well-being in adolescents' daily lives.

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