The Frequencies and Effects of Interpersonal Stress Coping with Different Types of Interpersonal Stressors in Friendships on Mental Health and Subjective Well-being among College Students

Hirokazu Taniguchi
Faculty of Education, Nagasaki University

Tsukasa Kato
Faculty of Sociology, Toyo University

Introduction

Stressors related to interpersonal relationships are called interpersonal stressors. Such stressors are one of the most frequently experienced stressors (Maybery & Graham, 2001), and are more detrimental to mental health than noninterpersonal stressors related to work, financial state and so on (Bolger, DeLongis, Kessler, & Schilling, 1989; Sheets & Craighead, 2014). Interpersonal stressors are generally divided into three types: interpersonal conflict, interpersonal blunders, and interpersonal friction (Hashimoto, 2005, 2006). Interpersonal conflict includes explicit conflict, quarreling, and discord. Interpersonal blunders indicate situations where difficulties were caused by one's own mistake. Interpersonal friction refers to situations where assertiveness is inhibited to avoid explicit interpersonal troubles with other people. As people grow up from childhood to adolescence, they face numerous adaptational demands (e.g., physical growth, changes in social roles, and family and school transition), and experience many interpersonal stressors in their daily lives (Seiffge-Krenke & Shulman, 1993). In addition, during adolescence, close relationships such as friendships and romantic relationships become strong influences on social and emotional development and psychosocial adaptation (Collins & Laursen, 2000; Laursen & Bukowski, 1997). With regard to friendships during adolescence, all of the three types of interpersonal stressors are positively associated with stress responses (Hashimoto, Taniguchi, & Tanaka, 2005; Taniguchi, Hashimoto, & Tanaka, 2005, 2006); interpersonal conflict is less often experienced (Hashimoto et al. 2005; Taniguchi et al., 2005); and interpersonal friction is more often experienced (Taniguchi et al., 2006). Moreover, there is a gender difference in interpersonal conflict, which males experience more frequently than females (Hashimoto et al., 2005; Hashimoto, Yoshida, Yazaki, Morizumi, Takai, & Oetzel, 2012; Taniguchi et al., 2005, 2006).

Coping with interpersonal stressors is called interpersonal stress coping. That coping is associated with both mental health problems such as depression, anxiety and loneliness, and subjective well-being such as relationship satisfaction, job satisfaction and happiness (Kato, 2006b, 2007a, 2008). Interpersonal stress coping has three prominent types: positive relationship-oriented coping, negative relationship-oriented coping, and postponed-solution coping (Kato, 2000, 2003). Positive relationship-oriented coping involves efforts to actively improve, maintain, and/or sustain relationships. Negative relationship-oriented coping includes attempts to actively damage, disrupt, and dissolve relationships. Postponed-solution coping refers to efforts to patiently wait for appropriate opportunities such as changes or improvements in the situation. With respect to coping with interpersonal stressors in friendships during adolescence, positive relationship-oriented coping increases both relationship satisfaction and depression and decreases loneliness; negative relationship-oriented coping increases both depression and loneliness and decreases relationship satisfaction; and postponed-solution coping increases relationship satisfaction and decreases both depression and loneliness (Kato, 2000, 2001, 2002, 2006a, 2006d). Furthermore, gender differences exist in positive relationship-oriented coping, which females use more frequently than males, and also in negative relationship-oriented coping, which males use more often than females (Kato, 2000).

A series of studies by Kato (2000, 2001, 2002, 2006a, 2006d) have examined interpersonal stress coping with a so-
called general interpersonal stressor, without considering different types of interpersonal stressors. However, as mentioned above, interpersonal stressors are classified into three types: interpersonal conflict, interpersonal blunders, and interpersonal friction (Hashimoto, 2005, 2006). Therefore, this study exploratively examined the frequencies of interpersonal stress coping with each of the three types of interpersonal stressors in friendships, and their relations to mental health problems (depression and loneliness) and subjective well-being (relationship satisfaction) among college students, taking gender differences into consideration.

Coping is generally defined as individuals’ constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised by them as taxing or exceeding their resources and as endangering their well-being (Lazarus & Folkman, 1984). There are two different ways of assessing coping strategies (Sasaki, 2006; Schwartz, Neale, Marco, Shiffman, & Stone, 1999). One approach treats coping as a situational or state variable, based on Lazarus & Folkman’s (1984) transactional model of stress and coping. The other approach regards coping as a dispositional or trait variable, assuming that coping is temporally stable. Considering that even situation/state-oriented researchers suggest some consistency in coping processes (Ptacek, Smith, Raffety, & Lindgren, 2008), these two approaches seem not necessarily mutually exclusive. In fact, dispositional coping is correlated with situational coping (Ptacek et al., 2008). In addition, dispositional rather than situational coping predicts future mental health status among adolescents (Sasaki & Yamasaki, 2005). Therefore, this study, just as Kato’s studies (2000, 2014, 2015a), examined interpersonal stress coping as a dispositional or trait variable.

**Methods**

**Participants and Procedures**
A total of 951 college students (539 males, 405 females and 7 unidentified; $M_{age} = 18.78$ years, $SD = 1.03$) participated in the study. They were informed orally about the purpose of this study, their rights to decline or withdraw participation, and their confidentiality. The survey was administered during lectures.

**Measures**

*Interpersonal stressors in friendships and interpersonal stress coping.* The Interpersonal Stress-Coping Inventory (ISI; Kato, 2000, 2003) was used to assess the three interpersonal stress coping with each of the three types of interpersonal stressors in friendships. The ISI has three subscales: positive relationship-oriented coping (16 items), negative relationship-oriented coping (10 items), and postponed-solution coping (8 items). Participants were given six concrete situations representing one of the three types of interpersonal stressors in friendships (interpersonal conflict, interpersonal blunders, and interpersonal friction). These six situations are identical to the six items that compose one type of the three subscales of the Scale of Interpersonal Stressor (SIS; Hashimoto, 2005, 2006). Participants were then asked to answer the ISI regarding how they tended to think and behave if they would encounter these situations in their daily lives. Answers ranged from *not true* (1) to *very true* (4). A total of 326 students rated coping with interpersonal conflict; 319 rated coping with interpersonal blunders; and 306 rated coping with interpersonal friction. The total item score was calculated for each of the three subscales of the ISI. The alpha reliability was .81 to .86 for positive relationship-oriented coping, .82 to .83 for negative relationship-oriented coping, and .80 to .85 for postponed-solution coping across three interpersonal stressors.

*Depression.* The Japanese version of the Center for Epidemiologic Studies Depression Scale (Shima, Shikano, Kitamura, & Asai, 1985) was used to assess depressive symptoms. Participants rated their mental and physical conditions in the past week on a 4-point scale ranging from *not true* (1) to *very true* (4). The total score for all items was calculated and used as the depression score. A higher score indicates a higher tendency of depression. The alpha reliability was .89.

*Loneliness.* The Japanese version of the Revised UCLA Loneliness Scale (Moroi, 1991) was used. Participants rated the loneliness they felt in the past week on a 4-point scale ranging from *never* (1) to *frequently* (4). A higher score reflects a higher degree of loneliness. The alpha reliability was .90.

*Relationship Satisfaction.* The two-item scale developed by Nakamura (1991) was used. Participants rated the extent to which they were satisfied with the relationships with their friends and the degree to which the relationships met their needs. Each item was rated on a 7-point scale ranging from *not at all* (1) to *extremely* (7). The total score for the two items was calculated and used as the relationship satisfaction score. A higher score indicates a higher level of relationship satisfaction. The alpha reliability was .90.

**Results**

The means and standard deviations of interpersonal stress coping are shown separately for each gender and interpersonal stressor in Table 1. To examine differences in the frequencies of interpersonal stress coping by gender and interpersonal stressors, a series of $2 \times 3$ between-subject ANOVAs were conducted with the three types of
interpersonal stress coping as dependent variables and gender and interpersonal stressors as independent variables. Results of the ANOVAs indicated significant main effects of both gender and interpersonal stressors on positive relationship-oriented coping ($F_{(1,904)}=4.39$, $p<.05$, $\eta^2_{p}=.01$; $F_{(2,904)}=32.01$, $p<.01$, $\eta^2_{p}=.07$, respectively) and negative relationship-oriented coping ($F_{(1,911)}=10.76$, $p<.01$, $\eta^2_{p}=0.01$; $F_{(2,911)}=30.25$, $p<.01$, $\eta^2_{p}=0.06$, respectively). Only the main effect of interpersonal stressors was significant for postponed-solution coping ($F_{(2,913)}=11.34$, $p<.01$, $\eta^2_{p}=0.02$). The Bonferroni post-hoc tests found the following results: positive relationship-oriented coping was rated higher by females ($M=20.17$) than males ($M=19.50$) and was scored highest in interpersonal blunders ($M=21.99$), followed by interpersonal friction ($M=20.31$) and interpersonal conflict ($M=17.18$); negative relationship-oriented coping was rated higher by males ($M=9.34$) than females ($M=8.43$) and was scored highest in interpersonal conflict ($M=10.67$), followed by interpersonal friction ($M=8.61$) and interpersonal blunders ($M=7.51$); and postponed-solution coping was scored lowest in interpersonal blunders ($M=9.32$).

Table 2 presents the zero-order correlations between interpersonal stress coping and each dependent variable (depression, loneliness, and relationship satisfaction) separately by gender and interpersonal stressors. The relations between interpersonal stress coping and each dependent variable had almost the same correlation coefficients across three interpersonal stressors. Specifically, positive relationship-oriented coping was significantly and negatively correlated with loneliness ($r_s=-.19$ to -.46, $p<.05$ to .01) and was significantly and positively associated with relationship satisfaction ($r_s=.18$ to .40, $p<.05$ to .01); and negative relationship-oriented coping was significantly and positively correlated with depression and loneliness ($r_s=.25$ to .43, $p<.05$ to .01; $r_s=.32$ to .53, $p<.05$ to .01); and postponed-solution coping was significantly and negatively correlated with loneliness ($r_s=-.17$ to -.32, $p<.05$ to .01) and was significantly and positively associated with relationship satisfaction ($r_s=.24$ to .46, $p<.05$ to .01).
all $p < .01$, respectively). As noteworthy exceptions, the relation between negative relationship-oriented coping and relationship satisfaction, and relation between postponed-solution coping and depression, respectively, varied depending on interpersonal stressors. In the former case, negative relationship-oriented coping was (marginally) significantly and negatively correlated with relationship satisfaction for interpersonal conflict and interpersonal friction ($r = -.28$ to $-.32$, all $p < .01$; $r = -.19$ to $-.31$, $p < .06$ to .01, respectively). In the latter case, postponed-solution coping was (marginally) significantly and negatively correlated with depression only for interpersonal conflict ($r = -.14$ to $-.18$, $p < .09$ to .05). Moreover, the relation between postponed-solution coping and relationship satisfaction varied depending on both interpersonal stressors and gender. Concretely, postponed-solution coping was significantly and positively correlated with relationship satisfaction for interpersonal conflict and interpersonal blunders among males ($r = .20$, $p < .05$; $r = .18$, $p < .05$, respectively), and for interpersonal friction among females ($r = .25$, $p < .01$)

**Discussion**

The results of gender found that males used negative relationship-oriented coping more frequently than females, and that females used positive relationship-oriented coping more frequently than males, which are consistent with the previous studies (Kato, 2000, 2003, 2007a, 2008). These results suggest that males might be more likely to cut off stressful relationships, while females might be more likely to repair such relationships. The results on interpersonal stressors showed that positive relationship-oriented coping was used most often in interpersonal blunders; negative relationship-oriented coping was used most often in interpersonal conflict; and postponed-solution coping was used least often in interpersonal blunders. These results suggest that after people troubled their friends, they seem to feel sorry and immediately make efforts to restore the relationships without putting aside the problem temporarily, but that when their friends troubled themselves, they seem to feel anger and try to break the relationships.

The links between interpersonal stress coping and each dependent variable were almost consistent, regardless of interpersonal stressors. Specifically, consistent with Kato’s studies (2000, 2001, 2002, 2006a, 2006d), positive relationship-oriented coping was significantly and negatively correlated with loneliness, and was significantly and positively associated with relationship satisfaction; and negative relationship-oriented coping was significantly and positively correlated with depression and loneliness. However, there are some notable exceptions as follows.

First, negative relationship-oriented coping was (marginally) significantly and negatively correlated with relationship satisfaction for interpersonal conflict and interpersonal friction; meanwhile, such coping was uncorrelated with relationship satisfaction for interpersonal blunders. Interpersonal blunders include situations such as meddling with one’s partner’s private affairs, being overly-dependent on his/her partner, and getting in the way of his/her partner’s work, study, and/or leisure. Under these circumstances, some strategies of negative relationship-oriented coping (e.g., trying to keep an appropriate distance from one’s partner) seems to be beneficial rather than harmful to relationship satisfaction, although normally, negative relationship-oriented coping decreases relationship satisfaction. This might be why negative relationship-oriented coping was uncorrelated with relationship satisfaction only for interpersonal blunders.

Second, postponed-solution coping was (marginally) significantly and negatively correlated with depression for interpersonal conflict, whereas such coping was uncorrelated with depression for interpersonal blunders and interpersonal friction. Postponed-solution coping gives people the time necessary to control their emotions, to see their own situation from different perspectives, and to understand the situation better. Thus, such coping enables people to behave calmly in the stressful situation and to accept the circumstance, and the calm and receptive behavior, in turn, reduces their psychological distress (Kato, 2013, 2014, 2015a, 2015b). For instance, people might be excited immediately after a quarrel but could restore their mental balance by taking time, and, as a result, they could select the most effective strategy with the situation (Kato, 2015b). Unlike interpersonal blunders and interpersonal friction, which stem from self-criticism and concerns regarding one’s own treatment toward his/her partner (Hashimoto, Mojaverian, & Kim, 2012), interpersonal conflict (explicit conflict, quarreling, or discord) is caused partly by factors beyond one’s control such as his/her partner's personality and value. Therefore, for interpersonal conflict, postponed-solution coping, which promotes calm and receptive behaviors, might have a pronounced stress-reducing effect.

Third, postponed-solution coping was significantly and positively correlated with relationship satisfaction for interpersonal conflict and interpersonal blunders among males, and for interpersonal friction among females. Males tend to have non-close and independent friendships, while females tend to have close and interdependent friendships during adolescence (Naganuma & Ochiai, 1998). In addition, postponed-solution coping is positively associated with relationship satisfaction in non-close relationships;
meanwhile, such coping is unrelated to relationship satisfaction in close friendships (Kato, 2006c). That might be why the positive relations between postponed-solution coping and relationship satisfaction were found for interpersonal conflict and interpersonal blunders only among males. Interpersonal friction is less experienced in close rather than non-close friendships (Hashimoto et al., 2012). However, once such stressor has occurred in close friendships, the stressor seems to pose a relatively great threat to the relationships (Kato, 2007b). In addition, the appraisal of threat increases the use of postponed-solution coping (Kato, 2007c). Consequently, the positive relation between postponed-solution coping and relationship satisfaction might be prominent for interpersonal friction only among females, who tend to have close friendships. Future studies would need to carefully examine the interaction of stressor and gender on the relation between postponed-solution coping and relationship satisfaction.

This study focused on dispositional or trait coping. Based on another approach, situational or state coping, future research needs to examine the process in which situational coping with interpersonal stressors experienced for a specific period of time influence influences mental health problems or subjective well-being for the same period of time.

In this paper, Tsukasa Kato, the chief editor of this journal, is listed as a study coauthor. Therefore, instead of him, Naoya Tabata, the associate editor, managed all the peer review process, including evaluating the suitability of this manuscript for peer review, selecting reviewers, assessing their comments, and making editorial decisions.

References

Bolger, N., DeLongis, A., Kessler, R. C., & Schilling, E. A. (1989). Effects of daily stress on negative mood. *Journal of Personality and Social Psychology, 57*, 808–818.

Collins, W. A., & Laursen, B. (2000). Adolescent relationships: The art of fugue. In C. Hendrick & S. S. Hendrick (Eds.), *Close relationships: A sourcebook* (pp. 59–69). Thousand Oaks, CA: Sage.

Hashimoto, T. (2005). Development of the new scale of interpersonal stressor. *Studies in Humanities: Annual Reports of Departments of Sociology and Language and Literature, 5*, 45–71. (In Japanese with English abstract)

Hashimoto, T. (2006). Interpersonal relationships conducive to stress. In H. Taniguchi & Y. Fukuoka (Eds.), *Psychology on interpersonal relationships and adaptation: The theory and practice of stress coping* (pp. 1–18). Kyoto: Kitaohji Shobo. (In Japanese)

Hashimoto, T., Mojaverian, T., & Kim, H. S. (2012). Culture, interpersonal stress, and psychological distress. *Journal of Cross-Cultural Psychology, 43*, 527–532.

Hashimoto, T., Taniguchi, H., & Tanaka, K. (2005). Social support and interpersonal stress among school children (2): A study of high school students. *Paper presented at the 69th Annual Convention of the Japanese Psychological Association* (Tokyo), 212. (In Japanese)

Hashimoto, T., Yoshida, T., Yazaki, Y., Morizumi, S., Takai, J., & Oetzel, J. G. (2012). A cross-cultural comparison of interpersonal stress between Japan and the United States: Featuring relational closeness and social skills. *Japanese Journal of Experimental Social Psychology, 51*, 91–103. (In Japanese with English abstract)

Kato, T. (2000). Construction of the interpersonal stress-coping inventory for undergraduates. *Japanese Journal of Educational Psychology, 48*, 225–234. (In Japanese with English abstract)

Kato, T. (2001). Interpersonal stress. *Japanese Journal of Educational Psychology, 49*, 295–304. (In Japanese with English abstract)

Kato, T. (2002). The role of the social interaction in the interpersonal stress process. *Japanese Journal of Experimental Social Psychology, 41*, 147–154. (In Japanese with English abstract)

Kato, T. (2003). Factorial validity of the interpersonal stress-coping inventory. *Journal of the Literary Association of Kwansei Gakuin University, 52*, 56–72. (In Japanese)

Kato, T. (2006a). Coping behavior with interpersonal stress, interpersonal conflict strategy, and mental health: Examining the validation of the interpersonal stress-coping inventory. *Journal of Contemporary Social Sciences, 4*, 3–9. (In Japanese)

Kato, T. (2006b). Coping with interpersonal stress. In H. Taniguchi & Y. Fukuoka (Eds.), *Psychology on interpersonal relationships and adaptation: The theory and practice of stress coping* (pp. 19–38). Kyoto: Kitaohji Shobo. (In Japanese)

Kato, T. (2006c). Role of friendship goals in the processes of interpersonal stress among college students. *Japanese Journal of educational Psychology, 54*, 312–321. (In Japanese with English abstract)

Kato, T. (2006d). Role of hope and coping behavior in interpersonal stress. *Japanese Journal of Health Psychology, 19*, 25–36. (In Japanese with English abstract)

Kato, T. (2007a). Coping with interpersonal stress. Kyoto: Nakanishiya Shuppan. (In Japanese)

Kato, T. (2007b). Relationship between intimacy with friends and processes of interpersonal stress among college students. *Japanese Journal of Social Psychology, 23*, 152–161. (In Japanese with English abstract)

Kato, T. (2007c). Relationships between cognitive appraisal, stress coping, and stress-related emotions in interpersonal
situations. *Japanese Journal of Health Psychology*, 20, 18–29. (In Japanese with English abstract)

Kato, T. (2008). *Handbook of interpersonal stress coping: How to cope with interpersonal stress*. Kyoto: Nakanishiya Shuppan. (In Japanese)

Kato, T. (2013). Assessing coping with interpersonal stress: Development and validation of the Interpersonal Stress Coping Scale in Japan. *International Perspectives in Psychology: Research, Practice, Consultation*, 2, 100–115.

Kato, T. (2014). Relationship between coping with interpersonal stressors and depressive symptoms in the United States, Australia, and China: A focus on reassessing coping. *PLoS ONE*, 9(10), e109644. doi:10.1371/journal.pone.0109644.

Kato, T. (2015a). Coping with workplace interpersonal stress among Japanese employees. *Stress and Health*, 31, 411–418.

Kato, T. (2015b). Impact of coping with interpersonal stress on the risk of depression in a Japanese sample: A focus on reassessing coping. *SpringerPlus*, 4, 319.

Laursen, B., & Bukowski, W. M. (1997). A developmental guide to the organisation of close relationships. *International Journal of Behavioral Development*, 21, 747–770.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer Publishing Company.

Maybery, D. J., & Graham, D. (2001). Hassles and uplifts: Including interpersonal events. *Stress and Health*, 17, 91–104.

Moroi, K. (1991). Dimensions of the revised UCLA Loneliness Scale. *Studies in Humanities: Annual Reports of Departments of Sociology and Humanities*, 42, 23–31. (In Japanese)

Naganuma, K., & Ochiai, Y. (1998). Friendship in adolescence from the view point of association. *Japanese Journal of Adolescent Psychology*, 10, 35–47. (In Japanese with English abstract)

Nakamura, M. (1991). A study on the determinants of love styles and relational evaluations in heterosexual involvement of college students. *Japanese Journal of Experimental Social Psychology*, 31, 132–146. (In Japanese with English abstract)

Ptacek, J. T., Smith, R. E., Raffety, B. D., & Lindgren, K. P. (2008). Coherence and trans situational generality in coping: The unity and the diversity. *Anxiety, Stress, & Coping*, 21, 155–172.

Sasaki, M. (2006). Dispositional and situational coping, and adaptation. In H. Taniguchi & Y. Fukuoka (Eds.), *Psychology on interpersonal relationships and adaptation: The theory and practice of stress coping* (pp. 39–52). Kyoto: Kitaohji Shobo. (In Japanese)

Sasaki, M., & Yamasaki, K. (2005). Dispositional and situational coping and mental health status of university students. *Psychological Reports*, 97, 797–809.

Schwartz, J. E., Neale, J., Marco, C., Shiffman, S. S., & Stone, A. A. (1999). Does trait coping exist? A momentary assessment approach to the evaluation of traits. *Journal of Personality and Social Psychology*, 77, 360–369.

Seiffge-Krenke, I., & Shulman, S. (1993). Stress, coping and relationships in adolescence. In S. Jackson & H. Rodriguez-Tome (Eds.), *Adolescence and its social worlds* (pp. 169–196). Hove, England: Lawrence Erlbaum Associates.

Sheets, E. S., & Craighead, W. E. (2014). Comparing chronic interpersonal and noninterpersonal stress domains as predictors of depression recurrence in emerging adults. *Behaviour Research and Therapy*, 63, 36–42.

Shima, S., Shikano, T., Kitamura, T., & Asai, M. (1985). New self-rating scales for depression. *Clinical Psychiatry*, 27, 717–723. (In Japanese)

Taniguchi, H., Hashimoto, T., & Tanaka, K. (2005). Social support and interpersonal stress among school children (1): A study of junior high school students. *Paper presented at the 69th Annual Convention of the Japanese Psychological Association* (Tokyo), 211. (In Japanese)

Taniguchi, H., Hashimoto, T., & Tanaka, K. (2006). Social support and interpersonal stress among college students. *Paper presented at the 70th Annual Convention of the Japanese Psychological Association* (Fukuoka), 276. (In Japanese)
This study examined the frequencies and effects of three kinds of interpersonal stress coping (positive relationship-oriented, negative relationship-oriented, and postponed-solution coping) with each of the three types of interpersonal stressors in friendships (interpersonal conflict, interpersonal blunders, and interpersonal friction) on mental health and subjective well-being. Participants were 951 college students. Positive relationship-oriented coping was used most frequently in interpersonal blunders; negative relationship-oriented coping was used most often in interpersonal conflict; and postponed-solution coping was used least frequently in interpersonal blunders. The associations between each type of interpersonal stress coping and each dependent variable (depression, loneliness, and relationship satisfaction) were almost constant across the three interpersonal stressors.

Key words: interpersonal stressors, interpersonal stress coping, depression, loneliness, relationship satisfaction