

Association of social support with gratitude and sense of coherence in Japanese young women: a cross-sectional study

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Purpose: Recent studies have shown that perceived social support is associated with gratitude and sense of coherence, but evidence for this concept remains scarce. In the present study, we investigated relationships between social support, gratitude, and sense of coherence, focusing on the construct of and source of social support among young women.

Methods: The study was conducted in 2014 in Japan. Participants comprised 208 female university students (aged 19.9 ± 1.1 years), who completed a self-administered anonymous questionnaire regarding perceived social support, gratitude, and sense of coherence.

Results: Emotional and instrumental social support from acquaintances were found to be lower than those from family and friends. Gratitude was positively correlated with all forms of social support except instrumental social support from acquaintances. However, sense of coherence was positively correlated with both emotional and instrumental social support from family and only emotional social support from acquaintances. Multiple regression analysis showed that emotional support from family and emotional support from acquaintances were positively associated with gratitude whereas emotional support from family was associated with sense of coherence.

Conclusion: These results indicate that emotional social support from family was related to both gratitude and sense of coherence.

Keywords: social support, gratitude, sense of coherence, well-being, female

Introduction

Social support is one's perception or actual experience that they are cared for and valued by others and that one is part of a social network that can be called upon in times of need.^{1,2} Perceived social support has received much attention as a resource for coping with stress.³ In particular, perceived social support has been shown to indirectly and/or directly reduce one's stress, thereby improving one's mental health.⁴ In addition, social support has been shown to comprise both emotional support and instrumental support.⁵⁻⁸ Instrumental support refers to tangible assistance, such as services, financial assistance, and specific aid or goods.² On the other hand, emotional support refers to warmth and nurturance toward another individual and reassuring a person that they are a valuable person for whom others care.² Moreover, resources of social support, such as family, friends, and acquaintances, are important factors.^{9,10} Therefore, these support types and resources should be taken into account when investigating their role in social support.

Sense of coherence (SOC) is a concept oriented toward causes of health rather than causes of illness,¹¹ and includes confidence in one's self, environmental support, and

future.^{11,12} Particularly, SOC is composed of three interrelated dimensions including comprehensibility, manageability, and meaningfulness.¹³ Additionally, SOC is considered to be a personal resource that guides an individual's reactions to stressful situations.¹⁴ Furthermore, SOC is evaluated as a fundamental theory of health promotion,¹⁵ and is reported to be associated with health behaviors^{16–18} and well-being.^{19–21} Additionally, a higher SOC has been found to be associated with higher social support scores.^{22–24} However, both construct of and source of social support have not been considered when analyzing the relationship between social support and SOC.

On the other hand, gratitude is also known to promote health and well-being. Gratitude is a cognitive–affective state that is typically associated with one's perception that they have received a personal benefit that was not intentionally sought after, deserved, or earned, but was rather the result of the good intentions of another person,²⁵ and gratitude is associated with well-being.²⁶ Increased feelings of gratitude have been positively associated with increased social support.^{25,27,28} Additionally, gratitude appears to directly foster social support, and to protect people from stress and depression.²⁹ However, in a similar fashion to the relationship between social support and SOC, both the construct of and the source of social support have not been considered in the analysis of the relationship between social support and gratitude.

In the present study, we investigated relationships between social support, gratitude, and SOC, focusing on the construct of and source of social support among young women.

Methods

Participants

We conducted a survey using an anonymous, self-administered questionnaire during women's university classes in 2014. Participants were provided no remuneration. The questionnaires were delivered to all attendees (230 students) and then collected after completion. From a total of 229 female students, 208 students gave valid responses. Thus, the response rate, which was calculated by dividing the number of valid responses by the number of delivered questionnaires, was 90.8%. ($n = 208$ women, 19.9 ± 1.1 years). All participants gave informed consent, and the study was approved by the ethics committee of Kyoto Women's University.

Measurement

Gratitude

Gratitude was measured using the Japanese version of the Gratitude Questionnaire,³⁰ which was originally developed

by McCullough and colleagues (GQ-6).³¹ The Japanese version of the GQ-6 consists of six items, each of which is rated along a 7-point Likert-type response scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Both the validity and reliability of the Japanese version of the GQ-6 were examined, which showed that the scale was composed of one factor with five items except for "Long amounts of time can go by before I feel grateful to something or someone."³⁰ Cronbach's α coefficient was 0.76 for five items and 0.63 for six items in the present sample. Therefore, five items were used for analysis in the current study.

Sense of coherence

Sense of coherence was measured using the Japanese version of the 13-item SOC (SOC-13),³² which is the short form of the 29-item SOC. The original 13- and 29-item SOC were developed by Antonovsky,^{12,13} and the validity and reliability of the Japanese version of the SOC-13 has been evaluated by Togari et al.³³ The Japanese version of the SOC-13 is rated along a 7-point Likert-type response scale, ranging from 1 to 7. The sum score range of the SOC-13 was from 13 to 91 points. Higher SOC indicated stronger SOC. Cronbach's α coefficient was 0.76 in the current sample.

Perceived social support

Perceived social support from family, friends, and acquaintances were measured using the Perceived Social Support Questionnaire (PSSQ), which was developed by Fukuoka and Hashimoto.³⁴ Acquaintances are people who are known but not considered close friends. The PSSQ consists of six items for emotional support and six items for instrumental support. Each item is rated along a 5-point Likert-type response scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores reflect greater perceived support. Cronbach's α coefficient was 0.88 for social support from family, 0.84 for social support from friends, and 0.91 for social support from acquaintances in the current sample.

Statistical analysis

Descriptive analyses were conducted to summarize the measured scores. One-way analysis of variance was used to assess the differences between emotional social support from family, emotional social support from friends, and emotional social support from acquaintances. Moreover, it was used to assess differences between instrumental social support from family, from friends, and from acquaintances. The Bonferroni test was used for multiple comparisons. Pearson's correlation coefficients were calculated to confirm the mutual

relationships among gratitude, social support, and SOC. A multiple linear regression analysis was used to investigate the association between SOC, gratitude, and social support. Data were analyzed using SPSS® Version 24 (IBM, Tokyo, Japan). A p -value less than 0.05 was considered to be statistically significant.

Results

Means, standard deviations, minimum values, and maximum values for gratitude, SOC, and social support are shown in Table 1. Emotional and instrumental social support from family, from friends, and from acquaintances were significantly different. A post hoc test found that emotional social support from friends was significantly higher than that from family or acquaintances, and that from family was significantly higher than that from acquaintances. Instrumental social support from family was significantly higher than that from friends or acquaintances, and that from friends was significantly higher than that from acquaintances.

Table 2 shows Pearson's correlation coefficients between gratitude, SOC, and social support. Gratitude was positively correlated with SOC ($r = 0.302, p < 0.001$), emotional social

support from family ($r = 0.310, p < 0.001$), instrumental social support from family ($r = 0.234, p = 0.001$), emotional social support from friends ($r = 0.251, p < 0.001$), instrumental social support from friends ($r = 0.220, p = 0.001$), and emotional social support from acquaintances ($r = 0.168, p = 0.015$). For SOC, a positive correlation was found with emotional social support from family ($r = 0.292, p < 0.001$), instrumental social support from family ($r = 0.213, p = 0.002$), and emotional social support from acquaintances ($r = 0.152, p = 0.028$).

Table 3 shows the results of multiple linear regression analysis between social support and gratitude. Emotional social support from family was significantly positively associated with gratitude ($\beta = 0.193, p = 0.019$). Emotional social support from acquaintances was significantly positively associated with gratitude ($\beta = 0.220, p = 0.030$).

Table 4 shows the results of multiple linear regression analysis between social support and SOC. Emotional social support from family was significantly positively associated with SOC ($\beta = 0.236, p = 0.005$).

Discussion

We investigated the relationships between gratitude, SOC, and social support from family and acquaintances. The main findings were that gratitude was positively correlated with all social support types with the exception of instrumental social support from acquaintances. Furthermore, SOC was found to be positively correlated with emotional and instrumental

Table 1 Participant characteristics

	Mean	SD	Minimum	Maximum
Gratitude	29.1	3.4	18	35
SOC	47.0	9.2	20	72
SC-FM-EM*	25.6	5.0	6	30
SC-FM-IS†	28.3	2.4	13	30
SC-FR-EM‡	26.5	3.4	12	30
SC-FR-IS§	21.4	4.0	8	30
SC-AQ-EM#	15.5	5.6	6	30
SC-AQ-IS¶	12.4	4.6	6	28

Notes: *Significantly different among SC-FM-EM, SC-FR-EM, and SC-AQ-EM ($p < 0.05$, one-way analysis of variance). †Significantly different among SC-FM-IS, SC-FR-IS, and SC-AQ-IS ($p < 0.05$, one-way analysis of variance). ‡Significantly different from SC-FM-EM ($p < 0.05$, Bonferroni test for post hoc test). §Significantly different from SC-FR-EM ($p < 0.05$, Bonferroni test for post hoc test). ¶Significantly different from SC-FM-IS ($p < 0.05$, Bonferroni test for post hoc test). #Significantly different from SC-FR-IS ($p < 0.05$, Bonferroni test for post hoc test).

Abbreviations: SD, standard deviation; SOC, sense of coherence; SC-FM-EM, emotional social support from family; SC-FM-IS, instrumental social support from family; SC-FR-EM, emotional social support from friends; SC-FR-IS, instrumental social support from friends; SC-AQ-EM, emotional social support from acquaintances; SC-AQ-IS, instrumental social support from acquaintances.

Table 2 Pearson's correlation coefficients between gratitude, SOC, and social support

	SC-FM-EM	SC-FM-IS	SC-FR-EM	SC-FR-IS	SC-AQ-EM	SC-AQ-IS
Gratitude	0.310*	0.234*	0.251*	0.220*	0.168*	0.053
SOC	0.292*	0.213*	0.030	0.115	0.152*	0.093

Note: * $p < 0.05$ (Pearson's correlation coefficient).

Abbreviations: SOC, sense of coherence; SC-FM-EM, emotional social support from family; SC-FM-IS, instrumental social support from family; SC-FR-EM, emotional social support from friends; SC-FR-IS, instrumental social support from friends; SC-AQ-EM, emotional social support from acquaintances; SC-AQ-IS, instrumental social support from acquaintances.

Table 3 Association between gratitude and social support

	β	p -value
SC-FM-EM	0.193	0.019
SC-FM-IS	0.044	0.586
SC-FR-EM	0.101	0.201
SC-FR-IS	0.137	0.104
SC-AQ-EM	0.220	0.030
SC-AQ-IS	-0.191	0.076

Abbreviations: β , standard coefficient in multiple linear regression analysis; SC-FM-EM, emotional social support from family; SC-FM-IS, instrumental social support from family; SC-FR-EM, emotional social support from friends; SC-FR-IS, instrumental social support from friends; SC-AQ-EM, emotional social support from acquaintances; SC-AQ-IS, instrumental social support from acquaintances.

Table 4 Association between SOC and social support

	β	p-value
SC-FM-EM	0.236	0.005
SC-FM-IS	0.090	0.280
SC-FR-EM	-0.129	0.110
SC-FR-IS	0.087	0.316
SC-AQ-EM	0.124	0.231
SC-AQ-IS	-0.021	0.851

Abbreviations: SOC, sense of coherence; β , standard coefficient in multiple linear regression analysis; SC-FM-EM, emotional social support from family; SC-FM-IS, instrumental social support from family; SC-FR-EM, emotional social support from friends; SC-FR-IS, instrumental social support from friends; SC-AQ-EM, emotional social support from acquaintances; SC-AQ-IS, instrumental social support from acquaintances.

social support from family and emotional social support from acquaintances. In addition, multiple regression analysis showed that both emotional support from family and emotional support from acquaintances were positively associated with gratitude whereas only emotional support from family was associated with SOC.

Participants perceived more emotional and instrumental social support from family and friends than those from acquaintances. These results indicate that family and friends are important people who are sources of social support. Previously, family and friends were identified as related factors for psychological well-being.³⁵ In addition, support from friends has been found to have a strong relationship with feelings of well-being.³⁶⁻³⁸ These tendencies are consistent with the present results.

Second, social support was positively associated with both gratitude and SOC. Increased feelings of gratitude have been found to be positively associated with increased social support, healthy interpersonal goals, and interpersonal connection.^{25,27,28} Gratitude has been shown to have direct and indirect effects on active coping styles, social support, and well-being of undergraduates.³⁹ However, Vogt et al reported that social support was positively correlated with SOC.⁴⁰ Kase et al reported that support was positively associated with SOC-13 scores.⁴¹ These results show that the same relationship exists between social support and gratitude or SOC. However, in the present results, gratitude was positively correlated with all social support types except for instrumental social support from acquaintances, whereas SOC was positively correlated with emotional and instrumental social support from family and emotional social support from acquaintances. The results of multiple regression analysis in the present study support these findings. However, the reason for these results remains unclear. Gratitude has previously been associated with positive emotion.^{31,42} According to

the broaden-and-build theory, positive emotions broaden people's thought-action repertoires, resulting in an increase in personal physical, intellectual, social, and psychological resources.⁴³⁻⁴⁵ Furthermore, gratitude is essentially considered a relational emotion.⁴⁶ Thus, gratitude may have a stronger relationship with social support than SOC in the present study.

In addition, multiple regression analysis showed that emotional social support from family was positively associated with gratitude and SOC. Support from friends' scores were positively associated with SOC-13 scores in men, and support from family scores were positively associated with SOC-13 scores in women in Kase et al's study.⁴¹ Furthermore, women are known to seek more emotional support than men in anger, sadness, or joy episodes.⁴⁷ These results are consistent with the present findings. Conversely, Pallant and Lae reported that SOC was positively associated with both instrumental and emotional social support in women.²¹ Thus, more detailed study is needed on these aspects.

Finally, gratitude was positively correlated with SOC in the present study. Previously, few studies examined the relationship between gratitude and SOC. Gratitude has been reported to possibly have a reciprocally supportive interaction with SOC,⁴⁸ which is consistent with the present results.

In addition, in the present study, social support was positively associated with both gratitude and SOC. Gratitude was demonstrated by Wood et al to interact with social support, and the two were suggested to reciprocally promote each other.²⁹ On the other hand, the emotion of gratitude draws attention to the aid that people receive in everyday life.⁴⁹ In addition, generalized resistance resources such as social support provide an individual with coherent life experiences and, therefore, build SOC over time.¹¹ Moreover, Lin and Yeh reported that gratitude may influence well-being through influencing coping styles and social support.³⁹ From these results, gratitude may enhance SOC through social support, but detailed studies further investigating this relationship should be done in future.

Limitations

In this study, participants were not randomly sampled and the total number of participants was small. Future studies addressing these limitations should be conducted so that results can be generalized. In the present study, all participants were women. In future studies, both men and women should be investigated to compare both genders and clarify any differences between genders.

Conclusion

In the present study, emotional or instrumental social support from acquaintances was lower than that from family or friends. Gratitude was positively correlated with all social support types except for instrumental social support from acquaintances, and SOC was positively correlated with emotional and instrumental social support from family and emotional social support from acquaintances. Gratitude and emotional social support from family was positively associated with SOC. These results indicate that emotional social support from family was related to both gratitude and SOC.

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Disclosure

The authors report no conflicts of interest in this work.

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